CONTRACT NNL05AA35C
(Contract)

The following information has been determined to be exempt from disclosure and has been deleted from the contract and contract modifications:

- Section B.6 – Schedule of Rates (Prime Only): Non-Labor Related Indirect Rates, page 3.
- Exhibit F: Safety and Health Plan, 25 pages.

If NASA should release the financial information, which is considered to be company "confidential." the result could be that contractors would refuse to negotiate such agreements on the basis that the firm's pricing structure and subelements of cost would be made available to its competitors. Furthermore, disclosure would discourage other companies from participating in the negotiation of similar agreements.

The Safety and Health Plan is replete with proprietary information that would give competitors an insight to Federal Sources, Inc. technical and business approach. Because there are no reasonably segregable portions that are subject to release, the Safety and Health Plan is being withheld in its entirety.

The deleted material is exempt from disclosure under 14 C.F.R. 1206.300(b)(4) which covers trade secrets and commercial or financial information obtained from a person and privileged and confidential information. It has been held that commercial or financial material is "confidential" for purposes of this exemption if its disclosure would be likely to have either of the following effects: (1) impair the Government's ability to obtain necessary information in the future; or (2) cause substantial harm to the competitive position of the person from whom the information was obtained, National Parks and Conservation v. Morton, 498 F2d 765 (D.C. Cir. 1974).

Certain portions of Exhibit E – IT System Security Plan for NASA Technology Transfer System have also been determined to be exempt from disclosure and have been deleted under FOIA Exemption 2, which exempts from mandatory disclosure records that are "related solely to the internal personnel rules and practices of an agency.

Computer Security Plans that all federal agencies are required by law to prepare may be withheld under FOIA Exemption 2 to prevent unauthorized access to information which could result in altercation, loss, damage or destruction of data contained in a computer system.

OMB APPROVAL #: 2700-0(

AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	PAGE OF	PAGE(S)
	C9	1	53

2. CONTRACT NO. (Proc. Inst. Ident.) NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQUEST/PROJECT NO.
NNL05AA35C	3/7/05	4200104465

5. ISSUED BY: CODE

National Aeronautics and Space Administration
Langley Research Center
Hampton, VA 23681-2199

6. ADMINISTERED BY (If other than Item 5) CODE

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP code)

Analytical Services and Materials, Inc.
107 Research Dr
Hampton, VA 23666

8. DELIVERY
☐ FOB ORIGIN ☒ OTHER (See below)

9. DISCOUNT FOR PROMPT PAYMENT

CODE	FACILITY CODE	10. SUBMIT INVOICES (4 copies unless other-wise specified) TO THE ADDRESS SHOWN IN:	ITEM
			12

11. SHIP TO/MARK FOR CODE

12. PAYMENT WILL BE MADE BY: CODE

Financial Management Division, M/S 175
NASA, Langley Research Center
Hampton, VA 23681-2199

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION

☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

14. ACCOUNTING AND APPROPRIATION DATA

PR: 4200104465;
Amount: $573,563. (complete)

15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QTY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
0	FFP - Phase-In	1	Job	$26,935	$26,935
1	Cost plus fixed fee - NTTS Operations and Support	1	Job	$3,139,357 *	$3,139,357 *
2	Sustaining System Management and Architecture/Enabling and Accommodating Evolving Functionality	1	Job	$5,000,000 * (NTE)	$5,000,000 * (NTE)
	*Includes Base Period + options 1 and 2				
				15G. TOTAL AMOUNT OF CONTRACT ▶	$8,166,292

16. TABLE OF CONTENTS

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		PART I – THE SCHEDULE				PART II – CONTRACT CLAUSES	
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	B	SUPPLIES OR SERVICES AND PRICES/COSTS	1-3			PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS	
	C	DESCRIPTIONS/SPECS./WORK STATEMENTS	4-23		J	LIST OF ATTACHMENTS	53
	D	PACKAGING AND MARKING	24			PART IV – REPRESENTATIONS AND INSTRUCTIONS	
	E	INSPECTION AND ACCEPTANCE	25		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	N/A
	F	DELIVERIES OR PERFORMANCE	26				
	G	CONTRACT ADMINISTRATION DATA	27-33		L	INSTRS., CONDS., AND NOTICES TO OFFERORS	N/A
	H	SPECIAL CONTRACT REQUIREMENTS	34-45		M	EVALUATION FACTORS FOR AWARD	N/A

CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17. ☒ CONTRACTOR'S NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return __2__ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents (s) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. *(Attachments are listed herein.)*

18. ☐ AWARD *(Contractor is not required to sign this document.)* Your offer o Solicitation Number including the additions or changes made by you which additions or changes are set forth i full above, is hereby accepted as to the items listed above and on any continuation sheets This award consummates the contract which consists of the following documents: (a) th Government's solicitation and your offer, and (b) this award/contract. No further contractua document is necessary.

19A. NAME AND TITLE OF SIGNER *(Type or print)*

JALAIAH LUNAM, President

20A. NAME OF CONTRACTING OFFICER

DAVID H. JONES

19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
BY Jalaiah Lunam (Signature of person authorized to sign)	3-10-2005	BY David H. Jones (Signature of Contracting Officer)	3-10-05

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE

STANDARD FORM 26 (REV. 4-85)
Prescribed By GSAFAR (48CFR) 53.214(a)

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED (LaRC 52.211-90) (MAY 1999)

The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to perform the requirements delineated in the Description/Specifications/Statement of Work in Section C.

Contract Line Item Number (CLIN)	SOW Section	TYPE
0	Phase-In	FFP
1	4.0-4.4; 5.0-5.12; 7.0-7.3 (Thrust 1)	CPFF
2	6.0-6.4 (Thrust 2 & 3)	IDIQ, CPFF

(end of clause)

B.2 FIRM FIXED PRICE (CLIN 0)

The total firm fixed price for Phase-In of this contract is $26,935.

(End of Provision)

B.3 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of CLIN 1, exclusive of phase-in, of this contract is $1,081,549 exclusive of the fixed fee of $81,116. The total estimated cost and fixed fee of CLIN 1 is $1,162,665.

(b) The minimum quantity for CLIN 2 is $0.

(c) The maximum quantity for CLIN 2 is 3,000,000.

(End of clause)

B.4 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract for CLIN 1 is $ 508,491 . This allotment is for NASA Technology Transfer Systems and covers the following estimated period of performance: 4/1/05-4/1/06.

(b) An additional amount of $ 38,137 is obligated under this contract under CLIN 1 for payment of fee.

(c) An additional amount of $ 26,935 is obligated under this contract to fully fund CLIN 0 (Phase-In).

(End of clause)

B.5 TASK ORDER FUNDING

Task Orders issued under this contract for CLIN 2 shall be funded individually as specified in each Task Order.

(End of Provision)

B.6 SCHEDULE OF RATES (Prime Only)

The Government will issue cost plus fixed fee IDIQ task orders under this contract using the prime contractor fully burdened labor rates (excluding fee) set forth below. Subcontracting costs may be included on individual task orders if needed in direct support of the task and will be evaluated with each individual task order.

Schedule of Rates (CLIN 2) Burdened Labor Rates – Straight Time						
Labor Category	Unit	First Year	Second Year	Third Year	Fourth Year	Fifth Year
Help Desk Specialis Level 1	Hour	$25.19	$26.02	$26.91	$27.82	$28.76
Help Desk Specialis Level 2	Hour	$29.31	$30.30	$31.33	$32.40	$33.49
Technical Writer	Hour	$39.27	$40.58	$41.95	$43.39	$44.87
Programmer Analys Level 1	Hour	$33.89	$35.02	$36.21	37.45$	$38.71
Help Desk Operatio	Hour	$33.18	$34.29	$35.45	$36.65	$37.90

Level 2						
Systems Project Manager-Level 2	Hour	$47.31	$48.89	$50.55	$52.27	$54.05
Systems Engineer-L 1	Hour	$39.77	$41.10	$42.49	$43.95	$45.44
Senior Software Eng – Level 2	Hour	$47.31	$48.89	$50.55	$52.27	$54.05
Senior Software Engineer-Level 3	Hour	$57.90	$59.83	$61.85	$63.95	$66.14
Director of Product Development	Hour	$79.83	$82.48	$85.28	$88.19	$91.19
Systems & Prog Mg Level 3	Hour	$67.56	$69.79	$72.17	$74.61	$77.16

Non-Labor Related Indirect Rates

Indirect Rate Category	Unit	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Application Base
Material Handling	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
Subcontract Handling	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Total of subcontract costs
G & A	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Total cost – subcontract cost

B.7 PROFIT AND FEE ON TASK ORDERS

Individual cost plus fixed fee Task Orders will be negotiated as a result of proposals submitted for each Task Order. The fixed fee rate accepted or negotiated by the Contracting Officer for the initial requirement under any specific Task Order will be the maximum rate applied to all change or modification actions involving work not previously specified in the Task Order.

[END OF SECTION]

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

Appendix

1.0 Introduction
2.0 Scope
2.1 Thrust 1 - Operation and Support of NTTS
2.2 Thrust 2 - Implement Sustaining System Management and Architecture
2.3 Thrust 3 - Enabling/Accommodate Evolving Functionality

3.0 Reserved

4.0 General Requirements
4.1 Configuration Management
4.2 Critical Contractor Interfaces
4.3 IT Security and Recovery Plan
4.4 Internet Connectivity
5.0 Operations and Support of NTTS (Thrust 1)
5.1 Production and Test Environments
5.2 Information Technology Security Administration
5.3 System Administration
5.4 Hardware Maintenance
5.5 System Software Maintenance
5.6 Application Management
5.7 Database Administration
5.8 Customer Support
5.9 Application Specialist
5.10 Processing Procedures
5.11 External Interfaces
5.12 Sustaining System Management and Architecture Work Plan
6.0 Systems and Applications Development Services (Thrust 2, 3)
6.1 Work Requirements
6.2 Task Orders
6.3 Consultation and Training
6.4 Implementation
7.0 Contract and Work Management
7.1 Project Management
7.2 Operations Management
7.3 Performance Measurements

1.0 Introduction

In 1993 NASA developed the NASA Technology Transfer Systems (NTTS) as the primary information technology (IT) "backbone" of its organizational infrastructure to address the automation of the Technology Transfer process. NTTS supports the entire technology transfer process and is the Agency's one system to house information on all of its technological assets. NTTS is a closely integrated set of information systems. The four major components comprising NTTS are as follows and are shown in Figure 1, NASA Technology Transfer System (NTTS Project Plan, Exhibit G).

- **eNTRe**—the electronic new technology reporting system provides a tool for electronically capturing and submitting new technology reports.
- **TechTracS (TTS)**—this center-based component of NTTS provides the day-to-day core backbone of the NTTS while providing each center a major productivity tool for accomplishing its technology transfer activities;
- **KIMS**—the Knowledge Integration and Management System provides NASA enterprise, center, and program managers up to date information on the status of their technology transfer activities.
- **TechFinder**—this is the public technology transfer gateway; providing access to NASA's technology assets.

Figure 1, NASA Technology Transfer System (NTTS Project Plan, Exhibit G) also illustrates that the NTTS is not a stand-alone, isolated system, but rather there is integration of data from other existing NASA data repositories where such data is directly applicable to and supportive of NASA's overall technology transfer mission. Such an approach leverages other key NASA information assets while facilitating a single interface point for the external commercial technology community; as well as a key asset for NASA internal scientists, researchers, engineers and technologists.

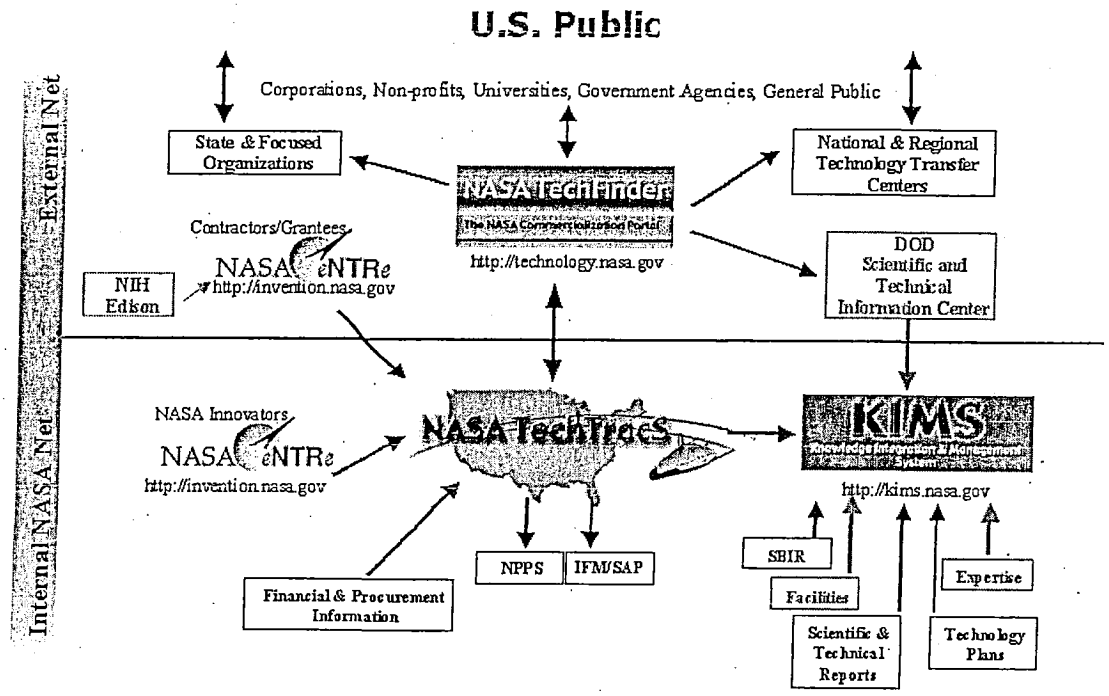

Figure 1- NASA Technology Transfer System

Additionally, NASA has established the Enterprise Architecture and standard Agency IT security policies. The Enterprise Architecture is a tool that links the business mission and strategy of an organization to its IT strategy and provides guidance on IT capital investment and planning processes to help an organization to optimize the return on its IT investments. Revised IT security policies have established standard IT security plans for identification and mitigation of IT security risks and the creation of disaster recovery planning. Notwithstanding the current realignment program activities, there remains "core activities/functions" that are ongoing, which NTTS must support on a day-to-day basis.

