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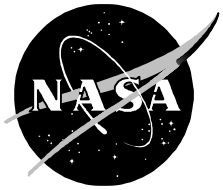
PROGRAM INFORMATION SYSTEMS MISSION SERVICES

NASA Property Systems Centralization

DRAFT Implementation Plan

Version 1.0

December 23, 2002



National Aeronautics and Space Administration

Marshall Space Flight Center
Huntsville, Alabama

NASA Property Systems Centralization Implementation Plan

Version 1.0

December 23, 2002

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Preface

This document is under configuration control of the Marshall Space Flight Center. Changes to this document will be made by NASA Change Control Requests (1620 Form) or by complete revision. Questions concerning this document should be addressed to:

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1.0 INTRODUCTION

This Implementation Plan (IP) was developed for centralization of the National Aeronautics and Space Administration (NASA) Property Systems, which include the NASA Equipment Management System (NEMS), the NASA Property Disposal Management System (NPDMS), the NASA Supply Management System (NSMS)/ NASA Online Supply Catalog (NOSC). The Consolidation Center (CC) at the Marshall Space Flight Center (MSFC) (hereafter referred to as "CC") will be responsible for the production computing environment, Center-by-Center implementation, and sustaining engineering support for the Core software for the NASA Centralized Property Systems (hereafter referred to as Property Systems).

The NASA property systems are hosted on the mainframe computer systems at the NASA Automated Data Processing (ADP) Consolidation Center (NACC) and are currently distributed on separate partitioned environments for the participating Centers. Each Center is responsible for operating these property systems from their remote locations. Implementation of the centralized property systems will create a single centralized operational environment for the systems with consolidated Agencywide databases, and a centralized interface between NSMS and NOSC.

1.1 Purpose

The primary purpose of this IP is to define the implementation tasks and objectives, and establish task responsibilities and management controls. It provides an overview, describes the organizational structure to be used to implement and support the systems, defines the task structure, provides details of the specific tasks to be performed, and establishes an implementation schedule for the participating Centers.

1.2 Scope

This IP covers the implementation support and associated activities for the Office of the Chief Information Officer (CIO) Sustaining Engineering Support for Agencywide Administrative Systems (SESAAS) Team (hereafter referred to as "SESAAS"), the NACC, Center functional support personnel (Functional Sponsor), and Center technical support personnel. The activities identified in this IP must be completed on time to ensure a successful deployment of the property systems for each participating Center.

2.0 OVERVIEW

The NASA CC centralization support includes all the tasks associated with setting up the computing environment, developing and testing core consolidated application software systems and databases and data conversion tools, and the Center-by-Center implementation of the centralized property systems. These tasks include assessment of Center-unique data and processing requirements, data interface definition/requirements, system configuration, system integration, technical training, testing, and production deployment.

2.1 Background

During fiscal year 2002, NASA Headquarters Code JG, Logistics Management, made a decision to centralize the NASA NSMS, NEMS, and NPDMS property systems and databases. Centralization of these systems and databases will result in significant cost savings and efficiencies for the participating NASA Centers. The Planning Phase for the centralization project began in July 2002.

2.2 Goals and Objectives

The goal of this IP is to ensure the successful implementation and deployment of the centralized property systems at participating Centers. To achieve this goal the following tasks must be performed:

- Establish a mainframe computing environment, hardware, and communications to support each of the three centralized systems
- Upgrade the property core systems required to support the consolidated databases for the Agency
- Disposition the Center-unique data and incorporate into the centralized environment
- Migrate the Center-unique modules for operations in the centralized environment
- Interface the required data from the centralized systems with external systems
- Train Center technical/functional support personnel
- Implement the centralized systems in the CC computing environment
- Implement each Center into the production centralized environment
- Conduct Government functional and operational testing
- Conduct Operational Readiness Review (ORR)

- Deploy the centralized systems according to the Center-by-Center deployment schedule.

2.3 Assumptions and Constraints

The following are the assumptions and constraints identified for centralization tasks. Each assumption or constraint affects the manner in which the identified implementation support will be performed and the cost required to provide the required services.

1. Centers will upgrade to the latest software releases for all of the property systems prior to transitioning to the centralized systems.
2. Centers will analyze and update their operational processes, if needed, to accommodate centralization of the property systems
3. The Center-by-Center implementation schedule will be adhered to as stated.
4. The CC will implement a charge-back methodology to account for the Centers' utilization of the centralized systems resources.
5. There should be no additional Wide Area Network (WAN) cost associated with the implementation of the centralized property systems.
6. Each NASA Center will be responsible for testing the centralized systems from their Local Area Network (LAN) and with their printer configurations.
7. All centralized systems software upgrades required will be implemented under a CC-approved Configuration Management (CM) Plan.
8. CC will assume responsibility for monitoring production support of batch processing, and will contact the appropriate support personnel should a scheduled job fail.
9. Each Center will continue to provide operational support for the centralized property systems.

2.4 Risk Evaluation

The following list represents potential risks associated with the centralization of these systems. Following the definition of the risks are the actions being taken to mitigate the risks.

New Technology

Risk – Most modern data systems achieve their benefits through employing a number of powerful and different technologies. Integration of these newer technologies presents a measure of risk.

Mitigation – No new technology has been introduced.

Operational Process Updates

Risk – Implementation of the centralized property systems may require the NASA Centers to update some of their Center-unique operational processes and interfaces.

Mitigation – Center interfaces and Center-unique processes will be examined during the design phase, and additional libraries will be set up in the centralized environment to address Center-unique, read-only modules and data-update modules. Every effort will be made to minimize impacts to existing interfaces and Center processes.

Core Software

Risk – Problems may be encountered during scheduled software releases of the core software and database products with regard to integration support of non-core software, version updates, and specific processing requirements.

Mitigation – Software Releases will be scheduled and release information such as Release Plans, Version Description Documents (VDDs), and updated User and Operations Guides (UOG) will be provided for all Beta and production releases of the centralized property systems. This information will state changes to the software, installation procedures, and expected results of the changes.

Configuration Management

Risk – Maintaining the configuration integrity of Agencywide software systems requires systematic configuration control processes to minimize the risk of software corruption.

Mitigation – Application software will not be deployed on client or desktop equipment Agencywide, but rather on the CC mainframe at the MSFC. Please see Section 7.2.1, Configuration Management, for additional information on the mitigation of this risk.

Production Environment Performance

Risk – Scheduling production Batch Jobs in the consolidated environment may impact the timing of a Center receiving reports and products.

Mitigation – A Production job staging and sequencing approach will be developed to ensure appropriate backups are taken during daily production processes for restoring a given Centers' data on the centralized database with minimum impact to other Centers.

Integrated Financial Management Program (IFMP)

Risk – IFMP requirements and priorities may adversely impact Center support.

Mitigation – IFMP impacts will be addressed on a case-by-case basis and directed to management, if warranted.

2.5 Technical and Operational Requirements

NASA's centralized property systems must support the following technical and operational requirements:

1. Provide remote Center users the same or improved level of access to property systems
2. Provide Property Application Administrators the capability to enter and maintain Center-specific data for user/application security controls for their Center
3. Provide Centers the capability to receive and send data from and to external sources.

2.6 Functional Requirements

There will be no core functionality modifications to the property systems during the centralization process. Any changes that may be required to the key functional features of the centralized property systems will be submitted for disposition during the appropriate Configuration Control Board (CCB) meetings. All required operational changes will be documented in the UOGs.

3.0 TASKS OVERVIEW

3.1 Tasks Definition

Figure 3.1 depicts the major tasks required to complete the implementation of the centralized property systems. A few of these tasks will be completed in incremental steps throughout the centralization process and will appear as subtasks in the Implementation Schedule defined in Appendix A. Microsoft Project Task IDs (column 1) from the Implementation Schedule have been provided as a cross-reference to the major tasks in Figure 3.1.

TASK	RESPONSIBILITY	PURPOSE	SCHEDULE ID
Establish Center Transition Agreement	CC and Centers	Agree on the Centers' requirements for operational deployment	11, 28, 98*
Identify Center-unique modules	Centers and CC	Analyze and identify Center-unique modules for operations in the centralized environment	18, 23, 38
Identify Center-unique code changes in the Core software systems	Centers and CC	Identify and disposition the Center-unique code changes made to core software which may be candidate for Core implementation	18, 23, 38
Identify Center-unique data elements and determine disposition of same	Centers and CC	Data elements need to be dispositioned as Core Database data or Center-unique data	18, 22, 23, 38
Establish Center production processing requirements and schedule	Centers and CC	Provide for load planning and processing backups and restores	30, 31, 38
Update Operational processes	Centers	Prepare for any operational differences between the distributed and the centralized operation	30, 38
Define Center data conversion requirement Build data conversion software	CC and Centers	Populate the Centralized database with Centers' data	22, 48, 49, 57
Define Center data archival requirement Build data archival software	CC and Centers	Archive Centers' History data	22, 49, 59
Update Core systems	CC	Prepare Core software applications and consolidated databases for operations in the centralized environment	47, 48, 55

Update Center-unique modules	Centers	Prepare Center-unique modules for operations in the centralized environment	48, 61
Establish test and production environments Load application, database, Center-unique modules, and system software	CC	Prepare the test environment for Government testing, and prepare the production environment for production operations	78, 80, 81, 82
Conduct technical support Training	CC and Centers	Ensure that center technical personnel are ready for technical support of the centers' unique software	75
Assist Centers with functional operational Training	Centers and CC	Ensure that center functional personnel are ready for production operations	74, 76
Populate test databases with Centers' data	CC and Centers	Setup and populate test databases with Center-specific test data	81
Conduct Government functional and operational testing	Centers	Ensure that the centralized property systems (Beta version) can be operated from the remote Center locations and that all systems perform required functional processes correctly	84
Populate database with Centers' data Archive Centers' data	CC and Centers	Migrate the Centers' data from the distributive databases to the Centralized database and archive history data not required for daily operations	92, 99*
Regression Test production systems/environment	CC	Ensure that systems are ready for production operations and that the integrity of the migrated data was maintained during migration and archival.	91
Conduct Operational Readiness Review	CC and Centers	Ensure all is ready for production operations	95, 100*
Switch production to centralized systems	CC and Centers	Begin production operations in the centralized environment	101*
Provide Sustaining support	CC and Centers	Ensure that all system products remain operationally ready to current requirements	N/A
* — These tasks are scheduled in the IP to occur for each Center deployment or migration to one of the Centralized Property Systems.			