In order to accommodate the demands of this dynamic and fluid environment and to incorporate Agency IT policies, NTTS is managed under a project plan agreed upon by NASA Headquarters and NASA Langley. The NTTS Project Plan (Exhibit G) is the agreement between NASA Headquarters and NASA Langley for the direction and activities for fiscal years 2004-08. The Plan provides the guiding framework that is employed to manage the Project and the associated identified support services. This Plan gives the vision for the future of the NTTS, although the SOW takes precedence over the NTTS Project Plan when in conflict for the performance of the contract. Certain parts of the NTTS Project Plan will be used as part of the SOW for work requirements. The NTTS Project Plan pursues activities along three thrusts:

1. Operations and Support of NTTS

2. Implement Sustaining System Management and Architecture
3. Enable/Accommodate Evolving Functionality

2.0 Scope

A broad scope of information technology (IT) services including new and emerging technologies and related mission specific services are required over the life of the contract. The scope of support to be provided shall cover all requirements for IT services related to NTTS in support of NASA's Technology Transfer and Intellectual Asset Management activities including computers, ancillary equipment, software, firmware, services, and related resources. As provided in Section 1.0, Introduction, contract activities shall pursue approaches that support NASA's Enterprise Architecture (EA). Support for the EA requires a thorough knowledge of and experience with implementing IT solutions in support of the identified technology transfer processes.

Services are divided into the following categories:

2.1 Thrust 1 - Operations and Support of NTTS

Operate and support core backbone NTTS network that will be used to support necessary efforts to (1) document and license technologies and make them available to the private sector as legislatively mandated, (2) prudently manage NASA's intellectual property, and (3) use the web to provide technology offerings available for licensing and solicit partnerships.

2.2 Thrust 2 - Implement Sustaining System Management and Architecture

The current NTTS configuration and architecture is one that has resulted from an evolutionary path reflective of the growth of NASA's Technology Transfer Program. To support the program's rapid evolution, NTTS development employed a prototyping and refinement development cycle. Activities in this thrust will ensure that NTTS, as a system, is configured to sustain operations, manage risks, and align the NTTS architecture, where applicable, with the defined NASA Enterprise Architecture and IT security policies (Exhibit C).

2.3 Thrust 3 - Enabling/Accommodate Evolving Functionality

Historically the functionality of the program has focused on spin-out of technologies. Given the re-vectoring and realignment of NASA's technology transfer activities, existing functionality will need to be revised and new areas identified to support the technology transfer activities, such as spin-in and technology infusion.

Therefore, the NTTS capabilities will need to accommodate improvements in existing functionality, as well as new functionalities. Additionally, the emphasis on E-gov activities (http://egov.gsa.gov/) will be addressed in this area to ensure NTTS continues to be compatible for activities identified at the Federal level.

Specific work requirements for Thrust 2 and 3 activities will be furnished by the Contract Officer's Technical Representative (COTR) through the issuance of Task Orders (TO).

Software development, operations, and maintenance of NTTS have several levels of risks. Control ranges from minimal to critical (as it relates to impact to the Government). This is specified in the NTTS Project Plan (Exhibit G) and the NTTS IT Security and Recovery Plan (Exhibit E).

3.0 (Reserved)

4.0 General Requirements

All work shall meet the requirements specified herein and shall be accomplished in conformance with the guidelines set forth in the NTTS Project Plan.

4.1 Configuration Management

The Contractor shall ensure that the configurations of all systems are reviewed and approved in accordance with the NTTS configuration management process as defined in the NTTS Project Plan (Exhibit G, Section 5.1.2, Sustaining Architecture and Evolving Functionality).

The Contractor shall maintain an electronic configuration management system (CMS) to track the inventory of equipment and software for all systems supported. Information maintained within the CMS shall include, but is not limited to, hardware configurations, versions of installed software and associated documentation, maintenance status, software license status, and status of planned and performed upgrades.

NTTS is a component of NASA's payment process for space act awards and license royalties. In all activities the Contractor shall ensure NTTS processes are implemented to prevent waste, fraud and abuse. See module documentation, system processes and interface definition agreements located at http://ncis.nasa.gov for information on the NTTS processing for awards and royalties.

4.2 Critical Contractor Interfaces

The Contractor shall interface with the COTR for coordinating tasks with the Government as defined in Article G.3, "TECHNICAL DIRECTION (NFS 18-52.242-70)", of the contract schedule. Help desk support, requirements definition, and new version implementations will require interfaces with the NTTS customer base (Exhibit G, Section 3.0, Customer Definition and Advocacy) and other service providers at NASA. The Contractor will interface with the Contracting Officer (CO) and/or COTR to address and resolve contractual issues. See Exhibit G, Sections 3.0, Customer Definition, and 5.2, Organizational Structure for expected contractor interfaces. The NTTS Project Plan (Exhibit G) identifies the Contractor as the Product Technical Support Contractor.

4.3 IT Security Plans and Training

The Contractor shall submit to the COTR the Contractor's plan for implementation of IT Security (DRD 5) and the Contractor's IT Security and Recovery Plan (DRD 5) for operations located at the Contractor's site. The contractor shall submit a report to the COTR on IT security training as defined in DRD 6.

4.4 Internet Connectivity

The Contractor shall provide a high-speed data link (minimum 10 Mbps connection capability) to connect the Contractor's offsite facility to the Government's Local Area Network (LAN). This high-speed data line must be ethernet compatible.

5.0 Operations and Support Services

Operations and support services are defined at a basic level as applicable to sustained operations of the NTTS production and test systems. The contractor shall perform the functions stated in this section for systems that make up the NTTS, support activities identified in Thrust 1 of the NTTS Project Plan (Exhibit G) and defined in the NTTS Processing Procedures found on http://ncis.nasa.gov in documentation under type "System".

Services shall be provided for a prime shift of 12 hours per day beginning at 8:00 AM EST and ending at 8:00 PM EST, Monday through Friday, except for Government holidays. Support outside of the defined prime shift shall be agreed to by the COTR and Contractor with a specific defined task order.

Software is classified as system software, database software, or application software. System software consists of operating systems; the native file system; distributed file systems; system and user command suites that usually accompany the release of an operating system; and general-purpose software such as browsers, e-mail clients, and office programs. Database software includes engines as

well as associated database tools. Application software is that software which provides specific capabilities in support of NASA's technology transfer activities. Hardware consists of the central processing units, memory, peripheral devices (such as output devices, disks, and tapes), adapters, and network equipment.

5.1 Production, Test and Development Environments

The NTTS production environment consists of all hardware and software required to support the Project's requirements stated in Exhibit G, Section 7.0, Project Technical Summary. The production environment is provided by NASA.

The NTTS Test environment consists of all hardware and software required to support the Project's requirements stated in Exhibit G, Section 7.7, NTTS Test Environment. The Contractor shall provide and maintain the test environment. As the production environment changes, the contractor shall ensure the test environment supports the production configuration.

The NTTS Development environment consists of all hardware and software required to support the Project's development requirements to support Thrust 1, 2 and 3. The Contractor shall provide and maintain the development environment. As the production and test environments change, the contractor shall ensure the development environment supports the configurations necessary to provide continued support for current configuration and new development.

5.2 Information Technology Security Administration

The contractor shall identify a System Security Administrator as the focal point for the security of both the NTTS production and test systems and Contractor systems used to support this contract. The System Security Administrator shall implement and maintain the NTTS IT Security and Recovery Plan (Exhibit E) as directed by the COTR. All contractor employees shall be trained in IT security as defined in NPR 2810.1, Security of Information Technology (Exhibit C).

The Contractor shall ensure the following:

a) All users complete an Account Request Document as defined in the NTTS User Account Process (Exhibit H) for all user accounts and that the information gathered is handled in accordance with the Privacy Act.

b) As defined in the NTTS IT Security and Recovery Plan (Exhibit E), promptly disabling access to a user's account if the user is identified as having left the Center, changed assignments, changed contracts, completed work on a grant or other agreement, or is no longer requiring system access.

c) Granting accounts only to individuals who have supplied the information identified in the NTTS User Account Process (Exhibit H).

d) Performing annual self-inspections of all contractor systems supporting NTTS and reporting the findings to the COTR as defined in the Contractor IT Security and Recovery Plan (DRD 6).

e) Reporting IT security incidents as defined in both the NTTS and Contractor's IT Security and Recovery Plans (Exhibit E & DRD 5).

f) In response to an IT security incident, taking necessary actions to prevent further damage to NTTS production and test systems, and contractor systems. These actions shall be documented as defined both the NTTS and Contractor's IT Security and Recovery Plans (Exhibit E & DRD 5).

g) Identifying alternate personnel who will be responsible for systems if an IT security incident requiring immediate attention occurs when the System Administrator is absent. The names and contact information for these personnel will be provided to the COTR.

h) Ensuring that security controls are in place and functioning.

5.3 System Administration

The system administration function pertains to providing a variety of services involving hardware and systems software. Systems Administration functions shall be integrated with functions associated with database software (database administration) and applications support. System Administration required under this contract includes:

5.3.1 NTTS Production Systems

System administration of the NTTS Production Systems is performed by the NASA ODIN Contractor or other identified contractor; however, the Contractor shall provide the following services:

a) Identify required hardware and software needed for support of the operational version of NTTS.

b) Consult and troubleshoot with ODIN or designated contractor on operation issues for return to service activities.

c) Identify system operational issues to ODIN or designated contractor for resolution.

d) Notify COTR of operational issues and planned resolution within 2 hours of identification.

5.3.2 NTTS Test, Development and Contractor Systems

The Contractor shall provide the following services:

a) Interface with equipment vendors or service providers for the maintenance of equipment and software. Monitor the currency of maintenance contracts and software licenses.

b) Interface with network service providers for access to public networks and to resolve problems associated with network access.

c) Diagnose anomalies in the operation of equipment or system software. Provide timely fixes or work-arounds where possible. When necessary, interface with other IT service providers to resolve problems. Initiate corrective action. Follow up to ensure problem resolution. Corrective actions to problems during testing periods will be within 2 hours of identification.

d) Develop a disaster/recovery plan as part of Contractor IT Security and Recovery Plan (DRD 5) in accordance with NPR 2810.1, Security of Information Technology (Exhibit C). Work with other responsible IT personnel (e.g., database administrators and other application or data managers) in developing the plan.

e) Backup and restore files in accordance with the Contractor IT Security and Recovery Plan (DRD 5).

f) Monitor the operation of the system and adjust the configuration and system parameters as necessary to maximize operational efficiency.

g) Create and modify scripts that increase functionality or enhance system operation or performance.

5.4 Hardware Maintenance

Hardware Maintenance, as defined in this section, includes the repair and replacement of hardware components necessary to ensure operability of NTTS production and test systems and Contractor systems used in support of this Contract. Services that shall be provided in satisfying the Hardware Maintenance requirements include:

5.4.1 NTTS Production Systems

Hardware maintenance of the NTTS Production Systems is performed by the NASA ODIN Contractor or other identified contractor; however, the contractor shall provide the following services to this activity as defined below:

a) Identify and diagnose problem or failure.

b) Verify that repair or replacement performs to support the NTTS applications.

c) Reload any files and/or data (if accessible) that are contained on a replaced or failing component before returning the system to operational status.

5.4.2 NTTS Test, Development and Contractor Systems

a) Diagnose problem or failure.

b) Repair or replace failing components. Replacement parts shall meet or exceed Original Equipment Manufacturer's standards.

c) Verify that repair or replacement performs to manufacturer's standards.

d) Verify that the performance of the system following the repair or replacement of failing components meets or exceeds the performance of the system prior to system failure.

e) Reload any files and/or data (if accessible) that are contained on a replaced or failing component before returning the system to operational status.

f) Cleanse (to ensure that data is fully erased and not retrievable or accessible by any means) any replaced data storage equipment that contains unclassified data prior to disposal or returning to the supplier, and maintain a documented log to indicate that this action was completed.

5.5 System Software Maintenance

System Software Maintenance, as defined in this section, includes the services required to ensure continuing operation of system software on both the NTTS production and test systems and Contractor systems in support of this Contract. Services that shall be provided in satisfying the System Software Maintenance requirements include:

5.5.1 NTTS Production Systems

System Software Maintenance of the NTTS production systems is performed by the NASA ODIN Contractor or other identified contractor; however, the contractor shall provide the following services:

a) Analyze software failure or performance degradation.

b) Verify system operation following software upgrades.

c) Coordinate with designated contractor the full system, file, and data backup prior to software upgrade.

d) Coordinate with designated contractor the preservation/recovery of all files and data during software upgrade.

5.5.2 NTTS Test, Development and Contractor Systems

The Contractor shall perform the following services:

a) Analyze software failure or performance degradation.

b) Obtain software updates and upgrades from the vendor or public domain sources.

c) Verify system operation following software upgrades.

d) Preserve and/or restore the preservation/recovery of all files and data during software upgrade.

e) Perform the full system, file, and data backup prior to software upgrade.

5.6 Application Management

5.6.1 Application Software

The application software used in support of the current operational configuration of NTTS production and test systems is categorized as follows:

5.6.1.1 Commercial off the shelf (COTS) software.

COTS is software used to support the functions of NTTS and shall be of a version that is considered "market ready". Market Ready signifies that the software can be purchased by the Government and is supported through the Vendor's customer and technical support systems. The current list of COTS used within NTTS is as follows.

Microsoft Visio

Microsoft IIS

Committed Software SanityCheck

Norton AntiVirus

QuickTime

StuffIt

WinZip

ServersAlive

Macromedia Flash

Macromedia Dreamweaver

Committed Software Datacheck

Adobe Photoshop

Internet Explorer

Rationale Rose Suite

4D database management systems (4D OEM builder, 4D Tools, 4D Backup, 4D Compiler, 4D Server, 4D Client, 4D Insider).

AreaList

MS SQL Server (7 and 2000)

Cold Fusion (4.5 and MX)

ARCIMS

Apache

Netscape

SSL

Webdav (WebDrive)

Cisco VPN

Eudora Worldmail server

MS Windows NT / 2000 (Professional and Server)

Mac OS X

Timbuktu

MS Office

MS Project

Adobe Acrobat

5.6.1.2 Software developed by or for NASA and used in production mode:

a. NASA eNTRe

b. NASA TechTracS including synchronization and wan subsystems

c. KIMS

d. TechFinder

e. NCIS Support

f. Datapump

g. External Interfaces to other NASA systems and external systems (See Project Plan Section 14.3, External Interfaces)

5.6.2 Application Management Requirements

The Contractor shall provide application management service requirements of the NTTS production and test systems to include the following activities.

a) Optimize the execution of the application. Monitor the application for anomalies and respond to customer trouble reports. Analyze problems, interface with responsible IT personnel if necessary to resolve problems. Implement corrective action.

b) Plan for and recommend evolution of the application. For example, advise the COTR on applicability of upgrades and recommend possible software solutions to identified user requirements.

c) For COTS, actively monitor availability of patches and upgrades from vendors. Evaluate upgrades, recommend schedule for upgrade, and inform customers of impact of upgrade.

d) Interface with software vendors to obtain patches and upgrades. Coordinate with COTR and procure software updates and upgrades from the vendor. Install patches as required to ensure that application remains current, secure, and reliable. Install upgrades according to schedule approved by the COTR. Interface with responsible IT personnel as necessary to ensure smooth upgrade. Perform upgrades with minimal impact to users and notify users of interruptions in application.

e) Maintain software developed by or for NASA. In general, the contractor shall follow the maintenance process defined in Section 5.1.2, Sustaining Architecture and Evolving Functionality of the NTTS Project Plan (Exhibit G).

f) Advise customers on effective use of the software.

5.6.3 Documentation

The Contractor shall:

5.6.3.1 For COTS, maintain and make available an electronic library of application documentation.

5.6.3.2 For software developed by or for NASA the Contractor shall perform documentation of NTTS as noted in DRD 14.

5.6.3.3 The contractor shall establish, implement, and maintain an electronic, web-based documentation control system (DCS) as

noted in DRD 11. The DCS shall support a visual look that supports the NTTS logo.

5.7 Database Administration

Database Administration (DBA) as defined in this section shall be provided for all database management systems (DBMS) supporting the NTTS production and test systems. This includes DBMS software and associated database tools. The Contractor shall provide database administration requirements to include the following activities:

5.7.1 Installation of Database Software and Tools

a) Install and maintain new and upgraded DBMS software and associated tools on both production and test systems. Identify impacts of new and upgraded software by testing, documenting, and communicating impacts to COTR before implementation.

b) Ensure operability of the DBMS environment. Achieve a common or standard configuration for the DBMS environment to enable application developers to efficiently produce predictable results.

c) Ensure compatibility between the DBMS and the operating system. Coordinate with responsible IT personnel to ensure that the system adequately supports database applications.

5.7.2 Monitoring and Configuring Database Engine and Tools

a) Monitor activity of the database engine to determine efficiency of the database engine and applications. Manage disk space allocations, perform consistency checking, and monitor logical/recovery log.

b) Based on the configuration of the file server and the existing and projected database workload, configure the database engine to optimize performance of database applications while minimizing effects on the rest of the file-server workload.

c) Analyze the database workload and storage needs and plan for growth for databases and applications. Make determinations of DBMS software to support these needs, and communicate hardware/system software requirements to system administrator. Implement recommendations upon COTR approval.

d) Monitor use of the licenses for the database engines and related tools. Interface with vendors to develop software maintenance strategies and maintain current licenses.

e) Provide solutions that allow connections to the database engines from other platforms. These solutions will include the use of ODBC (open database connectivity), database client tools, and Extensible Markup Language (XML). Provide documentation and user training in the installation and configuration of these connections as needed.

5.7.3 Archiving and Restoring

a) Archive and restore the database instance and logical logs, and provide input into NTTS system disaster/recovery plan to ensure restoration of database. Restore data as required.

b) Perform periodic tests (at least every 6 months) to ensure that hardware, software, and processes will function as required to support archiving and restoring of data and to verify the NTTS IT Security and Recovery Plan (Exhibit E). Coordinate tests with and report test results to COTR.

5.7.4 Documentation

The Contractor shall maintain documentation of the database as defined in Documentation (DRD 11).

5.7.5 IT Services Log

Within 30 days from the contract implementation date, the Contractor shall implement and maintain an IT Services Log. The IT Services Log shall contain, at a minimum, a record of service and system interruptions, scheduled maintenance and upgrades, hardware replacements, upgrades, disposal, and security breaches and threats. The log shall have a user web interface with search capabilities supporting searches by system, log entry date ranges, and description contains.

5.7.6 Resolution of Problems/Issues

The Contractor shall perform the following services:

a) Troubleshoot and solve problems/issues related to the database instance or related tools. Document these problems/issues and lessons as defined in Technical Status Reports (DRD 2).

b) Interface with system administrator and application developers to develop solutions to problems and implement corrective action.

5.8 Customer Support

The Contractor shall provide Help Desk Support for all NTTS systems, applications and defined operational procedures from Monday through Friday from 8 AM to 8 PM EST/EDT. Customer support shall include the following activities.

- Provide an email account, telephone number with phone mail, and web-based tracking system for electronic and telephonic service requests for support Monday through Friday from 8 AM to 8 PM EST/EDT.
- Issue confirmation via E-mail or telephone call to the requester of the receipt of a help request within 1 hour of the request.

- Maintain an electronic tracking system of support requests containing the dates of help requests, requester's name, requester's center, description, and resolution description. This system shall also serve as a bug reporting system for NTTS users. Access to system shall be to all users of NTTS.
- Notify the COTR if any request cannot be resolved within 8 hours of the request. The COTR will provide guidance as to the disposition of the request.

5.9 Application Specialist

NASA Center on-site space shall be provided for contract support of the NTTS Application Specialist requirement. At Contract award the contractor shall provide application specialist support at NASA HQ and NASA Langley. NASA provided NTTS application specialists support is located on-site at each NASA Center.

The Contractor shall provide the following services during the core support hours of 8AM to 4:30 PM, Monday - Friday, except scheduled NASA holidays.

5.9.1 System Application Support

- Coordinate system and database administration activities to NTTS servers, including account maintenance, security, maintenance, backup and general care with the ODIN contractor and the technical support contractors of the NTTS applications.
- Provide expert support for the NTTS systems and applications to all database users. Support will be provided during normal office hours unless otherwise requested and agreed upon.
- Provide training on NTTS to Center users.
- Solicit feedback from users for improvements to NTTS.
- Provide recommendations in support of NTTS continuous improvement processes to COTR.

5.9.2 Database Reporting and Quality Assurance

- Assure accurate and complete data input into NTTS.
- Acquire additional information from NASA sources where fields are incomplete within NTTS.
- Develop metrics reporting and other report requirements as necessary.

5.10 Processing Procedures

The Contractor shall establish a set of procedures to be executed and maintained by the Contractor. NTTS processing procedures are located at http://ncis.nasa.gov under documentation, type "System". The contractor shall perform the following.

a) Develop and implement a project schedule of the NTTS processing procedures.

b) In coordination with the COTR, develop, implement, revise, and terminate NTTS procedures.

c) Procedures shall be in MS Word format and available through the DCS.

5.11 External Interfaces

NTTS interfaces with several other NASA systems and also several external systems. Sections 14.2, Other NASA System Interfaces and 14.3, External Interfaces of the NTTS Project Plan (Exhibit G) define the current external interfaces. Interface Definition Agreements (IDA) are developed and maintained to facilitate the NTTS external interfaces. See http://ncis.nasa.gov under documentation, type System for NTTS IDAs and processing procedures. The Contractor shall support the NTTS external interfaces as defined in the NTTS processing procedures and the IDA's.

5.12 Sustaining System Management and Architecture Work Plan

As defined in section 2.3, Implement Sustaining System Management and Architecture of the NTTS Project Plan (Exhibit G), Thrust 2 project activities will consist of studies, recommendations, and implementations to accomplish the following while maintaining current functionality and user experience. The Contractor shall submit a work plan to accomplish Thrust 2. The work plan shall include, but is not limited to, activities defined in Sustaining Architecture Work Plan (DRD 17) and shall be delivered to the COTR for review 2 months from the contract award date. Upon work plan approval, the Contractor shall complete the work plan within 2 years from work plan approval.

6.0 Systems and Applications Development Services

In support of activities defined in Thrusts 2 and 3 of the NTTS Project Plan (Exhibit G), services in this category involve the development of new software or the modification of existing software to change or add to its functionality. Modifications also include correction of faults, improvements of performance or other attributes, or to adapt to a changed environment. Requirements will include but will not be limited to the following:

a) Design and development of new software packages to meet specified requirements.

b) Design and development of new systems integrated from hardware, commercial software, and newly developed applications.

c) Modifications to existing software to change or add to its functionality.

6.1 Task Orders

The Contractor shall provide development services on an "as needed" basis in response to TOs issued by the Contracting Officer. TOs will provide the specific details of the technical requirements, any Government furnished equipment or Government furnished information, and a schedule of milestones and deliverables. Following a review by the COTR and negotiation with the contractor, the LaRC Contracting Officer (CO) or designee will authorize the Contractor to begin the work.

6.2 Work Requirements

In the planning and execution of the work as specified in the TO, the Contractor shall undertake any or all of the following activities and shall adhere to the NTTS development cycle process defined in section 5.1.2, Sustaining Architecture and Evolving Functionality of the NTTS Project Plan (Exhibit G):

a) Requirements Analysis and Planning: Analyze requirements to determine the feasibility of providing the desired software, target computer system, computer programs, results, documentation or other deliverables.

b) System Integration: Integrate equipment, software, communications, and processes to develop and deploy a new system or IT capability, including procurement of hardware and software if required.

c) Software Design and Development: Design, develop, and test software to meet specified technical and quality requirements.

d) Software Modification: Modify existing software in order to change or add to its functionality.

e) Quality Assurance and Software Testing: Perform software quality assurance, prepare test plans, perform software acceptance testing, and document test results.

f) Planning for Installation, Operations, or Maintenance Services: Prepare plans for these activities to follow systems or applications delivery.

g) Documentation: Develop or update documentation such as user manuals, reference manuals, design documents, and test plans using electronic format defined in SOW section 5.0, Operation and Support Services.

h) Problem Analysis: Perform independent analysis of mathematical, logical, system approaches and perform comparison studies of competing techniques to solve problems.

i) Process Improvement: Collect and analyze process and product metrics. Identify, evaluate, and implement promising new technologies to improve productivity and quality.

6.3 Consultation and Training

The contractor shall provide technical support, consulting, and coordination to ensure orderly system implementation, integration, and operation of all systems, systems software, and application software identified in task orders. Additional consulting requirements may be identified in task orders and include, but are not limited to:

a) Work with COTR in defining data and information requirements, data sources, and intended end-user applications, and recommend appropriate information technology, products, and capabilities for satisfying information requirements.

b) Design, develop, and revise training materials for systems and applications relevant to task orders. Schedule classes, arrange logistics for classes, conduct training, validate training effectiveness, and provide information for input to student records.

c) Perform studies analyzing new technologies, analyzing feasibility of technical approaches, defining user requirements, analyzing existing environments, identifying constraints, deriving and analyzing alternative solutions, recommending approaches and solutions, and estimating costs and benefits.

6.4 Implementation

The contractor shall provide a release test plan (DRD 14), technical support, consulting, and coordination to ensure orderly system implementation, integration, and operation of all systems, systems software, and application software identified in task orders.

7.0 Contract and Work Management

7.1 Project Management

The Contractor shall provide project management for all activities under the contract. Requirements include, but are not limited to:

- Creating, maintaining, and reporting on the Project schedule (DRD 3)
- Providing cost estimates on contact activities down to the task order level on 533M (DRD 4)
- Weekly schedule status reports (DRD 2)
- Resolves Customer Support issues.

7.2 Operations Management

The Contractor shall provide operations management for all activities defined in section 5 of this SOW.
Requirements include but are not limited to:

- Management of operations of NTTS production and test systems.
- Creating, maintaining, and reporting on scheduled operational processes
- Management of Customer Support
- IT Security Administration

7.3 Performance Measurements

Outcome/Standard	Minimum Acceptable Performance	Acceptable Performance	Performance Goal	Surveillance Method
Maximize system availability & performance	Systems available and operational >96% of the time	Systems available and operational >98% of the time	Systems available and operational 100% of the time	Contractor data; IT services log; Performance monitors
IT systems in Compliance with NPR 2810.1	Minor non-compliance that are corrected within 10 days, with no repeat violations	Minor non-compliance that are corrected within 5 days, with no repeat violations	Full compliance	Contractor data; IT services log; Performance monitors Audit reports
Maintain database integrity	Minor IT data discrepancies corrected within 10 days	Minor IT data discrepancies corrected within 5 days	No significant IT data discrepancies	Contractor data; Audits; customer feedback; performance monitors
Meet project performance goals & objectives	Cost, schedule, & performance objectives for the evaluation period marginally met	Cost, schedule, & performance objectives for the evaluation period substantially met	Cost, schedule, & performance objectives for the evaluation period fully met	Contractor data; Input from performance monitors; customer survey information
Effective IT customer service and communications	Service request performance objectives are met >88% of the time	Service request performance objectives are met >92% of the time	Service request performance objectives are met >95% of the time	Contractor data; Input from performance monitors; customer survey information

[END OF SECTION]

SECTION D - PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE

None included by reference.

(End Of Clause)
[END OF SECTION]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-4	AUG 1996	INSPECTION OF SERVICES—FIXED-PRICE (Phase-in only)
52.246-5	APR 1984	INSPECTION OF SERVICES-- COST-REIMBURSEMENT

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE

None included by reference.

(End of Clause)

SECTION F - DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.242-15	AUG 1989	STOP-WORK ORDER (ALTERNATE I) (APR 1
52.247-34	NOV 1991	F.O.B. DESTINATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE

None included by reference.

(End Of Clause)

F.2 PERIOD OF PERFORMANCE (LaRC 52.211-91) (NOV 2002)

The period of performance of this contract shall be 24 months from the effective date of the contract, inclusive of the phase-in period.

(End of Provision)

F.3 PLACE(S) OF PERFORMANCE (LaRC 52.211-98) (OCT 1992)

The place(s) of performance shall be:

The designated Contractor's facility; NASA, Langley Research Center, Hampton, Virginia; NASA HQ, Washington D.C., and other sites as may be designated by the Contracting Officer.

(End of Provision)

[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
1852.242-73	JUL 2000	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING
1852.216-75	DEC 1988	PAYMENT OF FIXED FEE

(End Of Clause)

G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (NFS 1852.216-87) (MAR 1998)

(a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.