Figure 3.1—NASA Property Systems Implementation Tasks

Support for each of the tasks listed above is defined in the following paragraphs:

3.1.1 Establish Center Transition Agreement

SESAAS will work with each participating Center to develop a Center Transition Plan that defines the duties, responsibilities, and schedule for implementing the centralized property systems. The CC and appropriate Center Management will review the Plan for concurrence. Concurrence with the Center Transition Plan will constitute a Transition Agreement.

3.1.2 Identify Center-unique Modules

All participating Centers will conduct an assessment of their Center-unique processes and deliverables, and will identify site-unique software modules and data files that are required for current production processes. Each Center will be responsible for identifying Center-unique modules and associated data files to be migrated to the centralized environment.

The Center-unique modules are to be identified as read-only or read/write (update) software modules. Two site-unique libraries, one for site-unique update modules and one for site-unique read-only modules, (Figure 6.1) will be established in the new centralized environment.

Center-unique modules that are duplicated across the Centers will be considered for Core implementation.

3.1.3 Identify Center-unique Code Changes in the Core Software Systems

Each participating Center will be responsible for identifying Center-unique software changes they have made to core modules. Centers will be required to generate Change Control Requests (CCRs) describing these core requirement changes. These CCRs will be presented to the CCB for consideration as additions to the centralized system core software.
If the CCR is accepted by the CCB, the CCR will be scheduled for implementation in a subsequent release of the core software system. If the CCB rejects the CCR, the center will be responsible for generating a center unique process and submitting it to SESAAS for incorporating it into the production environment as a center unique process.

3.1.4 Identify and Disposition Center-unique Data Elements

Each Center will be responsible for identifying and documenting all Center-unique data elements or fields that must be added to the core databases to support production processes. SESAAS DBAs will coordinate the addition of new Center-unique data elements to the core databases with the Centers to ensure the data element names comply with the current naming conventions established for the NASA property systems.

In addition, each Center will document their respective user authentication and access control requirements. NACC, SESAAS DBAs, and the Development Teams will need these requirements to setup mainframe system access, database access privileges, and application access and controls.

3.1.5 Establish Center Production Processing Requirements and Schedules

SESAAS and NACC will conduct a detail analysis of Data Call information received from the Centers, and will work with the Centers to develop the production processing requirements and daily production job schedules to be implemented at the CC.

3.1.6 Update Operational Processes

Each Center will analyze their current operational processes and make any modifications necessary to operate these processes utilizing the centralized systems from their remote locations.

3.1.7 Define Center Data Conversion Requirement and Build Conversion Software

SESAAS will analyze the information received from tasks 3.1.2, 3.1.3, and 3.1.4 and will design and develop any special data conversion or interface software required to upload Center-specific data.

3.1.8 Define Center Data Archival Requirements and Build Archival Software

SESAAS, with assistance from the Logistic Service Department, will document the operational archival requirements to be implemented for the centralized property systems, develop the archival software needed to meet the requirements, and will be responsible for archiving history data once all data for a Center are migrated to the consolidated databases. Archived data will be retained based on NPG – 1441 requirements.

3.1.9 Update Core Application Systems

SESAAS will be responsible for developing and testing the core software applications required for centralizing property systems. SESAAS will provide and maintain documentation for the core systems and database files and will update the existing UOGs for the centralized systems.

SESAAS will conduct two tests of varying intensity on the centralized property systems during the development phase and prior to the Government testing phase. First, the SESAAS developers will conduct unit and integration tests during consolidation of the property systems. Second, the SESAAS Independent Test Team will conduct system and functionality tests for each of the centralized systems.

3.1.10 Update Center-unique Modules

Centers will update their Center-unique software modules, as required, to ensure Center operations and deliverables will not be impacted as a result of migrating to the centralized property systems. These updates will include configuring their local Information Technology (IT) hardware and software systems to interface with the new centralized property systems.

Centers will submit their Center-unique, read-only and update software modules to the SESAAS Configuration Management/Quality Assurance (CM/QA) Team for implementation in the CC centralized system production libraries. Read-only modules will be cataloged and migrated to the Center-unique, read-only library without testing. Update modules will be tested to validate that the module only updates data for the requesting Center prior to it being migrated to the Center-unique, read/write library.

SESAAS will, on a charge-back basis, assist the participating Centers in the upgrade efforts required to implement Center-unique operational processes in the new centralized environment.

3.1.11 Establish Test and Production System Environments

SESAAS and NACC will conduct a detailed analysis of the centralization requirements and the production process requirements established in task 3.1.5, and will identify and establish the mainframe hardware environments and software required to support Agencywide test and deployment of the centralized property systems. SESAAS and NACC will be responsible for the following support tasks:

- Analysis and development of computing system requirements for production data management, user access, and remote system interfaces.
- Installation of the centralized property application software systems and databases on the CC mainframe system behind the NACC firewall at the MSFC complex. This equipment is described in Section 6 of this document.
- Documenting the centralized property systems architecture and system configuration, and presenting the configuration to MSFC IT Security for evaluation

3.1.12 Conduct Technical Support Training

SESAAS and the Centers will conduct an assessment of user training needs during the project requirements phase, and if Center-level training is required, then a Training Plan will be developed to define the “Train-the-Trainer” training to be conducted and the approach to conduct the training. SESAAS will provide “Train-the-Trainer” training to participating Centers’ technical trainers. SESAAS will develop a training schedule, and register Center personnel for the “Train-the-Trainer” sessions to be held at MSFC and distribute course materials.

The SESAAS and NACC teams will provide logistics support for required training activities during centralization and deployment. This includes support for data preparation and software installations as required.

3.1.13 Assist Centers With Functional Operational Training

SESAAS will assist the Centers in developing Center-specific Training Plans to train Center functional personnel prior to the deployment phase. Each Center will be responsible for training their functional personnel.

3.1.14 Populate Test Databases with Center Data

The NACC team will ensure that sufficient disk space, network interfaces, and firewall accesses are established to securely transfer Center data files to the centralized environment. SESAAS DBAs will assist the Centers in loading, migrating, and converting Center-specific test data onto the Centralized databases.

3.1.15 Conduct Government Testing

Prior to Government test phase, SESAAS will work with each Center to generate a detailed Center-level Test Plan outlining activities, responsibilities, test criteria, and other information appropriate to test the functionality and required interfaces of the centralized systems.

Upon successful completion of the development, training, and data population tasks, CIO Management, SESAAS, and Center representatives will conduct a Test Readiness Review (TRR). At this time, a decision will be made whether to proceed with Government testing.

Each Center will conduct Government Beta functionality testing to verify that the centralized core systems perform operational processes correctly from their remote locations, and that the centralized mainframe environment will be able to process all Center functions in a timely manner under a peak load condition. During this phase of testing, all participating Centers will be invited to test their Center-unique processes and interfaces against the Beta versions of the centralized systems.

SESAAS and NACC will provide logistics support for government/user testing. This includes setting up the test environment and loading test files as required.

3.1.16 Populate Centralized Databases with Center Data and Archive Centers' Data

SESAAS DBAs will transfer and convert all Center production data to the centralized databases, and data not required for online production use will be archived at the CC. Archived data will be available for recall on an as needed basis.

The Transient Storage Area on the CC mainframe system will be used for all automated data exchanges with the centralized property systems. The following are examples of the types of files that may be exchanged via the Transient Storage Area:

- Accounts – User identification and access control information (import data)
- Input Records – Centralized Property Systems (import data)
- Output Records – Such as NOSC and General Services Administration (GSA) data (export data)
- Center-specific – Data files modified by Center-unique modules (import data)

Center-specific data files to be exchanged via Transient Storage will be detailed in the Transition Agreements. Centers will establish the frequency of their data imports and exports.

3.1.17 Regression Test Production Systems/Environment

Following the Government testing phase and completion of any required software fixes, all production ready software systems will be baselined and a regression test of the production environment will be conducted by SESAAS. A Production Systems Readiness Review will be conducted following the regression tests.

3.1.18 Conduct Operational Readiness Review

Upon completion of the above tests, CIO, participating Centers, NACC, and SESAAS, as a joint effort, will hold an ORR to certify the centralized systems' readiness for production deployment. At this time, the decision will be made whether to proceed with the production deployment of centralized systems.

3.1.19 Switch Production to Centralized Systems

The SESAAS team will coordinate the deployment of centralized systems with the participating Centers. This will include data population of Center-specific data on the consolidated production databases. Please see Section 7.4 for more details on the Center installation and transition process.

3.1.20 Provide Sustaining Support

CIO will be responsible for providing the sustaining engineering support management. This includes customer and technical support, software upgrades for latent and operational defects, and documentation upgrades. The NACC and SESAAS teams will coordinate and provide sustaining support for hardware and system software, as well as installation of software releases.

As core software releases are made, the SESAAS team will be responsible for validation of the upgraded software for operational and system functionality. The SESAAS DBAs will be responsible for applying any database changes that need to be made to support the centralized core property systems.

Each participating Center will be responsible for maintaining their Center-unique software modules and submitting these modules to SESAAS CM/QA for migration to the centralized production system environment.

4.0 ORGANIZATIONAL STRUCTURE

The organizational structure and areas of responsibility for the implementation tasks associated with the centralization of NASA property systems will consist of the following:

The Office of the Chief Information Officer (CIO)

- CIO – Technical and Project Management for the Agency-level implementation of the centralized systems
- SESAAS Team – Centralization of NASA property systems including, modifications to the NSMS / NOSC, NEMS, and NPDMS application software systems, user documentation, CM/QA support, Database Administration support, drafting Center Transition Plans, "Train-the-Trainer" training, independent functional testing, development schedules, Implementation Plan, and implementation support.
- NACC Computer Systems Team –IT and computer systems support.

The Logistics Services Department (AD40)

- Program Functional Manager (PFM) – Project Functional Coordination and Center Contacts and Interface. Defines archival requirements, approves Transition Agreements, participates in TRRs and ORRs.

Participating Centers

- Center Management (Supply and Equipment Management Officers and Property Disposal Officers) – Approves Transition Agreements, participates in TRRs and ORRs.
- Center Functional Managers (CFMs) – Responds to Data calls, identifies Center-unique processes, data fields, software modules, and interface requirements. Migrates Center software and databases to the centralized environment.

5.0 TASK STRUCTURE

The key management elements of the centralization task are defined in this section. These activities include task deliverables, reviews, functional expertise, and technical expertise.

5.1 Deliverables

The centralization and implementation task deliverables under this IP are shown in Figure 5.1.

DELIVERABLE	RESPONSIBILITIES and COMMENT
Data Call Information	CFMs
Center Transition Agreements	Center Management/PFM/SESAAS
Centralization Requirements	SESAAS/PFM/CFMs
Employee Authentication Rules and System Interfaces	CFMs/NACC
Center Implementation and Schedule	Center Management/PFM/SESAAS
Technical Infrastructure for NASA Centralized Property Systems	CIO, NACC, and SESAAS
System Design Specifications	SESAAS
Centralized Property Systems Application Core Software	SESAAS
Data Conversion Rules and Software	SESAAS
Data Archival Requirements and Software	PFM/SESAAS
User and Operations Guide (UOG)	SESAAS
Version Description Document (VDD)	SESAAS
Center-Specific Training Plan	CFMs/SESAAS
Center-Specific Test Plans	CFMs/SESAAS
Test Data Scenarios (part of VDD)	SESAAS
Test Readiness Review	CIO/Center Management/PFM/CFMs/SESAAS
Center Test Reports	CFMs
Operational Readiness Reviews	CIO/Center Management/PFM/SESAAS

Figure 5.1—NASA Centralized Property Systems Implementation Deliverables

5.2 Reviews

Regularly scheduled implementation task status reviews will be conducted with CIO and NASA Property Systems PFM to review the status of the software development and database consolidation efforts. Implementation task reviews between CIO, Center representatives, NACC, and SESAAS will be conducted during scheduled CCB Meetings and on an as-required basis.

Formal reviews will include a TRR prior to Government Beta Test, and an ORR will be conducted for each Center prior to deployment of a centralized system. Section 7.4, Installation and Transition Process, contains more specifics on conducting reviews.

5.3 Functional Expertise

Each participating Center will provide functional expertise for coordinating the implementation of the centralized systems, providing Government Beta tests, and ensuring Center-unique business processes operate correctly after centralization at their Center. Functional experts from the participating NASA Centers will provide the SESAAS DBAs their Center-specific data requirements required to set up and populate the consolidated databases.

5.4 Technical Expertise

CIO will provide the Technical and Project Management expertise for the Agency implementation of centralized systems. SESAAS will provide the software and documentation support required to centralize the core property applications and database systems. SESAAS will establish an operational interface between NSMS and the Web-based NOSC system. SESAAS will provide the sustaining engineering support for the centralized systems after Agency implementation.

6.0 TECHNICAL INFRASTRUCTURE

The NASA centralized property systems will operate in the following technical infrastructure:

- Computing Environment -- IBM 9672 Mainframe, single LPAR, located at the NACC
- Operating System -- IBM Z/OS version 1
- Application Software – Software AG Natural
- Database Management System – Software AG ADABAS
- Communications Network – WAN provided by NASA Integrated Services Network (NISN).
- LAN and desktop systems – Each participating Center will be responsible for their LAN and desktop systems
- Mainframe Interface Software for WEB Applications – Software AG Entire X Broker

6.1 System Configuration

Figure 6.1 depicts the centralized configuration.

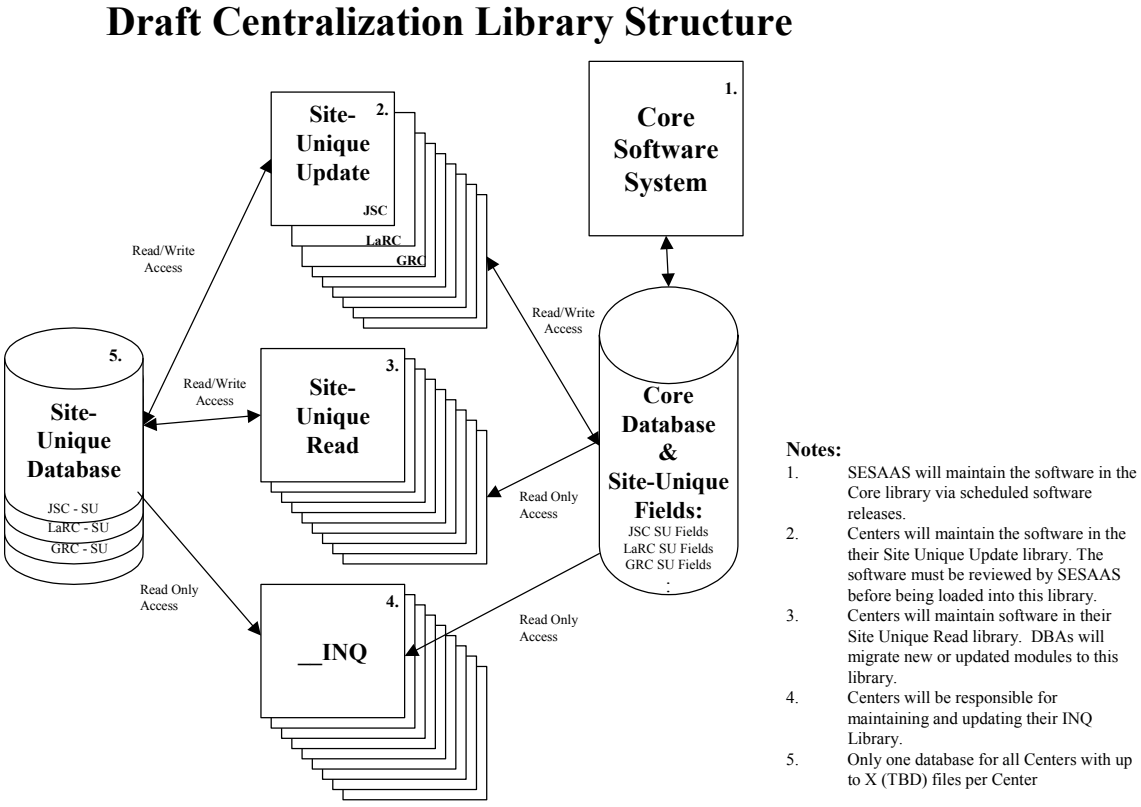


Figure 6.1—NASA Centralized Property System Architecture

6.1.1 System Hardware

System hardware includes all mainframe-related components, such as memory, disk storage, tape drives, and communications devices. NACC will provide the system hardware for centralization of the property systems.

6.1.2 System Software

System software includes all software that is not normally accessed by the functional/business users, such as operating systems, database management systems, communications software, and systems management tools. It also includes the configuration and integration of these software components. NACC will provide the systems software and maintenance support such as vendor upgrades.

6.1.3 Communication Networks

Communications networks include, in addition to the specific hardware and system software components, the location and interrelationship of network components,

communication links, protocols and integration services. The NISN provides WAN access to the CC mainframe environment.

6.1.4 Systems Management and Administration

The NACC Team will provide Systems Management including system monitoring, alert management, database administration, tape management, and problem diagnosis and recovery.

6.2 Client Software/Hardware

User workstations/desktop hardware and operating software is the responsibility of the participating Center. Each client workstation will require an interface to the CC mainframe system for operating the centralized systems. NACC will provide mainframe user authentication and mainframe system access screens and menus for accessing centralized systems.

7.0 WORK PERFORMANCE APPROACH

This section describes the work performance approach to be taken during implementation of the centralized property systems.

7.1 Center Software Installation

No core software will be distributed to remote Center (Logical Partition) LPAR locations. Depending on Center access and security requirements established during the requirements phase, Center maybe required to use a software emulator to access the CC mainframe system. Centers may use their choice of emulators, but currently, NACC only supports the Bluezone interface software. No additional vendor software will be required to operate the centralized systems from the remote Center locations.