(b) (1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

NASA Langley Research Center
MS 175/ Accounts Payable
Hampton VA 23681

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to

the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the Contracting Officer.

(c) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph(b), the contractor shall prepare and submit vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to the Contractor's DCAA office.

(2) Five copies of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

(i) Copy 1 NASA Contracting Officer
(ii) Copy 2 Auditor
(iii) Copy 3 Contractor
(iv) Copy 4 Contract administration office; and
(v) Copy 5 Project management office.

(3) The Contracting Officer may designate other recipients as required.

(d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b)or (c) of this clause, whichever is applicable, and be forwarded to:

NASA Langley Research Center
MS 175/ Accounts Payable
Hampton VA 23681

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

(End of clause)

G.3 TECHNICAL DIRECTION (NFS 18-52.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270, Contracting officer technical representative (COTR)

delegations. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that--

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the contract; or

(5) Interferes with the Contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority.

If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph(b) above, the Contractor shall not proceed by shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is--

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the Contractor and Contracting Officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the Contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of Clause)

G.4 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NFS 1852.245-71) (JUN 1998)

(a) The Government property described in the clause at 1852.245-77, List of Installation-Accountable Property and Services, shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains

accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

User responsibilities in accordance with NASA Handbook NPR 4200.1, NASA Equipment Management Manual.

The contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(b) (1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

(ii) The contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area:

(iii) The contractor shall establish a record of the property as required by FAR 45.5, Management of Government Property in the Possession of Contractors and 1845.5, Management of Government Property in the Possession of Contractors and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the contractor. The contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the contracting officer and notification of the SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5, Management of Government Property in the Possession of Contractors until its return to the installation.

(2) After transfer of accountability to the Government, the contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer.

(End of clause)

G.5 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NFS 1852.245-77) (JUL 1997)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available is listed in **Exhibit A**. The Government retains accountability for this property under the clause at 1852.245-71, Installation- Accountable Government Property, regardless of its authorized location.

(2) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(3) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

(c) Safety and fire protection for Contractor personnel and facilities.

(d) Installation service facilities: None.

(e) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(f) Cafeteria privileges for Contractor employees during normal operating hours.

(g) Building maintenance for facilities occupied by Contractor personnel.

(h) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services shall be provided on-site, as approved by the Contracting Officer.

(i) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation- Accountable Government Property.

(End of Clause)
[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.223-5	AUG 2003	POLLUTION PREVENTION AND RIGHT- TO-K INFORMATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
1852.223-73	APR 2002	SAFETY AND HEALTH
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.225-70	FEB 2000	EXPORT LICENSES
		Insert in Paragraph (b): NASA LaRC
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS (Altern II)
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION

(End Of Clause)

H.2 SECURITY CLASSIFICATION REQUIREMENTS (NASA 1852.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of restricted but not classified. The data involved in this contract is classified as sensitive. See Federal Acquisition Regulation clause 52.204-2, Security Requirements in this contract and DD Form 254, Contract Security Classification Specification, Exhibit D.

(End of Clause)

H.3 RESTRICTIONS ON PRINTING AND DUPLICATING (NASA 1852.208-81) (OCT 2001)

(a) The Contractor may duplicate or copy any documentation required by this contract in accordance with the provisions of the Government Printing and Binding Regulations, No. 26, S. Pub 101-9, U.S. Government Printing Office, Washington, DC, 20402, published by the Joint Committee on Printing, U.S. Congress.

(b) The Contractor shall not perform, or procure from any commercial source, any printing in connection with the performance of work under this contract. The term "printing" includes the processes of composition, platemaking, presswork, duplicating, silk screen processes, binding, microform, and the end items of such processes and equipment.

(c) The Contractor is authorized to duplicate or copy production units provided the requirement does not exceed 5,000 production units of any one page or 25,000 units in the aggregate of multiple pages. Such pages may not exceed a maximum image size of 10-3/4 by 14-1/4 inches. A "production unit" is one sheet, size 8-1/2 x 11 inches (215 x 280 mm), one side only, and one color ink.

(d) This clause does not preclude writing, editing, preparation of manuscript copy, or preparation of related illustrative material as a part of this contract, or administrative duplicating/copying (for example, necessary forms and instructional materials used by the Contractor to respond to the terms of the contract).

(e) Costs associated with printing, duplicating, or copying in excess of the limits in paragraph (c) of this clause are unallowable without prior written approval of the Contracting Officer. If the Contractor has reason to believe that any activity required in fulfillment of the contract will necessitate any printing or substantial duplicating or copying, it immediately shall provide written notice to the Contracting Officer and request approval prior to proceeding with the activity. Requests will be processed by the Contracting Officer in accordance with the provisions of the Government Printing and Binding Regulations, NFS 1808.802, and NPR 1490.5, NASA Procedures and Guidelines for Printing, Duplicating, and Copying Management.

(f) The Contractor shall include in each subcontract which may involve a requirement for any printing, duplicating, and copying in excess of the limits specified in paragraph (c) of this clause, a

provision substantially the same as this clause, including this paragraph (f).

(End of clause)

H.4 MINIMUM INSURANCE COVERAGE (NASA 1852.228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

(a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least $100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

(b) Comprehensive general (bodily injury) liability insurance of at least $500,000 per occurrence.

(c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least $200,000 per person and $500,000 per occurrence for bodily injury liability and $20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least $200,000 per person and $500,000 per occurrence for bodily injury, other than passenger liability, and $200,000 per occurrence for property damage. Coverage for passenger liability bodily injury

shall be at least $200,000 multiplied by the number of seats or passengers, whichever is greater.

(End of Clause)

H.5 UNESCORTED ACCESS BY U.S CITIZEN CONTRACTOR EMPLOYEES (LaRC 52.204-102) (NOV 2002)

Visits by U.S. citizen contractor employees that are expected will exceed 90 days will require the employee to undergo a Background Investigation. All Contractor employees must, as a minimum, have a favorably adjudicated NASA Agency Check (NAC). However, a NAC is not required if the Contractor can certify that an employee has an active United States Government Security Clearance, (IAW requirements of Executive Order #12968), or has been the subject of a prior favorable NAC investigation.

For contractor employees requiring a NAC, the Contractor shall require its employees to submit a "Name Check Request" (NASA Form 531), an "Authorization for Release of Credit Reports" (NASA Form 1684), and a completed FD-258, "Applicant Fingerprint Card" to the LaRC Badge and Pass Office, Mail Stop 232. Fingerprint cards will be completed at the Badge and Pass Office only. Normal processing time for a NASA NAC is approximately 60 days.

(End of clause)

H.6 (LIMITED) RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION (CBI) (LaRC 52.204-104) (JAN 2002)

(a) NASA may find it necessary to release information submitted by the Contractor, either in response to this solicitation or pursuant to the provisions of this contract, to individuals not employed by NASA. Business information that would ordinarily be entitled to confidential treatment may be included in the information released to these individuals. Accordingly, by submission of this proposal, or signature on this contract or other contracts, the Contractor hereby consents to a limited release of its Confidential Business Information (CBI).

(b) Possible circumstances where the Agency may release the Contractor's CBI include, but are not limited to, the following:

(1) To other Agency contractors and subcontractors, and their employees tasked with assisting the Agency in handling and processing information and documents in the evaluation, the award or the

administration of Agency contracts, such as providing both preaward and post award audit support and specialized technical support to NASA's technical evaluation panels;

(2) To NASA contractors and subcontractors, and their employees engaged in information systems analysis, development, operation, and maintenance, including performing data processing and management functions for the Agency.

(c) NASA recognizes its obligation to protect the contractor from competitive harm that could result from the release of such information to a competitor. Except where otherwise provided by law, NASA will permit the limited release of CBI under subparagraphs (1) or (2) only pursuant to non-disclosure agreements signed by the assisting contractor or subcontractor, and their individual employees who may require access to the CBI to perform the assisting contract.

(d) NASA's responsibilities under the Freedom of Information Act are not affected by this clause.

(e) The Contractor agrees to include this clause, including this paragraph (e), in all subcontracts at all levels awarded pursuant to this contract that require the furnishing of CBI by the subcontractor.

(End of Clause)

H.7 OPTIONS (LaRC 52.217-95) (APR 2002)

Pursuant to the clause entitled "Option to Extend the Term of the Contract (Mar 2000)," the Contractor hereby grants to the Government options to extend the term of the contract for 2 additional periods. Such option(s) are to be exercisable by issuance of a unilateral modification. Upon exercise of such option(s) by the Government, the following items will be increased by the amount specified below for each option period.

Item	First Option Period	Second Option Period
Period of Performance (Ref. F.2)	12 months	24 months
Estimated Cost (CLIN 1) (Ref. B.3)	$592,550	$1,246,233

Fixed Fee (Ref. B.3) (CLIN 1)	$44,441	$93,468
CLIN 2 (IDIQ) (Maximum) (Ref. B.3)	$1,000,000	$1,000,000

(End of Provision)

H.8 SECURITY PROGRAM/NON-U.S. CITIZEN EMPLOYEE ACCESS REQUIREMENTS (LaRC 52.204-91) (OCT 2003)

a. Access to the LaRC by contractor non-U.S. citizen employees, including employees in permanent resident alien status, shall be approved in accordance with NPR 1371.2 and LMS-CP-4850-- "Non- U.S. Citizen(s)/Foreign Representative(s) Visitor Approval". Administrative processing requires advance notice of between 20 to 45 days depending on the nationality of the non-U.S. citizen. Access authorization shall be for a maximum of one year, and must be reevaluated annually. Non-U.S. citizen employees must be under escort at all times while on Center by a U.S. citizen issued a LaRC identification badge.

b. Request for Center access in excess of 90 days requires that a background investigation be conducted on the non-U.S. citizen employee. The processing of a background investigation requires the submittal of a NASA Form 531, "Name Check Request," and a fingerprint card application. Normal processing time for a background investigation is approximately 90 days. A favorably adjudicated background investigation shall allow non-U.S. citizen contractor employee limited unescorted access to the Center. Access shall be limited to work areas identified and deemed necessary and entry and egress to that site.

(End of Clause)

H.9 INCORPORATION OF SECTION K OF THE PROPOSAL BY REFERENCE (LaRC 52.215-107) (NOV 2002)

Pursuant to FAR 15.204-1(b), Uniform Contract Format the completed Section K of the proposal is hereby incorporated by reference.

(End of Clause)

H.10 OBSERVATION OF REGULATIONS AND IDENTIFICATION OF

CONTRACTOR'S EMPLOYEES (LaRC 52.211-104) (APR 2002)

A. Observation of Regulations--In performance of that part of the contract work which may be performed at Langley Research Center or other Government installation, the Contractor shall require its employees to observe the rules and regulations as prescribed by the authorities at Langley Research Center or other installation including all applicable Federal, NASA and Langley safety, health, environmental and security regulations.

B. Identification Badges--At all times while on LaRC property, the Contractor shall require its employees, subcontractors and agents to wear badges which will be issued by the NASA LaRC Badge and Pass Office, located at 1 Langley Boulevard (Building No. 1228). Badges shall be issued only between the hours of 6:30 a.m. and 3:30 p.m., Monday through Friday. Contractors will be held accountable for these badges, and may be required to validate outstanding badges on an annual basis with the NASA LaRC Security Office. Immediately upon employee termination or contract completion, badges shall be returned to the NASA LaRC Badge and Pass Office. It is agreed and understood that all NASA identification badges remain the property of NASA and the Government reserves the right to invalidate such badges at any time.

C. Employee Outprocessing--The Contractor shall ensure that all employees who are terminated or no longer connected with work being performed under this contract are out processed through the LaRC Badge and Pass Office. Badges and keys must be accounted for and returned.

(End of Clause)

H.11 LaRC 52.227-28 HANDLING OF DATA (MAY 2003)

(a) "DATA," as used in this clause, means recorded information, regardless of the form, the media on which it may be recorded, or the method of recording. The term includes, but is not limited to, models, photographs, lab notebooks, diagrams, drawings, information subject to the Privacy Act, information of a scientific or technical nature, computer software and documentation thereof, and information of a commercial or financial nature.

(b) In the performance of this contract the Contractor will have access to, be furnished, generate, or use one or more of the following categories of DATA:

(1) DATA of third parties that the Government has agreed to handle under protective arrangements;

(2) Government DATA, the use and dissemination of which the Government intends to control or is required to control by law; or

(3) DATA that the Contractor will create or assist in creating under this contract that the Government has agreed to handle under protective arrangements or indicates that it intends to control.

(c) In order to protect the interests of the Government and the owners, licensors and licensees of such DATA, the Contractor agrees, with respect to any of the types of DATA identified in paragraph (b), above, that is either marked with a restrictive legend, specifically identified to the Contractor as DATA being generated and to be marked with a restrictive legend, or otherwise identified in writing by the Contracting Officer or his or her representative as being subject to this clause, to:

(1) Use, disclose, and reproduce such DATA only to the extent necessary to perform the work required under this contract;

(2) Allow access to such DATA only to those of its employees that require access for their performance under this contract;

(3) Preclude access and disclosure of such DATA by the Contractor's personnel outside of that portion of the Contractor's organization needed for the performance of the Contractor's duties under this contract; and

(4) Return or dispose of such DATA, as the Contracting Officer or his or her representative may direct when the DATA is no longer needed for contract performance.

(d) In the event that DATA includes a legend that the Contractor deems to be ambiguous or unauthorized, the Contractor shall inform the Contracting Officer of such condition. Notwithstanding the ambiguous or unauthorized nature of such a legend, as long as the legend provides an indication that a restriction on the use or disclosure was intended, the Contractor shall treat such DATA pursuant to the requirements of this clause unless otherwise directed, in writing, by the Contracting Officer.

(e) Subject to the notice requirements in (f), below, the Contractor shall not be restricted in the use, disclosure, and reproduction of DATA that:

(1) Is, or becomes, generally available or public knowledge without breach of this clause by the Contractor or its employees;

(2) Is known to the Contractor at the time of disclosure; has been disclosed to the Contractor without restriction from the Government; or has been independently developed by the Contractor outside of the Contractor's activities under this contract;

(3) Has become known to the Contractor without similar restrictions from a source other than the Government or any party having work performed under this contract, that source having the right to disclose such DATA; or

(4) The Contractor is required to produce such DATA pursuant to a court order or similar Government action.