7.2 Sustaining Engineering Support

Sustaining engineering support (software modifications) will be limited to latent defect fixes, regulatory (none known at this time) and make operable changes during centralization of the property systems.

Key areas for concern during implementation of the centralized systems include configuration management, software and documentation management, security, backup and recovery, contingency planning, database administration and operating system software product upgrades, and Help Desk support. Each of these areas is addressed below.

7.2.1 Configuration Management

A CCB is in place for each of the property systems. The CCBs meet monthly, and will meet, as needed, to review and disposition configuration change requests, which address operational and work stoppage. As noted above, design, policy, and user enhancement changes will be reviewed and dispositioned during the regularly scheduled CCB meetings, but these changes will be scheduled for implementation after the deployment phase.

Work stoppage emergency, latent defect corrections will be made as required ensuring that production processing continues without disruption.

All core software will be released in accordance with the processes and procedures contained in the SESAAS Configuration Management Plan.

7.2.2 Software and Documentation Management

Physical configuration management control over the core software and the documentation will be the responsibility of the SESAAS Configuration Control Manager. However, no changes will be made to the systems without prior CCB approval. The Software AG PAC product or a similar automated software configuration management tool will be used to control the centralized property systems core source code or software. Core

software and system documentation configuration management will be controlled with manual and automated processes, as appropriate.

Centers will be responsible for development and control of Center-unique software and documentation. Software implemented on the CC mainframe environment or libraries will be backed up by the NACC and managed under their System Administration Procedures.

7.2.3 Security, Backup, Recovery, and Contingency Planning

The NACC team will provide mainframe system administration, Natural network administration, computer access security, and systems backup and recovery. Systems-level backups are performed daily, weekly, and monthly. Backup tapes are maintained for five cycles (days, weeks, and months).

The NACC team will develop and test a Contingency Plan to ensure that systems and processes are in place to meet essential property management requirements in the event of failure of the primary systems.

7.2.4 Database Administration and Operating System Upgrades

The SESAAS DBA Team will provide the database administration, the database management system product administration, environment maintenance, and production operating systems. This activity includes the installing and testing new Software AG product releases.

7.2.5 Help Desk

The NISC Agencywide Services Help Desk will provide help desk support for the centralized property systems. The NISC provides support 7 days a week, 24 hours a day. The SESAAS Application Technical Leads will be the primary points of contact during the Beta testing and deployment phases.

7.3 Deployment Schedule

The participating NASA Centers will be migrated to the NSMS, NEMS, and NPDMS centralized systems per the implementation schedule defined in Appendix A. The success of the scheduled migrations or deployments will depend largely on the readiness of the Center and their ability to support the deployment and implementation process as defined under Section 7.4, Installation and Transition Process.

7.4 Installation and Transition Process

The transition of the Agency to the centralized property systems will be accomplished through the process defined below.

7.4.1 Transition Agreement

CIO, MSFC Logistic Department representatives, and SESAAS, along with each Center's representative, will develop a Center Specific Transition Plan that documents the tasks and responsibilities for deploying the centralized systems for the respective Center. The Transition Plans will establish an agreement (duties, responsibilities, and schedule) between the CC and the participating Centers. The objective of these Plans is to ensure that all areas of the Center's property/asset management operational processes have been addressed, and that day-to-day support, during the transition, is provided with minimum disruption to Center operations.

The completed Transition Plan will be reviewed with the CC and appropriate Center Management for their concurrence prior to deployment. Concurrence with the Transition Plan will constitute Transition Agreement. Appendix B contains a sample Transition Plan/Agreement Template.

7.4.2 Establish Data Interfaces

NACC will support each Center to ensure that centralized property systems reports and exports are routed to the correct printer or LPAR. All data exchange interfaces will be documented in the Transition Plan and the Plan will be used during setup of the operational environment. All data interfaces will be analyzed or scanned by the appropriate IT Security groups. This analysis will become part of the centralized Risk Assessment Plans.

7.4.3 Populate Property Systems Databases

SESAAS DBAs will be responsible for the initial setup and population of the core systems databases for each Center. SESAAS will provide any special data conversion or interface software required to upload Center-specific data and user authentication data/tables.

SESAAS will be responsible for archiving history data once all data for a Center are migrated to the consolidated databases. Archived data will be retained based on NPG – 1441 requirements. The following retention time frames will be setup:

- NEMS – Keep 3 years
- NPDMS:
    - Donation – Keep 3 years
    - Less than $25,000 – Keep for 3 years after final payment
    - Greater than $25,000 and less than or equal to $100,000 – Keep for 6 years after final payment
    - Over $100,000 – Keep permanently
- NSMS – Keep 3 years

7.4.4 Center Training

SESAAS will be responsible for coordinating and conducting any "Train-the-Trainer" training required for the initial deployment of the centralized systems. SESAAS will assist the Centers in developing Center-specific Training Plans to train Center personnel prior to the deployment phase.

7.4.5 Testing

The SESAAS Software Development Team will conduct unit and integration tests during the development phase, and the SESAAS CM/QA Team will conduct independent tests of the systems prior to Government Beta tests.

SESAAS will assist the Centers in developing a Center-Specific Test Plan (CSTP) and test scripts needed to test the centralized systems from their remote locations. NACC will set up test environments and test databases to support Government verification and acceptance tests (Center-specific Beta tests).

A TRR will be conducted prior to the Center/Government Beta tests. The TRR will ensure that all set up processes have been completed and that the application systems and databases have been populated, as required, to proceed with Center testing. Appendix C, which accompanies this document, contains a sample TRR template. After the TRR, Center Functional Representatives will conduct the tests specified in the Center's Test Plan. The Center Functional Representatives will provide validation of the test results. SESAAS will assist the Centers in conducting Beta tests and validating the results as needed. The SESAAS DBAs will load, backup, and restore software and databases on an as required basis, and will assist the Test Teams with user interface issues as needed.

Following the Government testing phase and completion of any required software fixes, all production-ready software systems will be baselined and a regression test on the production environment will be conducted by SESAAS. A Production Systems Readiness Review will be conducted following the regression tests

7.4.6 Operational Readiness

Prior to switching each participating Center over to the centralized systems, an ORR will be conducted to verify that all functional processes execute as intended during the Government test phase, that all elements of the Transition Agreement have been satisfied, and that current production data for the Center have been uploaded to the centralized databases. The ORR will also status that the appropriate Center personnel have been properly trained to implement the centralized systems into their business process. Appendix D, which accompanies this document, contains a sample ORR template.

7.4.7 Production Deployment

When the ORR is successfully completed and approved, SESAAS and NACC will work with the Centers to finalize production deployment of the centralized systems. After these activities are completed, the Center will be operational on the centralized systems environment.

Appendix A - Implementation Schedule

The following high-level project schedule is a work in progress and will change should additional requirements surface during the centralization process. This schedule contains the tasks identified in Section 3.1-Tasks Definition of this document, but these tasks are not necessarily in the same order as they are listed in Figure 3.1. Major tasks were broken down into subtasks when more detail was needed.

ID	Task Name	Duration	Start	Finish	Resource Names
1	**Centralization of NASA Property Systems (Draft Schedule)**	**339 days**	**Thu 5/16/02**	**Mon 9/15/03**	
2	**Planning Phase**	**175 days**	**Thu 5/16/02**	**Wed 1/22/03**	
3	**Management Plans**	**175 days**	**Thu 5/16/02**	**Wed 1/22/03**	
4	Prepare & Update Project Plan	154 days	Thu 5/16/02	Thu 12/19/02	SESAAS
5	**Draft & Update Centralization Implementation Plan**	**30 days**	**Thu 10/31/02**	**Fri 12/13/02**	
11	**Generic Center-specific Transition Agreements**	**35 days**	**Mon 12/2/02**	**Wed 1/22/03**	
17	**Requirements Definition Phase**	**165 days**	**Wed 7/3/02**	**Wed 2/26/03**	
18	Conduct Data Calls	98 days	Tue 7/9/02	Fri 11/22/02	Centers
19	Received from Center	15 days	Mon 11/25/02	Mon 12/16/02	
20	**Determine Centralization Application & Database Requirements**	**158 days**	**Wed 7/3/02**	**Fri 2/14/03**	
21	Systems' Functional Requirements	117 days	Mon 7/8/02	Thu 12/19/02	Centers,SESAAS
22	Database and Data Entity Requirements	120 days	Wed 7/3/02	Thu 12/19/02	Centers,SESAAS
23	Center-unique Requirements to be Incorporated into Core	115 days	Wed 7/10/02	Thu 12/19/02	Centers,SESAAS
24	Internal Interface Requirements	117 days	Mon 7/8/02	Thu 12/19/02	Centers,SESAAS
25	External Interface Requirements	117 days	Mon 7/8/02	Thu 12/19/02	Centers,SESAAS
26	Draft Requirements Document	70 days	Wed 9/25/02	Mon 1/6/03	SESAAS
27	Preliminary Training Requirements (If Any?)	4 days	Tue 2/11/03	Fri 2/14/03	Centers,SESAAS
28	Update Transition Agreements Reflecting Requirements	19 days	Fri 12/20/02	Fri 1/17/03	Centers,SESAAS
29	**Detemine Centralization System Environments**	**57 days**	**Mon 10/21/02**	**Mon 1/13/03**	
30	Operational Requirements	54 days	Mon 10/21/02	Wed 1/8/03	Centers,SESAAS
31	Performance Requirements	54 days	Mon 10/21/02	Wed 1/8/03	Centers,SESAAS,NACC
32	Update Draft Requirements Document	14 days	Mon 12/23/02	Mon 1/13/03	SESAAS
33	Identify Production LPAR	39 days	Thu 11/14/02	Fri 1/10/03	NACC
34	Conduct NACC System Requirements Review	0 days	Mon 1/13/03	Mon 1/13/03	NACC,SESAAS
35	**Coordinate Center Visits/ViTS/Telecons**	**37 days**	**Wed 12/18/02**	**Tue 2/11/03**	
36	Prepare Discussion Topics/Slides	23 days	Wed 12/18/02	Wed 1/22/03	SESAAS
37	Schedule Center Sessions	23 days	Wed 12/18/02	Wed 1/22/03	Centers,SESAAS,PFM
38	Conduct Center Visits/ViTS ? (TBD)	20 days	Tue 1/14/03	Tue 2/11/03	Centers,SESAAS,PFM
39	Update Requirements Document After Center visits	5 days	Wed 2/12/03	Wed 2/19/03	SESAAS
40	Conduct SRR	0 days	Fri 2/21/03	Fri 2/21/03	Centers,SESAAS,PFM
41	Update/Baseline Centralization System Requirement Specifications	2 days	Tue 2/25/03	Wed 2/26/03	SESAAS
42	**Establish Centralization System Environment**	**49 days**	**Fri 1/10/03**	**Fri 3/21/03**	
43	Establish LPAR / Databases	25 days	Fri 1/10/03	Fri 2/14/03	NACC
44	Establish RACF Security	49 days	Fri 1/10/03	Fri 3/21/03	NACC,SESAAS,Centers
45	Establish Application Environments	14 days	Tue 2/11/03	Mon 3/3/03	SESAAS
46	**System Design Phase**	**92 days**	**Tue 10/29/02**	**Thu 3/13/03**	
47	Design Core Application/Program Units	90 days	Wed 10/30/02	Wed 3/12/03	SESAAS
48	Design Center-unique Data Files	91 days	Tue 10/29/02	Wed 3/12/03	Centers,SESAAS
49	Design Data Conversion and Archive Programs	91 days	Tue 10/29/02	Wed 3/12/03	SESAAS
50	Develop Unit/Integration Test Plans	57 days	Wed 12/18/02	Wed 3/12/03	SESAAS

ID	Task Name	Duration	Start	Finish	Resource Names
51	Conduct Design & Test Plan Walk-through	91 days	Wed 10/30/02	Thu 3/13/03	SESAAS
52	Draft Application System Design Specifications	37 days	Thu 1/23/03	Mon 3/17/03	SESAAS
53	Assemble Critical Design Review Material	3 days	Tue 3/18/03	Thu 3/20/03	SESAAS
54	Conduct Critical Design Review (CDR)	0 days	Wed 3/26/03	Wed 3/26/03	Centers,SESAAS,PFM
55	**Software Application Modification Phase**	**140 days**	**Wed 9/11/02**	**Wed 4/2/03**	
56	Code/Test Core Software Modules	140 days	Wed 9/11/02	Wed 4/2/03	SESAAS
57	**Data Conversion software**	**140 days**	**Wed 9/11/02**	**Wed 4/2/03**	
58	Code/Test Data Conversion Programs	140 days	Wed 9/11/02	Wed 4/2/03	SESAAS
59	**Data Archive software**	**50 days**	**Wed 1/22/03**	**Wed 4/2/03**	
60	Code/Test Data Archive Programs	50 days	Wed 1/22/03	Wed 4/2/03	SESAAS
61	**Center-unique Software [Center Provided]**	**60 days**	**Mon 2/3/03**	**Mon 4/28/03**	
62	Update/test Center-unique Modules	60 days	Mon 2/3/03	Mon 4/28/03	Centers
63	Draft VDDs	30 days	Mon 2/24/03	Fri 4/4/03	SESAAS
64	Update Users and Operations Guides	30 days	Mon 2/24/03	Fri 4/4/03	SESAAS
65	Update IT Security Plans	5 days	Thu 3/20/03	Wed 3/26/03	SESAAS
66	**Independent Testing**	**86 days**	**Tue 1/7/03**	**Thu 5/8/03**	
67	Prepare Test Plan and Scripts	50 days	Tue 1/7/03	Wed 3/19/03	SESAAS
68	Conduct Testing	20 days	Wed 4/9/03	Tue 5/6/03	SESAAS
69	Complete Updates/Fixes to Applications as Required	17 days	Wed 4/16/03	Thu 5/8/03	SESAAS
70	**Training Phase (If Required?)**	**28 days**	**Thu 3/27/03**	**Mon 5/5/03**	
71	Draft Training Plans (If Required)	10 days	Thu 3/27/03	Wed 4/9/03	SESAAS
72	Prepare User Training Material	20 days	Thu 3/27/03	Wed 4/23/03	SESAAS
73	Set up Training Environment (Production)	5 days	Thu 3/27/03	Wed 4/2/03	NACC,SESAAS
74	Conduct Functional Train-the-Trainer Training	2 days	Thu 4/24/03	Fri 4/25/03	Centers,SESAAS
75	Conduct Technical Training	1 day	Mon 4/28/03	Mon 4/28/03	Centers,SESAAS
76	Centers Conduct End User Training	5 days	Tue 4/29/03	Mon 5/5/03	Centers
77	**Government Verification and Acceptance Phase**	**49 days**	**Fri 4/4/03**	**Thu 6/12/03**	
78	Set up Beta Test Environment	5 days	Mon 4/21/03	Fri 4/25/03	NACC,SESAAS
79	Draft Center Beta Test Plan and Procedures (Centers' Task)	11 days	Fri 4/4/03	Fri 4/18/03	Centers
80	Migrate Center-unique Modules to Test Environment	7 days	Mon 4/28/03	Tue 5/6/03	Centers,SESAAS
81	Finalize Software and Data for Testing	3 days	Wed 5/7/03	Fri 5/9/03	Centers,SESAAS
82	Finalize User Ids (NACC, Databases, & Applications)	2 days	Thu 5/8/03	Fri 5/9/03	NACC,SESAAS,Centers
83	Conduct Test Readiness Review (TRR)	0 days	Mon 5/12/03	Mon 5/12/03	NACC,SESAAS,Centers,PFM
84	Conduct Center Beta Tests	20 days	Mon 5/12/03	Mon 6/9/03	Centers
85	Compile/Submit System Test Reports	3 days	Tue 6/10/03	Thu 6/12/03	Centers
86	**Baseline Application Software**	**2 days**	**Tue 6/17/03**	**Wed 6/18/03**	
87	Baseline Core Software Systems	1 day	Tue 6/17/03	Tue 6/17/03	SESAAS
88	Baseline Center-unique Modules	1 day	Wed 6/18/03	Wed 6/18/03	Centers,SESAAS
89	**System Deployment Phase**	**53 days**	**Thu 6/19/03**	**Wed 9/3/03**	
90	Refresh Centralized Operational Environment and Libraries	2 days	Thu 6/19/03	Fri 6/20/03	SESAAS
91	Regression Test Production Systems/Environment	3 days	Thu 6/19/03	Mon 6/23/03	SESAAS
92	Refresh Production Database	1 day	Mon 6/23/03	Mon 6/23/03	SESAAS
93	Conduct Production Systems Readiness Review (PSRR)	0.5 days	Mon 6/23/03	Mon 6/23/03	SESAAS,PFM
94	Prepare Application-specific ORR Material	2 days	Thu 6/19/03	Fri 6/20/03	Centers,SESAAS
95	Conduct Operational Readiness Reviews (ORRs)	0 days	Mon 6/23/03	Mon 6/23/03	NACC,SESAAS,Centers,PFM
96	**NSMS / NOSC Deployment to Centers**	**38 days**	**Mon 6/23/03**	**Fri 8/15/03**	
97	**DFRC**	**5 days**	**Mon 6/23/03**	**Fri 6/27/03**	
98	Finalize/Review DFRC's Transition Plan	1 day	Mon 6/23/03	Mon 6/23/03	Center,PFM,SESAAS
99	Fully Populate Centralized Database for DFRC, Archive	4 days	Tue 6/24/03	Fri 6/27/03	Center,PFM,SESAAS
100	Conduct Center ORR	0 days	Fri 6/27/03	Fri 6/27/03	Center,PFM,SESAAS