(f) If the Contractor believes that any event or condition removes the restrictions on their use, disclosure, or reproduction of DATA, the Contractor shall promptly notify the Contracting Officer in writing of such belief before acting on such belief, and, in any event, shall give written notice to the Contracting Officer before unrestricted use, disclosure, or reproduction of such DATA.

(g) Before the Contractor has access to DATA identified in paragraph (b), above, the Contractor shall provide the Contracting Officer an acceptable written plan by which it intends to assure that its personnel who have or might reasonably have access to any such DATA, will honor the Contractor's obligation to safeguard such DATA. Should the Contracting Officer consider the proposed plan inadequate, the Contractor will be advised of the inadequacy and the Contractor will provide a revised plan. The Contracting Officer may suspend work under this contract, at no cost to the Government, until such time as the written plan of the Contractor is considered acceptable to the Contracting Officer.

(h) The Contractor agrees to inform and instruct its employees of its and their obligations under this clause and to appropriately bind its employees contractually to comply with the access, use, disclosure, and reproduction provisions of this clause.

(End of clause)

H.12 QUALITY MANAGEMENT SYSTEM COMPLIANCE REQUIREMENTS (ISO 9001:2000) (LaRC 52.246-96) (SEP 2002)

The Contractor's quality system shall be compliant with the requirements of the current ANSI/ISO/ASQC Q ISO 9001 standard, Quality Management Systems Requirements.

If the Contractor's quality system is not already compliant with the requirements of the current ANSI/ISO/ASQC Q ISO 9001 standard, the Contractor shall develop quality system procedures and associated documentation to become compliant within nine months after the contract effective date.

Once compliance with the current ANSI/ISO/ASQC Q ISO 9001 has been achieved, an updated Quality System Manual and final documentation (addressing the topics noted in the Contractor's compliance plan) should be submitted for review and acceptance.

The Contractor's quality system shall remain in compliance with the ISO 9001 standard during the term of the contract. The Government reserves the right to audit the Contractor's quality system at any time.

"Compliant" as used in this clause means that the contractor has defined, documented, and will continually implement during the term of the contract management-approved methods of operation that conform to the requirements given in the above-cited International Standard.

(End of Provision)

H.13 QUALITY MANAGEMENT SYSTEM REQUIREMENTS (ISO 9001:2000) (LaRC 52.246-97) (SEP 2002)

The Contractor's quality system shall be compliant with the requirements of the current ANSI/ISO/ASQC Q ISO 9001 standard, Quality Management Systems Requirements.

The Contractor's quality system shall remain in compliance with the ISO 9001 standard during the term of the contract. The Government reserves the rights to audit the Contractor's quality system at any time

"Compliant" as used in this clause means that the contractor has defined, documented, and will continually implement during the term of the contract management-approved methods of operation that conform to the requirements given in the above-cited International Standard.

(End of Provision)

H.14 TASK ORDERING PROCEDURE (NFS 1852.216-80) (OCT 1996)

(a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform

work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.

(c) Within 10 calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

(d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(4) Performance standards, and where appropriate, quality assurance standards.

(5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

(6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(7) Delivery/performance schedule including start and end dates.

(8) If contract funding is by individual task order, accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within 7 calendar days after receipt of the task order.

(f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

[END OF SECTION]

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	JUL 2004	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	JUN 2003	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	OCT 2003	CENTRAL CONTRACTOR REGISTRATION
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.215-2	JUN 1999	AUDIT AND RECORDS--NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA -MODIFICATIONS
52.215-13	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA - MODIFICATIONS
52.215-15	JAN 2004	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OF MONEY
52.215-18	OCT 1997	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS
52.215-19	OCT 1997	NOTIFICATION OF OWNERSHIP CHANGES
52.216-7	DEC 2002	ALLOWABLE COST AND PAYMENT

Insert 30th in Paragraph (a)(3).

52.216-8 MAR 1997 FIXED FEE

52.216-18 OCT 1995 ORDERING
Insert "__05/01/2005__" through "__04/30/2007__" in paragraph (a).

52.216-19 OCT 1995 ORDER LIMITATIONS
Insert "__$500__", "__$3 million__", "__$3 million__", "__30__" and "__10__" in paragraphs (a), (b)(1), (b)(2), (b)(3) and (d), respectively.

52.215-21 Requirements for Cost/Pricing data or Information Other than cost/Pricing Data - modifications

52.216-22 OCT 1995 INDEFINITE QUANTITY
Insert "the end of the contract period of performance" in paragraph (d).

52.217-8 NOV 1999 OPTION TO EXTEND SERVICES

52.217-9 MAR 2000 OPTION TO EXTEND THE TERM OF THE CONTRACT
Insert "any amount of time before end of current period of performance end date" and "__5__", respectively, in paragraph (a). Insert "__60__" in paragraph (c).

52.219-6 JUN 2003 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE

52.219-8 MAY 2004 UTILIZATION OF SMALL BUSINESS CONCERNS

52.219-14 DEC 1996 LIMITATION ON SUBCONTRACTING

52.222-1 FEB 1997 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES

52.222-2 JUL 1990 PAYMENT FOR OVERTIME PREMIUMS
Insert "$__0__" in paragraph (a).

52.222-21 FEB 1999 PROHIBITION OF SEGREGATED FACILITIES

52.222-26 APR 2002 EQUAL OPPORTUNITY

52.222-35 DEC 2001 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS

52.222-36 JUN 1998 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES

52.222-37 DEC 2001 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS

52.222-41 MAY 1989 SERVICE CONTRACT ACT OF 1965, AS AMENDED

52.223-6 MAY 2001 DRUG-FREE WORKPLACE

52.223-10 AUG 2000 WASTE REDUCTION PROGRAM

52.223-14 AUG 2003 TOXIC CHEMICAL RELEASE REPORTING

52.224-1 APR 1984 PRIVACY ACT NOTIFICATION

52.224-2 APR 1984 PRIVACY ACT

52.225-13 DEC 2003 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES

52.227-1 JUL 1995 AUTHORIZATION AND CONSENT

52.227-2 AUG 1996 NOTICE AND ASSISTANCE REGARDING PATENT COPYRIGHT INFIRNGEMENT

52.227-3 APR 1984 PATENT INDEMNITY

52.227-10 APR 1984 FILING OF PATENT APPLICATIONS-- CLASSIFIED SUBJECT MATTER

52.227-14 JUN 1987 RIGHTS IN DATA--GENERAL As modified by 1852.227-14 NASA FAR Supplement (OCT 1995)

52.227-14 JUN 1987 RIGHTS IN DATA--GENERAL (ALTERNATE V) (JUN 1987)

52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.228-7	MAR 1996	INSURANCE LIABILITY TO THIRD PERSONS
52.232-17	JUN 1996	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2003	PROMPT PAYMENT (ALTERNATE I) (FEB 2002)
52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER--OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY SAFEGUARDS
52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-2	AUG 1987	CHANGES--COST-REIMBURSEMENT (ALTERNATE I) (APR 1984)
52.244-2	AUG 1998	SUBCONTRACTS (Alt I)
52.245-5	MAY 2004	GOVERNMENT PROPERTY (COST- REIMBURSEMENT, TIME-AND- MATERIAL, OR LABOR-HOUR CONTRACTS)
52.246-25	FEB 1997	LIMITATION OF LIABILITY-- SERVICES
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.204-76	JUL 2002	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES
	Insert "within 30 days" in paragraph (c).	
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.243-71	MAR 1997	SHARED SAVINGS

III. The following clauses are applicable only to the fixed price (CLIN 00) phase-in task order issued under this contract.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

CLAUSE NUMBER	DATE	TITLE

52.222-43	MAY 1989	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT--PRICE ADJUSTMENT (MULTIYEAR AND OPTION CONTRACTS)
52.228-5	JAN 1997	INSURANCE--WORK ON A GOVERNMENT INSTALLATION
52.229-3	APR 2003	FEDERAL, STATE, AND LOCAL TAXES
52.232-1	APR 1984	PAYMENTS
52.232-8	FEB 2002	DISCOUNTS FOR PROMPT PAYMENT
52.232-11	APR 1984	EXTRAS
52.232-25	OCT 2003	PROMPT PAYMENT
52.233-3	AUG 1996	PROTEST AFTER AWARD
52.242-15	AUG 1989	STOP-WORK ORDER (AUG 1980)
52.243-1	AUG 1987	CHANGES—FIXED PRICE (ALTERNATE I) (APR 1984)
52.249-4	APR 1984	TERMINATION FOR THE CONVENIENCE OF THE GOVERNMENT (SERVICES) (SHORT FORM)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)

(End Of Clause)

I.2 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at *this/these address(es):*

_____http://www.arnet.gov/far/_____

____http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm___

(End of clause)

I.3 OMBUDSMAN (NFS 1852.215-84) (OCT 2003) (ALTERNATE I) (JUN 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns,

issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, Christine Darden, direct inquires to Panice H. Clark, NASA Langley Research Center, Mail Stop 134, Hampton, VA 23681-2199; phone (757) 864-2522; facsimile (757) 864-8541; email Panice.H.Clark@nasa.gov.

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer or as specified elsewhere in this document.

(c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

(End of clause)

I.4 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY: IT IS NOT A WAGE DETERMINATION

Employee Class	Monetary Wage
Help Desk Specialist - Level 1	$15.84
Help Desk Specialist - Level 2	$15.84
Help Desk Operation Supervisor	$19.38
Technical Writer	$15.84
Systems Analyst	$19.38
Programmer Analyst - Level 1	$19.38

Programmer Analyst - Level 2	$23.45
Systems Project Manager - Level 2	$28.11
Systems Engineer - Level 1	$23.45
Sr. Software Engineer - Level 2	$28.11
Sr. Software Engineer - Level 3	$33.43
Systems and Program Manager - Level 3	$39.50
Director of Product Development	$46.46

Note: The position descriptions and qualifications can be found in Attachment 5.

FRINGE BENEFITS

Annual Leave - Receives 13 days paid leave for service up to 3 years; 20 days for 3 to 15 years service; and 26 days for 15 years service or over.

Sick Leave - Receives 13 days paid leave per year.

Holidays - Receives 10 paid holidays per year.

Health Insurance - Government pays up to 60% of health insurance.

Group Life Insurance - Government pays two-thirds of life insurance rate premiums.

Retirement - The Government provides three retirement plans identified as the Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS), and the CSRS Offset. Under the CSRS, the Government contributes 7% of the employees' base pay towards the retirement benefit and 1.45% towards Medicare. Under the FERS, the Government contributes 11.4% of the employees' base pay towards a basic benefit plan, 6.2% to Social Security, 1.45% towards Medicare, and 1% (plus matching contributions of up to 4% of basic pay, depending on employees' contributions) to a thrift savings plan. Under the CSRS Offset, the Government contributes 0.8% of the employees' base pay towards the retirement benefit, 6.2% to Social Security, and 1.45% towards Medicare.

Part-time Federal employees receive pro rata annual leave, sick leave, holiday leave, health insurance, and group life insurance benefits based on the number of hours worked.

[END OF SECTION]

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS AND EXHIBITS

Exhibit A - Installation Provided Property
Exhibit B - Wage Determination
Exhibit C - IT Policy and Guidelines
Exhibit D - DD 254 Form - Contract Security Classification and Specification
Exhibit E - NTTS IT Security and Recovery Plan
Exhibit F - Safety and Health Plan
Exhibit G - NTTS Project Plan
Exhibit H - NTTS User Account Process
Exhibit I - DRL/DRD

[END OF SECTION]

Exhibit A

Government Provide(

ITEM	Quantity
Dell Computers	9
Norton Antivirus for MAC	3
EtherFast II Switch	1
Cold Fusion MX	1
Cable	1
Cisco PIX 515E Firewall	1
Dell Dimension 4500	1
Apple Power Mac G4	3
Router	1
Timbuktu	1
Power Supply	2
8-Port KVM Switch	2
40 GB HD	10
Norton Antivirus	1

EXHIBIT B

94-2544 VA,NORFOLK 08/03/04
FOR OFFICIAL USE ONLY BY FEDERAL AGENCIES PARTICIPATING IN MOU WITH DOL

WASHINGTON D.C. 20210

Wage Determination No.: 1994-2544
William W.Gross Division of Revision No.: 29
Director Wage Determinations Date Of Last Revision: 07/27/2004

States: North Carolina, Virginia

Area: North Carolina Counties of Camden, Chowan, Currituck, Gates, Pasquotank, Perquimans
Virginia Counties of Chesapeake, Gloucester, Hampton, Isle of Wight, James City, Mathews, Newport News, Norfolk, Poquoson, Portsmouth, Southampton, Suffolk, Surry, Virginia Beach, Williamsburg, York

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support and Clerical Occupations	
01011 - Accounting Clerk I	8.38
01012 - Accounting Clerk II	10.58
01013 - Accounting Clerk III	13.17
01014 - Accounting Clerk IV	14.28
01030 - Court Reporter	14.23
01050 - Dispatcher, Motor Vehicle	12.73
01060 - Document Preparation Clerk	10.92
01070 - Messenger (Courier)	8.68
01090 - Duplicating Machine Operator	10.92
01110 - Film/Tape Librarian	10.56
01115 - General Clerk I	8.73
01116 - General Clerk II	10.75
01117 - General Clerk III	13.37
01118 - General Clerk IV	14.95
01120 - Housing Referral Assistant	17.27
01131 - Key Entry Operator I	10.04

01132 - Key Entry Operator II 12.64
01191 - Order Clerk I 12.24
01192 - Order Clerk II 16.02
01261 - Personnel Assistant (Employment) I 12.63
01262 - Personnel Assistant (Employment) II 14.59
01263 - Personnel Assistant (Employment) III 16.33
01264 - Personnel Assistant (Employment) IV 18.20
01270 - Production Control Clerk 19.21
01290 - Rental Clerk 12.49
01300 - Scheduler, Maintenance 13.00
01311 - Secretary I 14.30
01312 - Secretary II 16.65
01313 - Secretary III 19.00
01314 - Secretary IV 22.28
01315 - Secretary V 23.39
01320 - Service Order Dispatcher 12.73
01341 - Stenographer I 11.56
01342 - Stenographer II 14.19
01400 - Supply Technician 20.25
01420 - Survey Worker (Interviewer) 12.02
01460 - Switchboard Operator-Receptionist 10.18
01510 - Test Examiner 15.14
01520 - Test Proctor 15.14
01531 - Travel Clerk I 9.92
01532 - Travel Clerk II 10.59
01533 - Travel Clerk III 11.30
01611 - Word Processor I 11.86
01612 - Word Processor II 14.30
01613 - Word Processor III 14.96
03000 - Automatic Data Processing Occupations
03010 - Computer Data Librarian 10.35
03041 - Computer Operator I 12.14
03042 - Computer Operator II 14.02
03043 - Computer Operator III 17.37
03044 - Computer Operator IV 20.13
03045 - Computer Operator V 21.39
03071 - Computer Programmer I (1) 19.24
03072 - Computer Programmer II (1) 21.77
03073 - Computer Programmer III (1) 25.96
03074 - Computer Programmer IV (1) 27.62
03101 - Computer Systems Analyst I (1) 27.31
03102 - Computer Systems Analyst II (1) 27.62
03103 - Computer Systems Analyst III (1) 27.62
03160 - Peripheral Equipment Operator 12.14
05000 - Automotive Service Occupations
05005 - Automotive Body Repairer, Fiberglass 18.20