ID	Task Name	Duration	Start	Finish	Resource Names
101	Switch DFRC's Production To Centralized Systems	0 days	Fri 6/27/03	Fri 6/27/03	NACC,SESAAS,Center
102	**GRC**	**8 days**	**Mon 6/30/03**	**Thu 7/10/03**	
103	Finalize/ReviewGRC's Transition Plan	1 day	Mon 6/30/03	Mon 6/30/03	Center,PFM,SESAAS
104	Fully Populate Centralized Database for GRC, Archive	5 days	Wed 7/2/03	Wed 7/9/03	Center,PFM,SESAAS
105	Conduct Center ORR	0 days	Thu 7/10/03	Thu 7/10/03	Center,PFM,SESAAS
106	Switch GRC's Production To Centralized Systems	0 days	Thu 7/10/03	Thu 7/10/03	NACC,SESAAS,Center
107	**MSFC**	**4 days**	**Mon 7/14/03**	**Fri 7/18/03**	
108	Finalize/Review MSFC's Transition Plan	1 day	Mon 7/14/03	Mon 7/14/03	Center,PFM,SESAAS
109	Fully Populate Centralized Database for MSFC, Archive	3 days	Tue 7/15/03	Thu 7/17/03	Center,PFM,SESAAS
110	Conduct Center ORR	0 days	Fri 7/18/03	Fri 7/18/03	Center,PFM,SESAAS
111	Switch MSFC's Production To Centralized Systems	0 days	Fri 7/18/03	Fri 7/18/03	NACC,SESAAS,Center
112	**LaRC**	**4 days**	**Mon 7/21/03**	**Fri 7/25/03**	
113	Finalize/Review LaRC's Transition Plan	1 day	Mon 7/21/03	Mon 7/21/03	Center,PFM,SESAAS
114	Fully Populate Centralized Database for LaRC, Archive	3 days	Tue 7/22/03	Thu 7/24/03	Center,PFM,SESAAS
115	Conduct Center ORR	0 days	Fri 7/25/03	Fri 7/25/03	Center,PFM,SESAAS
116	Switch LaRC's Production To Centralized Systems	0 days	Fri 7/25/03	Fri 7/25/03	NACC,SESAAS,Center
117	**JSC**	**4 days**	**Mon 7/28/03**	**Fri 8/1/03**	
118	Finalize/Review JSC's Transition Plan	1 day	Mon 7/28/03	Mon 7/28/03	Center,PFM,SESAAS
119	Fully Populate Centralized Database for JSC, Archive	3 days	Tue 7/29/03	Thu 7/31/03	Center,PFM,SESAAS
120	Conduct Center ORR	0 days	Fri 8/1/03	Fri 8/1/03	Center,PFM,SESAAS
121	Switch JSC's Production To Centralized Systems	0 days	Fri 8/1/03	Fri 8/1/03	NACC,SESAAS,Center
122	**SSC**	**4 days**	**Mon 8/4/03**	**Fri 8/8/03**	
123	Finalize/Review SSC's Transition Plan	1 day	Mon 8/4/03	Mon 8/4/03	Center,PFM,SESAAS
124	Fully Populate Centralized Database for SSC, Archive	3 days	Tue 8/5/03	Thu 8/7/03	Center,PFM,SESAAS
125	Conduct Center ORR	0 days	Fri 8/8/03	Fri 8/8/03	Center,PFM,SESAAS
126	Switch SSC's Production To Centralized Systems	0 days	Fri 8/8/03	Fri 8/8/03	NACC,SESAAS,Center
127	**ARC**	**4 days**	**Mon 8/11/03**	**Fri 8/15/03**	
128	Finalize/Review ARC's Transition Plan	1 day	Mon 8/11/03	Mon 8/11/03	Center,PFM,SESAAS
129	Fully Populate Centralized Database for ARC, Archive	3 days	Tue 8/12/03	Thu 8/14/03	Center,PFM,SESAAS
130	Conduct Center ORR	0 days	Fri 8/15/03	Fri 8/15/03	Center,PFM,SESAAS
131	Switch ARC's Production To Centralized Systems	0 days	Fri 8/15/03	Fri 8/15/03	NACC,SESAAS,Center
132	**NEMS & NPDMS Deployment To Centers**	**48 days**	**Mon 6/23/03**	**Fri 8/29/03**	
133	**JSC**	**4 days**	**Mon 6/23/03**	**Fri 6/27/03**	
134	Finalize/Review JSC's Transition Plan	1 day	Mon 6/23/03	Mon 6/23/03	Center,PFM,SESAAS
135	Fully Populate Centralized Database for JSC, Archive	3 days	Tue 6/24/03	Thu 6/26/03	Center,PFM,SESAAS
136	Conduct Center ORR	0 days	Fri 6/27/03	Fri 6/27/03	Center,PFM,SESAAS
137	Switch JSC's Production To Centralized Systems	0 days	Fri 6/27/03	Fri 6/27/03	NACC,SESAAS,Center
138	**LaRC**	**8 days**	**Mon 6/30/03**	**Fri 7/11/03**	
139	Finalize/Review LaRC's Transition Plan	1 day	Mon 6/30/03	Mon 6/30/03	Center,PFM,SESAAS
140	Fully Populate Centralized Database for LaRC, Archive	5 days	Wed 7/2/03	Wed 7/9/03	Center,PFM,SESAAS
141	Conduct Center ORR	0 days	Thu 7/10/03	Thu 7/10/03	Center,PFM,SESAAS
142	Switch LaRC's Production To Centralized Systems	0 days	Fri 7/11/03	Fri 7/11/03	NACC,SESAAS,Center
143	**GRC**	**4 days**	**Mon 7/14/03**	**Fri 7/18/03**	
144	Finalize/Review GRC's Transition Plan	1 day	Mon 7/14/03	Mon 7/14/03	Center,PFM,SESAAS
145	Fully Populate Centralized Database for GRC, Archive	3 days	Tue 7/15/03	Thu 7/17/03	Center,PFM,SESAAS
146	Conduct Center ORR	0 days	Fri 7/18/03	Fri 7/18/03	Center,PFM,SESAAS
147	Switch GRC's Production To Centralized Systems	0 days	Fri 7/18/03	Fri 7/18/03	NACC,SESAAS,Center
148	**GSFC**	**4 days**	**Mon 7/21/03**	**Fri 7/25/03**	
149	Finalize/Review GSFC's Transition Plan	1 day	Mon 7/21/03	Mon 7/21/03	Center,PFM,SESAAS
150	Fully Populate Centralized Database for GSFC, Archive	3 days	Tue 7/22/03	Thu 7/24/03	Center,PFM,SESAAS

ID	Task Name	Duration	Start	Finish	Resource Names
151	Conduct Center ORR	0 days	Fri 7/25/03	Fri 7/25/03	Center,PFM,SESAAS
152	Switch GSFC's Production To Centralized Systems	0 days	Fri 7/25/03	Fri 7/25/03	NACC,SESAAS,Center
153	**SSC**	**4 days**	**Mon 7/28/03**	**Fri 8/1/03**	
154	Finalize/Review SSC's Transition Plan	1 day	Mon 7/28/03	Mon 7/28/03	Center,PFM,SESAAS
155	Fully Populate Centralized Database for SSC, Archive	3 days	Tue 7/29/03	Thu 7/31/03	Center,PFM,SESAAS
156	Conduct Center ORR	0 days	Fri 8/1/03	Fri 8/1/03	Center,PFM,SESAAS
157	Switch SSC's Production To Centralized Systems	0 days	Fri 8/1/03	Fri 8/1/03	NACC,SESAAS,Center
158	**KSC**	**4 days**	**Mon 8/4/03**	**Fri 8/8/03**	
159	Finalize/Review KSC's Transition Plan	1 day	Mon 8/4/03	Mon 8/4/03	Center,PFM,SESAAS
160	Fully Populate Centralized Database for KSC, Archive	3 days	Tue 8/5/03	Thu 8/7/03	Center,PFM,SESAAS
161	Conduct Center ORR	0 days	Fri 8/8/03	Fri 8/8/03	Center,PFM,SESAAS
162	Switch KSC's Production To Centralized Systems	0 days	Fri 8/8/03	Fri 8/8/03	NACC,SESAAS,Center
163	**ARC**	**4 days**	**Mon 8/11/03**	**Fri 8/15/03**	
164	Finalize/Review ARC's Transition Plan	1 day	Mon 8/11/03	Mon 8/11/03	Center,PFM,SESAAS
165	Fully Populate Centralized Database for ARC, Archive	3 days	Tue 8/12/03	Thu 8/14/03	Center,PFM,SESAAS
166	Conduct Center ORR	0 days	Fri 8/15/03	Fri 8/15/03	Center,PFM,SESAAS
167	Switch ARC's Production To Centralized Systems	0 days	Fri 8/15/03	Fri 8/15/03	NACC,SESAAS,Center
168	**DFRC**	**4 days**	**Mon 8/18/03**	**Fri 8/22/03**	
169	Finalize/Review DFRC's Transition Plan	1 day	Mon 8/18/03	Mon 8/18/03	Center,PFM,SESAAS
170	Fully Populate Centralized Database for DFRC, Archive	3 days	Tue 8/19/03	Thu 8/21/03	Center,PFM,SESAAS
171	Conduct Center ORR	0 days	Fri 8/22/03	Fri 8/22/03	Center,PFM,SESAAS
172	Switch DFRC's Production To Centralized Systems	0 days	Fri 8/22/03	Fri 8/22/03	NACC,SESAAS,Center
173	**MSFC**	**4 days**	**Mon 8/25/03**	**Fri 8/29/03**	
174	Finalize/Review MSFC's Transition Plan	1 day	Mon 8/25/03	Mon 8/25/03	Center,PFM,SESAAS
175	Fully Populate Centralized Database for MSFC, Archive	3 days	Tue 8/26/03	Thu 8/28/03	Center,PFM,SESAAS
176	Conduct Center ORR	0 days	Fri 8/29/03	Fri 8/29/03	Center,PFM,SESAAS
177	Switch MSFC's Production To Centralized Systems	0 days	Fri 8/29/03	Fri 8/29/03	NACC,SESAAS
178	Conduct Project Completion Review (PCR)	3 days	Fri 8/29/03	Wed 9/3/03	Center,PFM,SESAAS
179	**CM/QA Release SW Activity**	**9 days**	**Wed 9/3/03**	**Mon 9/15/03**	
180	Release Documents	2 days	Wed 9/3/03	Thu 9/4/03	SESAAS
181	Update Metrics Data	4 days	Thu 9/4/03	Tue 9/9/03	SESAAS
182	Perform Rebaseline of Systems	3 days	Wed 9/10/03	Fri 9/12/03	SESAAS
183	Close CCRs	1 day	Mon 9/15/03	Mon 9/15/03	SESAAS

Appendix B - Transition Plan/Agreement Template

Transition Plan/Agreement For The Centralized NASA Property Systems Between The Consolidation Center at Marshall Space Flight Center (MSFC) And (Center Name)

(Date)
Version X.X

TEMPLATE

National Aeronautics and Space Administration

Marshall Space Flight Center
Huntsville, Alabama

Centralized NASA Property Systems

Transition Agreement

Between

National Aeronautics and Space Administration
(Center Name)
Property Office??