05010 - Automotive Glass Installer 16.60
05040 - Automotive Worker 16.60
05070 - Electrician, Automotive 17.38
05100 - Mobile Equipment Servicer 15.00
05130 - Motor Equipment Metal Mechanic 18.20
05160 - Motor Equipment Metal Worker 16.60
05190 - Motor Vehicle Mechanic 18.20
05220 - Motor Vehicle Mechanic Helper 14.15
05250 - Motor Vehicle Upholstery Worker 15.78
05280 - Motor Vehicle Wrecker 16.60
05310 - Painter, Automotive 17.38
05340 - Radiator Repair Specialist 15.78
05370 - Tire Repairer 13.37
05400 - Transmission Repair Specialist 18.20
07000 - Food Preparation and Service Occupations
(not set) - Food Service Worker 7.92
07010 - Baker 9.05
07041 - Cook I 8.43
07042 - Cook II 9.32
07070 - Dishwasher 7.42
07130 - Meat Cutter 12.69
07250 - Waiter/Waitress 7.56
09000 - Furniture Maintenance and Repair Occupations
09010 - Electrostatic Spray Painter 21.23
09040 - Furniture Handler 13.34
09070 - Furniture Refinisher 16.03
09100 - Furniture Refinisher Helper 13.05
09110 - Furniture Repairer, Minor 14.56
09130 - Upholsterer 16.03
11030 - General Services and Support Occupations
11030 - Cleaner, Vehicles 8.87
11060 - Elevator Operator 8.87
11090 - Gardener 10.19
11121 - House Keeping Aid I 7.59
11122 - House Keeping Aid II 9.73
11150 - Janitor 9.16
11210 - Laborer, Grounds Maintenance 9.52
11240 - Maid or Houseman 7.59
11270 - Pest Controller 11.63
11300 - Refuse Collector 11.02
11330 - Tractor Operator 9.71
11360 - Window Cleaner 9.71
12000 - Health Occupations
12020 - Dental Assistant 11.31
12040 - Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver 13.79
12071 - Licensed Practical Nurse I 11.36

12072 - Licensed Practical Nurse II 12.75
12073 - Licensed Practical Nurse III 14.26
12100 - Medical Assistant 10.59
12130 - Medical Laboratory Technician 13.35
12160 - Medical Record Clerk 11.99
12190 - Medical Record Technician 13.15
12221 - Nursing Assistant I 7.77
12222 - Nursing Assistant II 8.74
12223 - Nursing Assistant III 9.54
12224 - Nursing Assistant IV 10.69
12250 - Pharmacy Technician 11.84
12280 - Phlebotomist 12.32
12311 - Registered Nurse I 19.72
12312 - Registered Nurse II 23.42
12313 - Registered Nurse II, Specialist 23.42
12314 - Registered Nurse III 28.34
12315 - Registered Nurse III, Anesthetist 28.34
12316 - Registered Nurse IV 33.96
13000 - Information and Arts Occupations
13002 - Audiovisual Librarian 14.23
13011 - Exhibits Specialist I 16.06
13012 - Exhibits Specialist II 19.51
13013 - Exhibits Specialist III 21.67
13041 - Illustrator I 17.63
13042 - Illustrator II 21.42
13043 - Illustrator III 23.78
13047 - Librarian 22.37
13050 - Library Technician 12.68
13071 - Photographer I 11.73
13072 - Photographer II 15.55
13073 - Photographer III 18.89
13074 - Photographer IV 20.98
13075 - Photographer V 25.39
15000 - Laundry, Dry Cleaning, Pressing and Related Occupations
15010 - Assembler 7.07
15030 - Counter Attendant 7.07
15040 - Dry Cleaner 9.03
15070 - Finisher, Flatwork, Machine 7.07
15090 - Presser, Hand 7.07
15100 - Presser, Machine, Drycleaning 7.07
15130 - Presser, Machine, Shirts 7.07
15160 - Presser, Machine, Wearing Apparel, Laundry 7.07
15190 - Sewing Machine Operator 9.68
15220 - Tailor 10.33
15250 - Washer, Machine 7.72
19000 - Machine Tool Operation and Repair Occupations

19010 - Machine-Tool Operator (Toolroom) 18.75
19040 - Tool and Die Maker 20.78
21000 - Material Handling and Packing Occupations
21010 - Fuel Distribution System Operator 15.62
21020 - Material Coordinator 19.21
21030 - Material Expediter 19.21
21040 - Material Handling Laborer 9.88
21050 - Order Filler 10.15
21071 - Forklift Operator 14.07
21080 - Production Line Worker (Food Processing) 13.56
21100 - Shipping/Receiving Clerk 11.48
21130 - Shipping Packer 12.10
21140 - Store Worker I 10.29
21150 - Stock Clerk (Shelf Stocker; Store Worker II) 12.94
21210 - Tools and Parts Attendant 14.93
21400 - Warehouse Specialist 14.36
23000 - Mechanics and Maintenance and Repair Occupations
23010 - Aircraft Mechanic 20.68
23040 - Aircraft Mechanic Helper 15.24
23050 - Aircraft Quality Control Inspector 21.60
23060 - Aircraft Servicer 16.99
23070 - Aircraft Worker 17.87
23100 - Appliance Mechanic 17.63
23120 - Bicycle Repairer 13.37
23125 - Cable Splicer 20.32
23130 - Carpenter, Maintenance 16.03
23140 - Carpet Layer 17.61
23160 - Electrician, Maintenance 20.86
23181 - Electronics Technician, Maintenance I 18.11
23182 - Electronics Technician, Maintenance II 18.52
23183 - Electronics Technician, Maintenance III 19.84
23260 - Fabric Worker 14.56
23290 - Fire Alarm System Mechanic 16.79
23310 - Fire Extinguisher Repairer 13.84
23340 - Fuel Distribution System Mechanic 18.95
23370 - General Maintenance Worker 16.84
23400 - Heating, Refrigeration and Air Conditioning Mechanic 16.79
23430 - Heavy Equipment Mechanic 16.79
23440 - Heavy Equipment Operator 16.79
23460 - Instrument Mechanic 16.79
23470 - Laborer 10.02
23500 - Locksmith 18.17
23530 - Machinery Maintenance Mechanic 18.43
23550 - Machinist, Maintenance 16.79
23580 - Maintenance Trades Helper 13.05
23640 - Millwright 20.58

23700 - Office Appliance Repairer 16.03
23740 - Painter, Aircraft 18.24
23760 - Painter, Maintenance 16.03
23790 - Pipefitter, Maintenance 18.69
23800 - Plumber, Maintenance 17.84
23820 - Pneudraulic Systems Mechanic 16.79
23850 - Rigger 16.79
23870 - Scale Mechanic 15.31
23890 - Sheet-Metal Worker, Maintenance 16.79
23910 - Small Engine Mechanic 15.31
23930 - Telecommunication Mechanic I 16.79
23931 - Telecommunication Mechanic II 20.16
23950 - Telephone Lineman 16.79
23960 - Welder, Combination, Maintenance 16.79
23965 - Well Driller 16.79
23970 - Woodcraft Worker 16.79
23980 - Woodworker 13.84
24000 - Personal Needs Occupations
24570 - Child Care Attendant 7.32
24580 - Child Care Center Clerk 11.32
24600 - Chore Aid 6.93
24630 - Homemaker 10.88
25000 - Plant and System Operation Occupations
25010 - Boiler Tender 17.76
25040 - Sewage Plant Operator 17.81
25070 - Stationary Engineer 17.76
25190 - Ventilation Equipment Tender 14.36
25210 - Water Treatment Plant Operator 17.81
27000 - Protective Service Occupations
(not set) - Police Officer 17.47
27004 - Alarm Monitor 13.15
27006 - Corrections Officer 13.60
27010 - Court Security Officer 14.67
27040 - Detention Officer 13.60
27070 - Firefighter 13.99
27101 - Guard I 9.30
27102 - Guard II 11.13
28000 - Stevedoring/Longshoremen Occupations
28010 - Blocker and Bracer 15.07
28020 - Hatch Tender 15.07
28030 - Line Handler 15.07
28040 - Stevedore I 15.44
28050 - Stevedore II 16.96
29000 - Technical Occupations
21150 - Graphic Artist 18.24
29010 - Air Traffic Control Specialist, Center (2) 30.50

29011 - Air Traffic Control Specialist, Station (2) 21.03
29012 - Air Traffic Control Specialist, Terminal (2) 23.16
29023 - Archeological Technician I 13.29
29024 - Archeological Technician II 14.95
29025 - Archeological Technician III 18.46
29030 - Cartographic Technician 20.13
29035 - Computer Based Training (CBT) Specialist/ Instructor 27.31
29040 - Civil Engineering Technician 18.89
29061 - Drafter I 11.71
29062 - Drafter II 13.18
29063 - Drafter III 16.56
29064 - Drafter IV 20.13
29081 - Engineering Technician I 15.58
29082 - Engineering Technician II 16.67
29083 - Engineering Technician III 20.54
29084 - Engineering Technician IV 24.87
29085 - Engineering Technician V 29.05
29086 - Engineering Technician VI 35.89
29090 - Environmental Technician 16.43
29100 - Flight Simulator/Instructor (Pilot) 27.62
29160 - Instructor 21.28
29210 - Laboratory Technician 16.35
29240 - Mathematical Technician 20.13
29361 - Paralegal/Legal Assistant I 12.85
29362 - Paralegal/Legal Assistant II 15.60
29363 - Paralegal/Legal Assistant III 19.09
29364 - Paralegal/Legal Assistant IV 23.09
29390 - Photooptics Technician 20.13
29480 - Technical Writer 22.30
29491 - Unexploded Ordnance (UXO) Technician I 19.38
29492 - Unexploded Ordnance (UXO) Technician II 23.45
29493 - Unexploded Ordnance (UXO) Technician III 28.11
29494 - Unexploded (UXO) Safety Escort 19.38
29495 - Unexploded (UXO) Sweep Personnel 19.38
29620 - Weather Observer, Senior (3) 18.44
29621 - Weather Observer, Combined Upper Air and Surface Programs (3) 17.04
29622 - Weather Observer, Upper Air (3) 17.04
31000 - Transportation/ Mobile Equipment Operation Occupations
31030 - Bus Driver 11.43
31260 - Parking and Lot Attendant 7.69
31290 - Shuttle Bus Driver 11.11
31300 - Taxi Driver 10.29
31361 - Truckdriver, Light Truck 11.11
31362 - Truckdriver, Medium Truck 12.17
31363 - Truckdriver, Heavy Truck 14.64
31364 - Truckdriver, Tractor-Trailer 14.64

99000 - Miscellaneous Occupations

99020 - Animal Caretaker	7.99
99030 - Cashier	7.67
99041 - Carnival Equipment Operator	10.11
99042 - Carnival Equipment Repairer	10.61
99043 - Carnival Worker	7.20
99050 - Desk Clerk	8.30
99095 - Embalmer	17.93
99300 - Lifeguard	9.77
99310 - Mortician	23.11
99350 - Park Attendant (Aide)	12.25
99400 - Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.04
99500 - Recreation Specialist	14.85
99510 - Recycling Worker	13.50
99610 - Sales Clerk	9.40
99620 - School Crossing Guard (Crosswalk Attendant)	9.62
99630 - Sport Official	8.49
99658 - Survey Party Chief (Chief of Party)	15.04
99659 - Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	13.67
99660 - Surveying Aide	9.39
99690 - Swimming Pool Operator	11.69
99720 - Vending Machine Attendant	11.47
99730 - Vending Machine Repairer	13.44
99740 - Vending Machine Repairer Helper	11.47

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of $2.59 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 8 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** NOTES APPLYING TO THIS WAGE DETERMINATION **

Under the policy and guidance contained in All Agency Memorandum No. 159, the Wage
and Hour Division does not recognize, for section 4(c) purposes, prospective wage rates and fringe benefit provisions that are effective only upon such contingencies as "approval of Wage and Hour, issuance of a wage determination, incorporation of the wage determination in the contract, adjusting the contract price, etc." (The relevant CBA section) in the collective bargaining agreement between (the parties) contains contingency language that Wage and Hour does not recognize as reflecting "arm's length negotiation" under section 4(c) of the Act and 29 C.F.R. 5.11(a) of the regulations. This wage determination therefore reflects the actual CBA wage rates and fringe benefits paid under the predecessor contract.

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained

from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation) and computes a proposed rate).

2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the

request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

Exhibit C - IT Policy and Guidelines

Table 3 - NASA Policies Supported by NASA Technology Transfer Systems

Document Identifier	Title	URL Link
NPD 1000.1C	NASA Strategic Plan	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=1___
NPG 1000.2	NASA Strategic Management Handbook	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=1___
NPD 1050.1G	Authority to Enter Into a Space Act	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=1___
NPD 1440.6G	NASA Records Management	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=1___
NPD 2091.1A	Government Employee-Created Software	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD/G 2092.1A	Royalties And Other Payments Received By NASA From The Licensing Of Patents And Patent	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___

	Applications	
NPD 2110.1E	Foreign Access to NASA Technology Transfer Material	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD 2190.1	NASA Export Control Program	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPG 2200.2A	Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information (STI)	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD/G 2210.1A	External Release of NASA Software	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD/G 2800.1	Managing Information Technology	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD/G 2810.1	Security of Information Technology	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPD 2820.1A	NASA Software Policies	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=2___
NPG 3451.1	NASA Awards and Recognition	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=3___

	Program	
NPD 7120.4B	Program/Project Management	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=7___
NPG 7120.5B	NASA Program and Project Management Processes and Requirements	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=7___
NPD 7500.2	NASA Technology Commercialization Policy	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=7___
NPG 7500.1	NASA Technology Commercialization Process	http://nodis3.gsfc.nasa.gov/lib_docs.cfm?range=7___

EXHIBIT D - CONTRACT SECURITY CLASSIFICATION SPECIFICATION DD 254

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual apply to all aspects of this effort)

1. CLEARANCE AND SAFEGUARDING
a. FACILITY CLEARANCE REQUIRED: Sensitive
b. LEVEL OF SAFEGUARDING REQUIRED: NONE

2. THIS SPECIFICATION IS FOR: (X and complete as applicable)			3. THIS SPECIFICATION IS: (X and complete as applicable)		
	a. PRIME CONTRACT NUMBER			a. ORIGINAL (Complete date in all cases)	Date (YYMMDD)
	b. SUBCONTRACT NUMBER			b. REVISED (Supersedes all previous specs) / Revision No.	Date (YYMMDD)
X	c. SOLICITATION OR OTHER NUMBER: NNL05060843R	Due Date (YYMMDD)		c. FINAL (Complete Item 5 in all cases)	Date (YYMMDD)

4. IS THIS A FOLLOW-ON CONTRACT? [X] YES [ ] NO. If Yes complete the following

Classified material received or generated under _____ (Preceding Contract Number) is transferred to this follow-on contract

5. IS THIS A FINAL DD FORM 254? [ ] YES [X] NO. If Yes complete the following

In response to the contractor's request dated _____, retention of the identified classified material is authorized for the period of _____.

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICES (Name, Address, and Zip Code)

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
NASA LANGLEY RESEARCH CENTER HAMPTON, VA 23561-2199	N/A	N/A

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

NASA Technology Transfer Systems

10. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		X	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	X	
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		X
d. FORMERLY RESTRICTED DATA:		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. INTELLIGENCE INFORMATION:			e. PERFORM SERVICES ONLY		X
(1) Sensitive Compartmented Information (SCI)		X	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
(2) Non-SCI		X	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		X
f. SPECIAL ACCESS INFORMATION		X	h. REQUIRE A COMSEC ACCOUNT		X
g. NATO INFORMATION		X	i. HAVE A TEMPEST REQUIREMENT		X
h. FOREIGN GOVERNMENT INFORMATION		X	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		X
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER (Specify) .		X
k. OTHER Specify)					

DD Form 254, DEC 1999 *Previous editions are obsolete*

12. PUBLIC RELEASE. Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as provided by the industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public release shall be submitted for approval prior to release

[ ] Direct [X] Through *(Specify)*:

NASA LANGLEY RESEARCH CENTER, M/S 126, HAMPTON, VA 23681-2199
ATTN: David H. Jones

To the Office of Public Affairs, National Aeronautics and Space Administration, Washington, DC 20546, for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any document/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

ALL PERFORMANCE OF WORK FOR THIS PROCUREMENT INVOLVING CLASSIFIED INFORMATION SHALL BE PERFORMED AT GOVERNMENT OR PROPERLY CLEARED CONTRACTOR FACILITIES.

THE CONTRACTOR HAS NO PERFORMANCE REQUIREMENTS INVOLVING THE GENERATION OR SAFEGUARDING OF CLASSIFIED NATIONAL SECURITY INFORMATION. THE CONTRACTOR PERFORMANCE WILL INVOLVE PERIODIC ACCESS TO CLASSIFIED INFORMATION TO THE SECRET LEVEL.

THE CONTRACTOR FACILITY SECURITY OFFICER (FSO) SHALL CERTIFY THE SECURITY CLEARANCE STATUS OF EMPLOYEES SUPPORTING THIS CONTRACT VIA STANDARD VISIT REQUEST SUBMITTED ANNUALLY OR AS REQUIRED TO THE CERTIFIER IDENTIFIED IN SECTION 16A. THE VISIT REQUEST SHALL INCLUDE THE LEVEL OF CLEARANCE, DATE OF ISSUE, INVESTIGATION TYPE AND DATE COMPLETED.

CONTRACTORS PERFORMING SERVICES ON CONTRACTS INVOLVING ACCESS TO CLASSIFIED INFORMATION ARE SUBJECT TO SECURITY INSPECTIONS BY NASA SECURITY REPRESENTATIVES IN ADDITION TO ANY OVERSIGHT VISITS PERFORMED BY THE DEFENSE SECURITY SERVICE.

THE CERTIFIER IN SECTION 16A SHALL BE PROVIDED A COPY OF ANY DD FORMS 254 ISSUED TO SUBCONTRACTORS PERFORMING WORK FOR THIS CONTRACT.

14. ADDITIONAL SECURITY REQUIREMENTS. *Requirements, in addition to ISM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)* [ ] Yes [X] No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. *(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.* [ ] Yes [X] No

16. CERTIFICATION AND SIGNATURE. **Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.**

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
MICHAEL E. REAGAN	SECURITY SPECIALIST	(757) 864-9470

d. ADDRESS *(Include ZIP Code)*
NASA LANGLEY RESEARCH CENTER
M/S 450, ATTN: MICHAEL REAGAN
HAMPTON, VA 23681-2199

e. SIGNATURE

17. REQUIRED DISTRIBUTION

X	a. CONTRACTOR
	b. SUBCONTRACTOR
	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	e. ADMINISTRATIVE CONTRACTING OFFICER
	f. OTHERS AS NECESSARY

EXHIBIT E - IT SECURITY PLAN

(ATTACH HERE)

EXHIBIT E

LANGLEY RESEARCH CENTER

INFORMATION TECHNOLOGY SECURITY

IT SYSTEM SECURITY PLAN
For

NASA Technology Transfer System
11/30/2003

Replaces Plan Dated 10/01/2000
(Template revised May 27, 2003)

Prepared By: Dianne L. Cheek

Approvals

Signature _____ Date _____

Computer Security Official

I have reviewed the technical and policy security controls for NASA Technology Transfer System described in this IT security plan. These controls adequately secure the data and operations of NASA Technology Transfer System. A request for waiver of any unmet baseline requirements is included in the plan. I thus grant NASA Technology Transfer System authorization to process.

Signature _____ Date _____

Head, Program Development and Management Office - (Data Owner)

I have reviewed the IT security plan for NASA Technology Transfer System and evaluated the various security controls and requests for waiver on unmet baseline requirements. The waivers are granted pending the completion of a formal risk analysis based on this plan. It will be provided to the data owner, Head, Program Development and Management Office, and the Langley CIO within fiscal year 2004.

Signature _____ Date _____

Langley Information Technology Security Manager

I concur with the Head, Program Development and Management Office and the Langley IT Security Manager and authorize NASA Technology Transfer System to process.

Signature _____ Date _____

Langley Chief Information Officer

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Attachments

Attachment A – NTTS Project Plan
Attachment B - List of software on systems
Attachment C - List of other Center System Administrators
Attachment D – NTTS Risk Assessment November 2003
Attachment E - NTTS User Account Process

SYSTEM IDENTIFICATION

I. System Identification

A. Responsibilities

1. Organization PROGRAM DEVELOPMENT AND MANAGEMENT OFFICE

2. Line Manager Richard Buonfigli

B. Name or Title of the System or Application:

NASA Technology Transfer System (NTTS)

C. Special Management Attention:

1. [x] Major Information system.

2. [x] Mission Critical System.

3. [] NASA Resource Protection (NRP) Facility.

4. [] Center Designated.

5. [] Not Applicable.

D. Operational Status:

1. [x] Operational

2. [] Non-operational

E. General Description/Purpose :

NTTS is managed under a 7120 project plan approved by NASA HQ and Langley Research Center. In support the information requested in this document, excerpts from the Plan have been inserted, as the Plan information is applicable to the topic. The entire Plan is provided in Attachment A.

1. Hardware make and model of major components of the system.

The NTTS technology architecture is the physical configuration, network, hardware, and software components that enable the application architecture.

Several COTS products are integrated together to respond to the defined requirements. Relational database technology is used due to

its logical approach to information storage that matches with a user's perception of information and its controlled redundancy that supports relations of many to one and simplifies data manipulation logic. [redacted] 4th Dimension (4D) and MS SQL Server. Both systems support industry standards and are ODBC compliant. In addition to the database engine, 4D provides a family of products that are an integral part of the NTTS operational capabilities.

[redacted] A new application was developed to allow real-time data exchange of information between TTS and KIMS; DataPump. The DataPump employs both database engines' compatible features in its processing.

There are several web sites in [redacted] Cold Fusion and NetLink. [redacted]

NTTS is compatible with both PC's running Windows 98, NT, or 2000 and Macintosh systems running MacOS 9.x or higher. Refer to NTTS_System_Requirements located on http://ncis.nasa.gov for the most recent recommended machine configurations.

NTTS is a distributed system with physical locations at each NASA Center. Each Center has a 4D database server and an intelligent background processor that facilitates the real time synchronization between the Center systems and the Agency systems. All agency systems are located at Langley Research Center.

The NTTS network utilizes the public network, NISSN, and center virtual private networks (VPN). NASA users within Centers use Center internal networks for connection to local servers and NISSN for connection to the agency systems. NASA users outside centers and the technical support team use identified center VPN's and the public network for connection to NTTS. Users on NASA funded agreements use the public network and secure socket layer.

2. Major uses of the system

The customer base of NTTS is very broad and many customers have several responsibilities that influence the method in which they employ NTTS and therefore the uses of the system.

NASA Innovators: Virtually anyone working on a NASA activity—whether a NASA employee or contractor/grantee—could be an innovator. Capturing and submitting a complete description of innovations is a resource intensive activity. The efficiency of electronic reporting supported by eNTRe coupled with the status reporting of NTTS provide supportive tools for Innovators' reporting requirements.

Technology Transfer Offices: TTO's can exist both at a Center level, as well as, within each NASA Enterprise. Predominantly, these offices are located at the Center level. Within each TTO there are several potential teams including—

- New Technology Representative
- Marketing
- Training
- Metrics
- E-Net
- Partnership Managers

Each one of these teams use multiple and different aspects of the NTTS.

Intellectual Property Offices: Each Center's intellectual property groups are responsible for defining and administering policies and procedures with regards patents, copyrights, trade secrets, technical data in contracts, grants, cooperative agreements, international agreements, and the distribution of computer software. This includes such functions as patent soliciting; invention reporting; patent application preparation and filing; and conduct of proceedings before the United States Patent and Trademark Office

Inventions and Contributions Board and Award Officers: NTTS supports management of the awards process at the center level, submittal to and processing of the ICB, and payment request. Processing includes

- Space Act Awards
- Invention of the Year
- Software of the Year
- Inventor Payments

Software Release Authorities: According to NPG 2210.1, the Center Releasing Authority will coordinate and oversee efforts to ensure that NASA-funded software is reported, administered and inventoried as any other invention, discovery, improvement, or innovation. TechTracS is used for these purposes.

Program Managers/COTRs: NPD 7500.2 calls for program managers and COTR's to play a significant role in implementing

NASA's technology commercialization policy. They are responsible for assessing their activities for commercial potential; helping to validate new technologies; and providing the overall technology commercialization status of their program. KIMS is the NTTS component used for this activity.

Enterprise/Center Managers: NPD 7500.2 places responsibility for the performance of technology transfer and commercialization in the realm of the Enterprise and Center manager. They are responsible for the overall technology commercialization performance of their programs. Enterprise and Center managers are also heavily involved in outreach and legislative and public affairs. KIMS is the NTTS component used for this purpose.

Chief Engineer/Chief Scientists Office: The technology transfer process directly supports two of NASA's strategic cross-cutting processes. The Provide Aerospace Products and Capabilities (PAPAC) belongs to the Chief Engineer. The Communicate Knowledge (CK) process belongs to the Chief Scientist. Both the Chief Engineer and the Chief Scientist have established specific performance measures expected from the technology transfer process. The Chief Engineer expects NASA's commercial technology partnerships to represent 10-20% of its R&D base. In addition, the Chief Engineer, through its System Management Offices, administers NASA's quarterly program reviews. Technology Commercialization performance is expected to be an integral part of these reviews. The Chief Scientist expects a certain portion of NASA's new technology portfolio to be available to the public. NTTS integrates the patent office's approval process with the technology transfer office's public release process and provides real-time web posting of information on NASA's technologies.

Public and Legislative Affairs Office: Both the public and legislative affairs specialists have the need to appraise the Congress and the Public as to NASA's contributions. Given the ad-hoc nature of these areas, timely and user-friendly access is essential to meeting these users' needs. A geographical interface has been integrated in to NTTS to further facilitate effective delivery of where NASA is having a positive impact across the Nation.

NASA Contractors and Grantees: Over 80% of NASA's annual budget is passed on to a contractor or grantee. NPG 7500.1 establishes that most NASA's contracts and grants have technology transfer responsibilities. Prompt and accurate reporting of new technologies is the immediate challenge at hand. In addition, if awareness of the new technologies from activities is shared then duplication of technological efforts can be avoided and result in

timesavings. eNTRe and TechFinder are the NTTS components addressing these needs.

U.S. Public: NASA's technology assets can benefit virtually every sector of the $8.5 trillion market. These market sectors expect accurate and up to date information on NASA's technology assets to be easily available so as to keep the "finding it" burden low. TechFinder is the NTTS component addressing this need.

3. Network access and connectivity.

The NTTS network utilizes the public network, NISSN, and center virtual private networks (VPN). NASA users within Centers use Center internal networks for connection to local servers and NISSN for connection to the agency systems. NASA users outside centers and the technical support team use identified center VPN's and the public network for connection to NTTS. Users on NASA funded agreements use the public network and secure socket layer.

4. System software & versions and application software running on the system.

Several COTS products are integrated together to respond to the defined requirements. Relational database technology is used due to its logical approach to information storage that matches with a user's perception of information and its controlled redundancy that supports relations of many to one and simplifies data manipulation logic. Two relational database systems are used in NTTS; 4th Dimension (4D) and MS SQL Server. Both systems support industry standards and are ODBC compliant. In addition to the database engine, 4D provides a family of products that are an integral part of the NTTS operational capabilities.

MS SQL Server is used as the database engine for KIMS. A new application was developed to allow real-time data exchange of information between TTS and KIMS; DataPump. The DataPump employs both database engines' compatible features in its processing.