And

Marshall Space Flight Center (MSFC)
NASA ADP Consolidation Center

(Date)

PURPOSE

The purpose of this agreement is to define the tasks, roles, and responsibilities of the (*transitioning Center*) Team, and the Consolidation Center (CC) Office of Chief Information Officer (CIO) to transition the Center's supply and property management processes to the NASA centralized property systems at the MSFC CC.

SCOPE

The scope of the plan includes the definition of all tasks required to: (1) identify and establish the network communications and security access; (2) populate the NASA Property Systems with Center-specific production data; (3) identify and establish employee security access parameters; (4) identify and prepare all interfaces; (5) identify and establish Center testing requirements; and (6) identify all deliverables.

NETWORK COMMUNICATIONS/SECURITY

Identify the Center's network communications and security requirements (Center responsibility)

Identify any impact at the CC at MSFC (CC responsibility).

Format:
Define and explain the requirement in an introductory paragraph.
Using a four-column table, identify the task, responsible party, date required, and comments columns.

TASK	RESPONSIBILITY	DATE REQUIRED	COMMENTS

DATABASE/TABLE POPULATION

Identify Center-specific data requirements to populate all systems databases and tables, which are used to drive and manage the processing supply and property information, and security access parameters.

This can be accomplished in a table format similar to the format show below.

DATA REQUIRED	RESPONSIBILITY	DATE REQUIRED	COMMENTS

CENTER-UNIQUE INTERFACES

Identify all Center-unique interfaces.

Format:
Define and explain the requirement in an introductory paragraph.
Using a four-column table, identify the interfaces, responsible party, date required, and comments columns.

INTERFACE	RESPONSIBILITY	DATE REQUIRED	COMMENTS

CENTER TESTING REQUIREMENTS

Define all Center testing requirements, test scripts, how testing will be conducted, how results will be validated, and the criteria for acceptance. Testing requirements should be fairly consistent across the Centers. Testing should conclude with an Operational Readiness Review (ORR).

CENTER TRAINING

Define any Center-specific training requirements, how the training will be conducted, and who is responsible. The initial Center training should be conducted prior to Center Beta testing. An element of readiness review during the ORR should be, "Is the Center staff trained and ready to assume operations after initial deployment?"

DELIVERABLES

Identify all Center-unique interfaces.

Format:
Define and explain any deliverables not defined in the above sections.

Identify the deliverables and the requirement in an introductory paragraph.
Using a four-column table identify each deliverable, responsible party, date required, and comments.

DELIVERABLE	RESPONSIBILITY	DATE REQUIRED	COMMENTS

SCHEDULES

Prepare a schedule inclusive of each task required for a successful transition of the Center to the NASA centralized property systems. The schedule should complement and fully support the tasks and activities as defined in the above sections. Recommend that a MS Project Schedule be developed and included as an attachment.

POINTS OF CONTACT

Identify the points of contact and their respective areas of responsibility for the transitioning Center, the CC at MSFC.

CONCURRENCE PAGE

(Center)
Name: _____
Title: _____

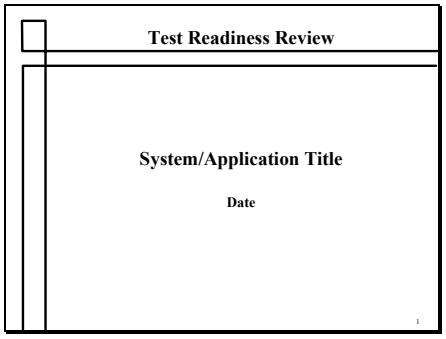
Add others as required by the Center.

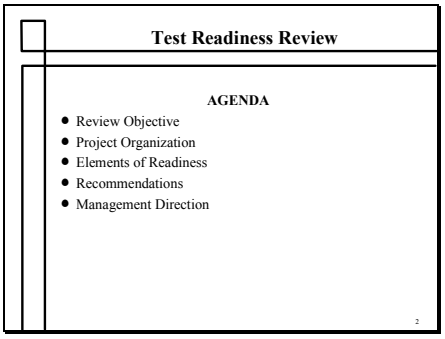
MSFC CC:
Name: Sheila Fogle
Title: CC Project Manager, CIO

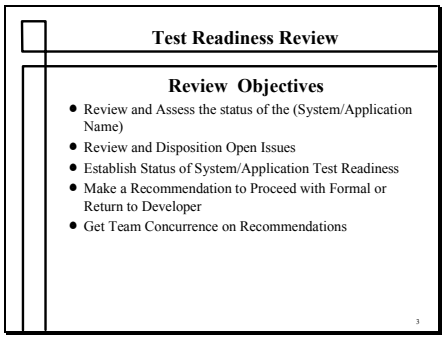
AD40
Name: Nikita Zurkin
Title: NASA Property Systems Program Functional Manager (check?)

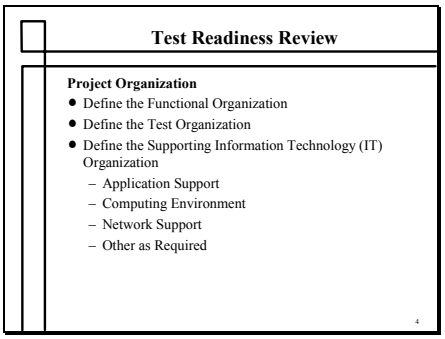
Name: ??_____
Title: ??_____

Appendix C - Test Readiness Review (TRR) Template









Test Readiness Review

Elements of Readiness

- Development Organization Test Results and Validation
- Completeness of Application Functionality
- Completeness of Test Computing Environment Readiness
- Completeness of Local Area Network
- IT Security Plans Approvals
- Support Staff Readiness
- Error Reporting Procedures
- Testers Training Readiness
- Test Database Readiness
- Test Plan and Scripts Readiness
- Other as Required

5

Test Readiness Review

Element Of Readiness– Development Organization Test Results and Validation

- Define Tests Conducted
- Define Test Results

Concluding Evaluation Based on Test Results

6

Test Readiness Review

Element Readiness - Completeness of Application Functionality

- Has the Development Organization Demonstrated that the Application System Performs to all Functionality and Operational Specifications

Concluding Evaluation

7

Test Readiness Review

Element of Readiness - Completeness of Test Computing Environment Readiness

- Has the Test Computing Environment Been Tested and Ready

Concluding Evaluation

8

Test Readiness Review

Element of Readiness - Completeness of Local Area Network

- Are Network Communications Ready

Concluding Evaluation Based on Test Results

9

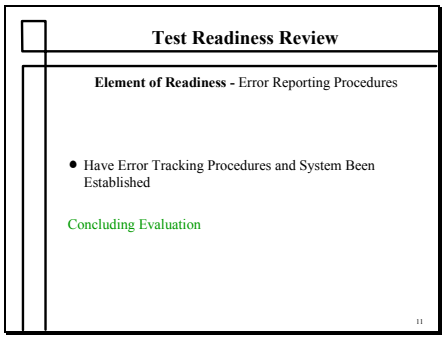
Test Readiness Review

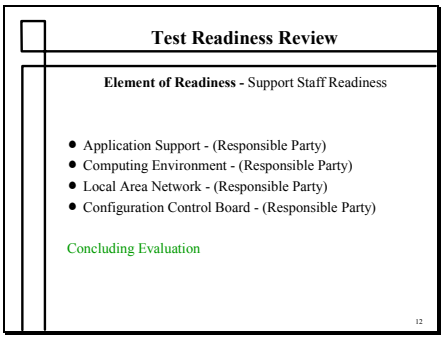
Element of Readiness – IT Security Plans Approvals

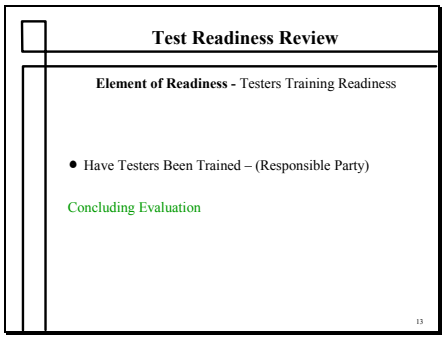
- Have IT Security Plans Been Approved

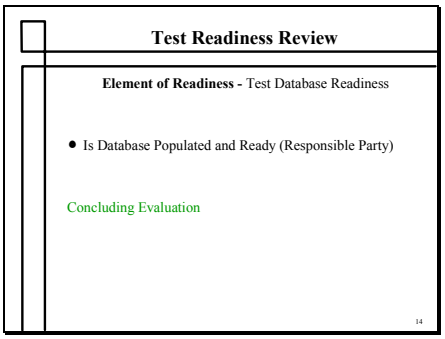
Concluding Evaluation

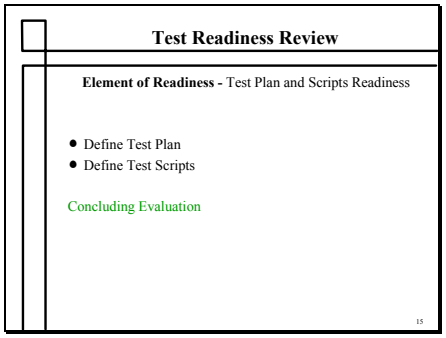
10

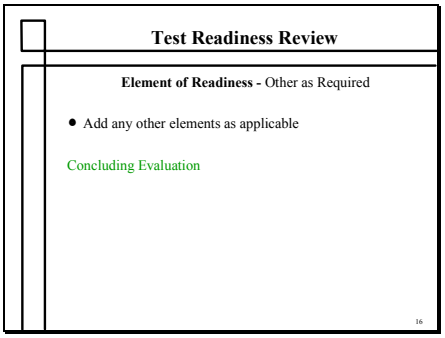

Test Readiness Review
Element of Readiness - Error Reporting Procedures
Have Error Tracking Procedures and System Been Established
Concluding Evaluation
11

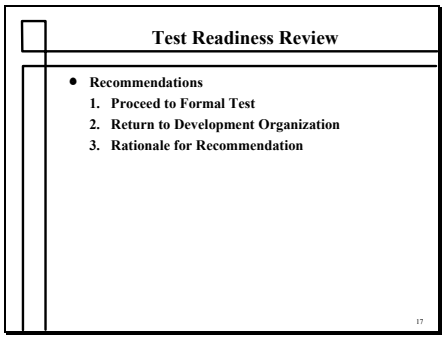

Test Readiness Review
Element of Readiness - Support Staff Readiness
Application Support - (Responsible Party)
Computing Environment - (Responsible Party)
Local Area Network - (Responsible Party)
Configuration Control Board - (Responsible Party)
Concluding Evaluation
12

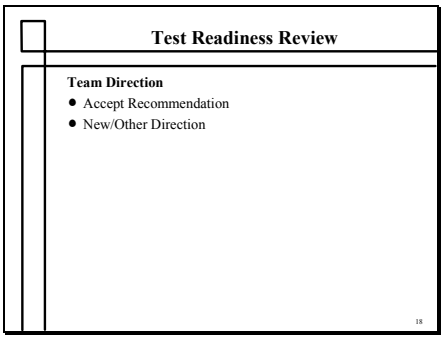

Test Readiness Review
Element of Readiness - Testers Training Readiness
Have Testers Been Trained – (Responsible Party)
Concluding Evaluation
13


Test Readiness Review
Element of Readiness - Test Database Readiness
Is Database Populated and Ready (Responsible Party)
Concluding Evaluation
14

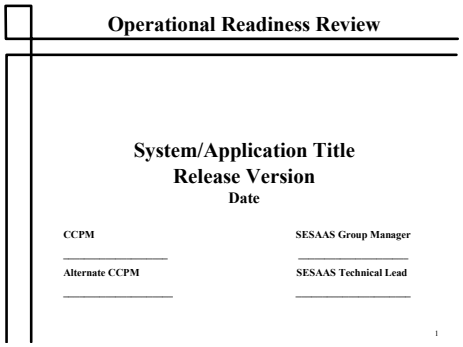

Test Readiness Review
Element of Readiness - Test Plan and Scripts Readiness
Define Test Plan
Define Test Scripts
Concluding Evaluation
15

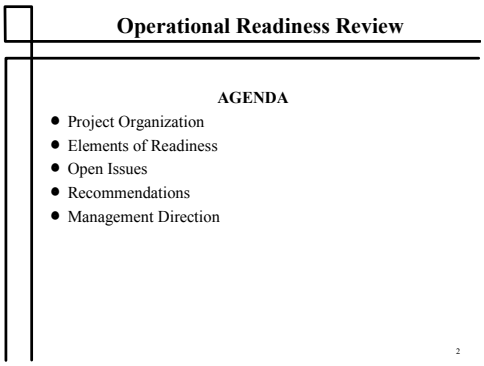

Test Readiness Review
Element of Readiness - Other as Required
Add any other elements as applicable
Concluding Evaluation
16

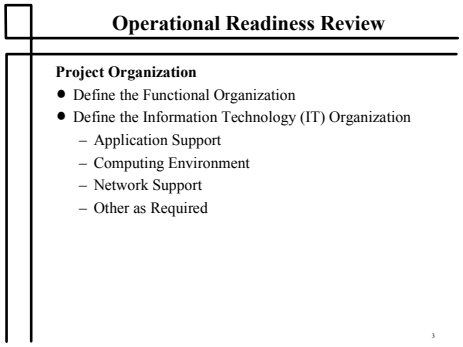

Test Readiness Review
Recommendations
1. Proceed to Formal Test
2. Return to Development Organization
3. Rationale for Recommendation
17

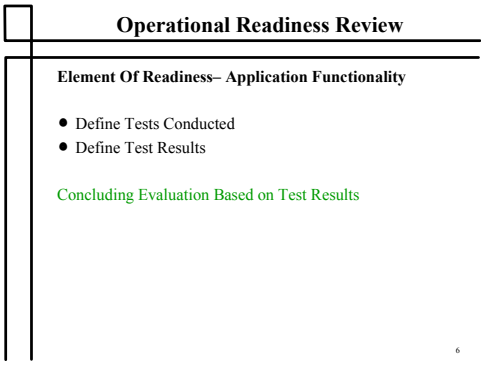

Test Readiness Review
Team Direction
Accept Recommendation
New/Other Direction
18

Appendix D - Operational Readiness Review (ORR) Template









Operational Readiness Review

Element Readiness - Computing Environment

Computing Environment –
- Identify Changes
- Define Tests Conducted
- Define Test Results

Concluding Evaluation Based on Test Results

5

Operational Readiness Review

Element of Readiness - MSFC Local Area Network

- Define Tests Conducted
- Define Test Results

Concluding Evaluation Based on Test Results

6

Operational Readiness Review

Element of Readiness - IT Security Plan

- Define Tests Conducted
- Define Test Results

Concluding Evaluation Based on Test Results

7

Operational Readiness Review

Element of Readiness - Support Staff

- Application Support - (Responsible Party)
- Help Desk Support - (Responsible Party)
- Computing Environment - (Responsible Party)
- Local Area Network - (Responsible Party)
- Configuration Control Board - (Responsible Party)

Concluding Evaluation

8

Operational Readiness Review

Element of Readiness - User Training

- Training Plan – (Responsible Party)
- Training Conducted – (Responsible Party)

Concluding Evaluation

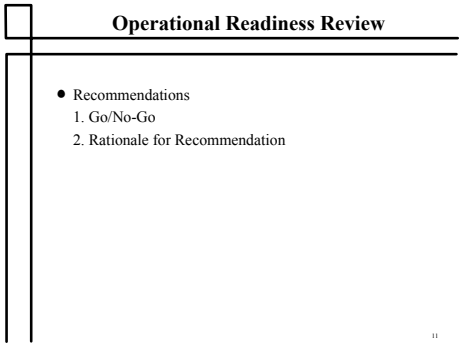
9

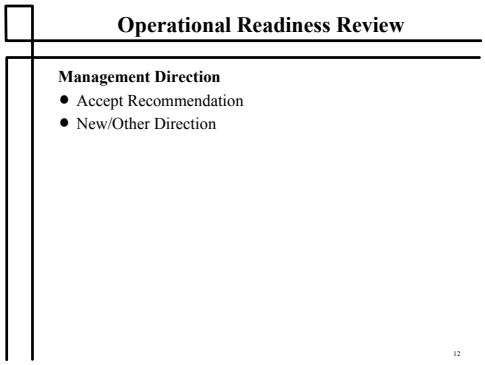
Operational Readiness Review

Open Issues

- Identify Open Issues
- Review and Disposition Open Issues

10


Operational Readiness Review
Recommendations
1. Go/No-Go
2. Rationale for Recommendation
11


Operational Readiness Review
Management Direction
Accept Recommendation
New/Other Direction
12

Appendix E – Abbreviations and Acronyms

ADP	Automated Data Processing
ARC	Ames Research Center
BPR	Business Process Reengineering
CC	Consolidation Center
CCB	Configuration Control Board
CCR	Change Control Request (NASA Form 1620)
CDR	Critical Design Review
CFM	Center Functional Manager
CIO	Chief Information Officer
CM	Configuration Management
CSTP	Center Specific Transition Plan
DBA	Data Base Administrator
DBMS	DataBase Management System
DFRC	Dryden Flight Research Center
DR	Discrepancy Reports
GRC	Glenn Research Center
GSA	General Services Administration
GSFC	Goddard Space Flight Center
HQ	Headquarters
IFMP	Integrated Financial Management Program
IP	Implementation Plan
ISD	Information Services Department
IT	Information Technology
JSC	Johnson Space Center
KSC	Kennedy Space Center
LAN	Local Area Network
LaRC	Langley Research Center
LPAR	Logical Partition
MSFC	Marshall Space Flight Center
NACC	NASA ADP Consolidation Center
NASA	National Aeronautics and Space Administration
NEMS	NASA Equipment Management System
NISC	NASA Information Support Center
NPDMS	NASA Property Disposal Management System
NPG	NASA Procedures and Guidelines
NSMS	NASA Supply Management System
NOSC	NASA Online Supply Catalog
ODIN	Outsourcing Desktop Initiative for NASA
ORR	Operational Readiness Review
PFM	Program Functional Manager
PrISMS	Program Information Systems Mission Services
QA	Quality Assurance

SESAAS	Sustaining Engineering Support for Agencywide Administrative Systems
SSC	Stennis Space Center
TRR	Test Readiness Review
UOG	User and Operations Guide
VDD	Version Description Document
WAN	Wide Area Network