There are several web sites in NTTS that are supported by the database engines in conjunction with two web applications; Cold Fusion and NetLink. [redacted]

NTTS is compatible with both PC's running Windows 98, NT, or 2000 and Macintosh systems running MacOS 9.x or higher. Refer to

NTTS_System_Requirements located on http://ncis.nasa.gov for the most recent recommended machine configurations.

See Attachment B for the current list of software residing on NTTS systems.

See Section 2.2.3 of the Plan for information on the NTTS Application Architecture.

5. Identify the intended user community (number of expected users or customers) and any required interfaces with other systems or applications.

See question 2, Major Uses of System.

6. Operated by Government or contractors. Owned or leased.

NTTS is operated by both government and contractors. NTTS uses both government owned and leased equipment.

7. Hours of Operation (24hr/day-7 days/wk., M-F-7:30am - 4pm,etc)

Core Hours – 8 – 8 M-F. Systems available 24hr/day – 7 days/wk

8. Number of User Accounts

Depending on the user's need, account access varies from a registered user of TechFinder (Public Web Site) to an everyday user of the office productivity tool, TechTracS.

System	Number of Users
TechFinder	29,000
KIMS	70
TechTracS	350
eNTRe	195
NCIS Support	57

F. Processing Environmental and Special Considerations:

1. Critical Processing Periods.

Core Hours – 8 – 8 M-F and nightly (8PM-3AM) metrics routines

2. If the system serves a large number of offsite users, list them.

System	No. Of Users	Type of User
[redacted]	[redacted]	[redacted]

		NASA
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3. Describe any other system/application that interfaces with the system.

NTTS interfaces with several other NASA systems (ONS). The table below provides the system name, expected data flow, and frequency. Further information on what fields are transmitted between the systems can be found in the documentation section of http://ncis.nasa.gov.

Other NASA System	Data Flow	Frequency
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

NTTS also has external interfaces as noted below.

Entity	Data Flow	Frequency
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

G. *Information contacts:*

Project Manager: Dianne L. Cheek Phone 757 864 2761

Mail Stop 211 E-Mail Dianne.L.Cheek@nasa.gov

Line Manager: Richard Buonfigli Phone 757 864 5010
Mail Stop 204 E-Mail Richard.T.Buonfigli@nasa.gov

System Admin: Mike Beddis Phone 757 864 1675
Mail Stop 211 E-Mail M.K.Beddis@larc.nasa.gov

Others: Attachment C – Other Center System Administrators
Mail Stop E-Mail

II. Information Identification

A. Information Processed

As defined by NPG 7500.1, there are eleven functional processes NASA performs in fulfilling its technology transfer mission.

Develop Technology Commercialization Plans for NASA Programs & Projects: Each NASA Enterprise/program manager is responsible for conducting technology assessment and technology and commercialization planning for their activity. Top-level requirements are contained in NPG 7120.5b. Chapter 3 in NPD 7500.2 provides detail guidance for this process. In general, technology commercialization planning begins with determining the overall commercial potential of the technological assets of an existing or planned NASA activity. Technological assets include new technologies, facilities, or expertise. This drives the robustness of the commercialization plan. One key factor to determining "robustness" is establishing what level of technology commercialization requirements will be emphasized in the contracts/grants/agreements supporting that program. The technology commercialization requirements can range from the traditional technology reporting clauses to more comprehensive requirements, such as those in the SBIR/STTR program. NTTS supports this area by

- Providing NASA managers an up to date status of past and current technological assets, partnerships and success stories; and
- Providing a Web-based capability to provide and update a

commercial potential assessment of existing contract/grant/agreement task areas.

Harvest & Process New Technology Reports: Promptly identifying and reporting new technologies and innovations is one of the most critical activities within the overall technology transfer process. Improving NASA and NASA' s contractor researchers', scientists', and engineers' awareness of this responsibility is a sizeable challenge. Once reported, the new technology must be processed to determine

- If intellectual property protection is merited,
- What is the technology's commercial potential,
- Should a Technology Opportunity Sheet (TOPS) be prepared,
- Should the technology be published in Tech Briefs, and
- Should the technology be released to the public?

NTTS supports all of the functions above for new technology reporting and processing.

Intellectual Property Management: Once it is determined that intellectual property protection is merited—a very technical and legal process is applied. A detailed description of this process and how NTTS supports the process can be found in the Patent Office Procedures at http://ncis.nasa.gov.

Space Act Awards Management and Payment: The Space Act Award recognizes a specific scientific or technical innovation that is of significant value to aeronautical or space activities. The award is an individual personal monetary award along with a certificate signed by either the Chair of the Inventions and Contributions Board (ICB) who is the NASA Chief Engineer, or by the Administrator. One purpose of the award incentive is to recognize and award the contribution of such rights to the government for non-contracted contributions. Another purpose is to incentivize the disclosure of the technologies in a timely manner to maximize the benefit for NASA and society. For further information on the awards process see http://icb.nasa.gov.
NTTS provides NASA the capability to submit, process, manage, and pay space act awards. Innovator certificates are also generated from NTTS.

Software Release Management: NPG 2210.1 states that "New software, or any preexisting software modified by more than a merely trivial variation or improvement thereof, determined by the Center Releasing Authority to be subject to NPD 2210.1 shall be reported. The report shall at least include information similar to that disclosed in NASA Form 1679 "Disclosure of and New Technology

(Including Software)". In addition, the report must:

- Identify the parties involved in the software's creation and development;
- Indicate where the software is an improvement or innovation;
- Identify any proprietary source code or object code that is incorporated into the software and is owned by a non-Federal entity;
- Indicate whether a license has been obtained in situations where source code or object code owned by a non-Federal entity has been incorporated into the software; and,
- Indicate whether any known export restrictions apply to the software.

NTTS provides tracking and reporting of software release partnerships and provides the agency with a software catalog of all recorded software for NASA and all publicly available software to the U.S. Public.

New Business Development: Identifying potential technology transfer partners is perhaps the most challenging part of the overall technology transfer and commercialization process. As mentioned earlier, NASA's technological assets are so diverse that they apply to virtually every single market area in the nations' $8.5 trillion economy. With respect to outreach, it is essential that NASA be able to show the US citizenry how they benefit from NASA's technological assets. NTTS supports the new business development and outreach function by

- Offering a single-integrated repository of all NASA technological assets that may have commercial potential,
- Providing an automatic notification service when new technological assets are available,
- Identifying potential leads, and
- Providing the capability to process and track these leads.

Manage Agreements & Partnerships: NASA has established a goal that its annual investment in commercial technology partnerships should equal 10-20% of its investment in its R&D base. This goal is not a tax or a set-aside. It does not aim at doing 10-20% more work by adding industry R&D objectives. Instead, it strives to achieve at least 10-20% of NASA's mission and technology objectives in a new and different way through commercial partnerships. Technology commercialization partnerships can be implemented using a broad set of mechanisms as follows:

- Cooperative Agreements
- Space Act Agreements
- SBIR/STTR Program
- Cost-Sharing Contracts
- Waivers and Elections
- Licenses
- Data, Information, and Research Provided for Potential Commercial Use

ı the partnering function, NTTS captures and tracks all partnership type: ıd the associated investment by both NASA and its partners. In the censing function, NTTS provides in-depth tracking for royalty istributions, payments and license milestones and reports. Using the :atures of the relational database, NTTS automatically builds the list of)yalty recipients based on the technologies related to the license. As ayments are made, NTTS, using NASA's royalty distribution algorithm, ılculates royalties for each recipient.

Develop & Manage Success Stories: Technology transfer and commercialization success stories are defined as those commercial technology partnerships which have actually achieved an "acknowledged use or application" of the related NASA technological asset. Each NASA activity should systematically track and follow-up on its commercial technology partnerships to determine if that partnership has produced any success stories. In addition each Center's TTO is responsible for determining which success stories to release to the public. NTTS currently supports the identification, development and release of success stories.

Integrate With Related Knowledge Assets: NASA activities created numerous types of knowledge associated with its technological assets, which can benefit the technology commercialization mission. This includes

- Descriptions of technology projects and tasks,
- Descriptions of facilities,
- Scientific and technical information (STI),
- Integrated Financial Management
- NASA Payroll and Personnel
- SBIR Systems

Integrating this information into a single inventory creates significant value for potential partners considering some type of technology commercialization partnership with NASA. NTTS also provides a significant tool for internal NASA sharing of these assets. NTTS provides the integrated warehouse for these assets.

Training and Education: As stated in section 8 of NPG 7500.1, "NPD 7500.2 recognizes NASA's responsibility to "....provide commercial technology training to employees involved in commercialization processes (e.g., program/project engineers, commercialization specialists, procurement officials, etc.)" to enable them to fulfill new job requirements and to enable the Agency to achieve its (technology commercialization) goals." Insuring that the appropriate NASA staff is receiving the right technology transfer training at the right time is a significant challenge.
NTTS provides the training program the capability to identify and communicate with NASA staff (COTR's, Program Managers, Innovators, etc.) associated with NASA activities having commercial potential.

Management Status and Metrics: Re-engineering the NASA technology commercialization program over the past several years has created new responsibilities. Implementing these new responsibilities effectively requires significant interaction between the TTO's and the NASA program managers at each center. Technology commercialization metrics, indicating the status of technology commercialization, are now becoming an integral component of each programs' quarterly status review. It is essential that all levels of NASA management have a standard and consistent tool that provides metrics and the status of technology commercialization across NASA enterprises, programs and centers. The tool supports and enables effective communication and interaction between TTO staff and NASA program managers. NTTS provides each NASA Enterprise, Program and Center real time status information of the following technology commercialization functions:

- Commercial Technology Planning and Assessment
- New technology reporting and processing
- Intellectual Property processing
- Awards Management
- Marketing and Outreach
- Partnership Management
- Success Stories
- Knowledge Asset Inventorying

Depending on the user type and system used, information is protected by a combination of user accounts and passwords, secure socket layer transmission, user views and table access permissions. A central approach for user account management is being implemented with a target completion date of January 2004. See http://ncis.nasa.gov, under documentation, topic system for user

account management process.

B. Category

1. [] Mission (MSN)

2. [x] Business and Restricted Technology (BRT)

3. [] Scientific, Engineering, and Research (SER)

4. [] Administrative (ADM)

5. [] Public Access (PUB)

C. Applicable laws, policies and guidance affecting the information:

- **Public Law 100-235**, Computer Security Act of 1987
- **OMB Circular A-130**, Management of Federal Information Resources
- **NPD 2800.1**, NASA Policy Directive, Managing Information Security
- **NPD 2810.1**, NASA Policy Directive, Security of Information Technology
- **NPG 2810.1**, NASA Procedures and Guidance, Security of Information Technology
- **LAPD 2810.1**, Langley Policy Directive, Appropriate Use of NASA Langley research Center (LaRC) Information Technology Resources
- **LAPD 2810.2**, Langley Policy Directive, Minimum Information Technology Security Requirements for LaRCNET
- **LMS-CP-5517**, Conducting a Risk Assessment and Preparing the Information Technology (IT) Security Plan
- **LMS-CP-5518**, Granting Foreign Nationals and Foreign Representatives Computer Accounts
- **LMS-CP-5519**, Requesting Access to Information Technology Resources
- **LMS-CP-5521**, Managing and Processing LaRCNET Connection Requests
- **LMS-CP-5549**, Responding to Reports of Information Technology Security Incidents and Inappropriate Activity
- **LMS-CP-5550**, Cleaning and Excess of Computer Hard Drives
- **LMS-CP-5630**, Requesting, Modifying, or Restoring a Public Key Infrastructure (PKI) Certificate
- **LMS-CP-5631**, Suspending or Revoking a Public Key Infrastructure (PKI) Certificate
- **LMS-CP-5696**, Obtaining Network Services Through the Center Firewall
- **LMS-CP-5915**, Obtaining a Two-Factor Authentication Credentials and a Virtual Private Network (VPN) Account

Table 1 below provides a list of Laws and NASA policies associated with NTTS as noted in the NTTS Project Plan.

Table 1. Technology Transfer Laws and Policies

Identifier	Title
NPD 1000.1B	NASA Strategic Plan
NPG 1000.2	NASA Strategic Management Handbook
NPD 1050.1F	Authority to Enter Into a Space Act
NPD 1050.1	Space Act Agreements
NPD 1080.1	Generate Knowledge (GK) Process
NPD 1440.6	NASA Records Management
NPD 2091.1	Government Employee-Created Software
NPD/G 2092.1	Royalties And Other Payments Received By NASA From The Licensing Of Patents And Patent Applications
NPD 2110.1E	Foreign Access to NASA Technology Transfer Material
NPD 2190.1	NASA Export Control Program
NPG 2200.2A	Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information (STI)
NPD/G 2210.1A	External Release of NASA Software
NPD 2220.5E	Management of NASA Scientific and Technical Information (STI)
NPD/G 2800.1	Managing Information Technology
NPD/G 2810.1	Security of Information Technology
NPD 2820.1	NASA Software Policies
NPG 3451.1	NASA Awards and Recognition Program
NPD 7120.4B	Program/Project Management
NPG 7120.5B	NASA Program and Project Management Processes and Requirements
NPD 7500.2	NASA Technology Commercialization Policy
NPG 7500.1	NASA Technology Commercialization Process
Public Law 85-568	National Aeronautics and Space Act of 1958
Public Law 96-480	Stevenson-Wydler Technology Innovation Act of 1980
Public Law 96-517	Bayh-Dole Act of 1980
Public Law 99-502	Federal Technology Transfer Act of 1986
Public Law 101-189	National Competitiveness Technology Transfer Act of 1989
P.L. 102-245	American Technology Preeminence Act of 1991
Public Law 104-113	National Technology Transfer and Advancement Act of 1995
Public Law 106-404	Technology Transfer Commercialization Act of 2000
FAR	Government Agencies must monitor and enforce small entity contractor's reporting and use of inventions.
FAR	To protect the Government's interest and the public's investment, Agencies shall maintain appropriate follow-up procedures.
FAR	NASA contracts with large businesses require prompt reporting of inventions, discoveries and innovations.
14 CFR 1240	Inventions And Contributions

D. Impact of loss of system and/or data:

System:

Depending on which system fails, system failure would result in loss of access to key information used in NASA's Technology Transfer, Awards Payment and Patent processes. [redacted]

Data:

[redacted]

E. System Value

Hardware: $120K
Software: $4.5M

III. Information Sharing

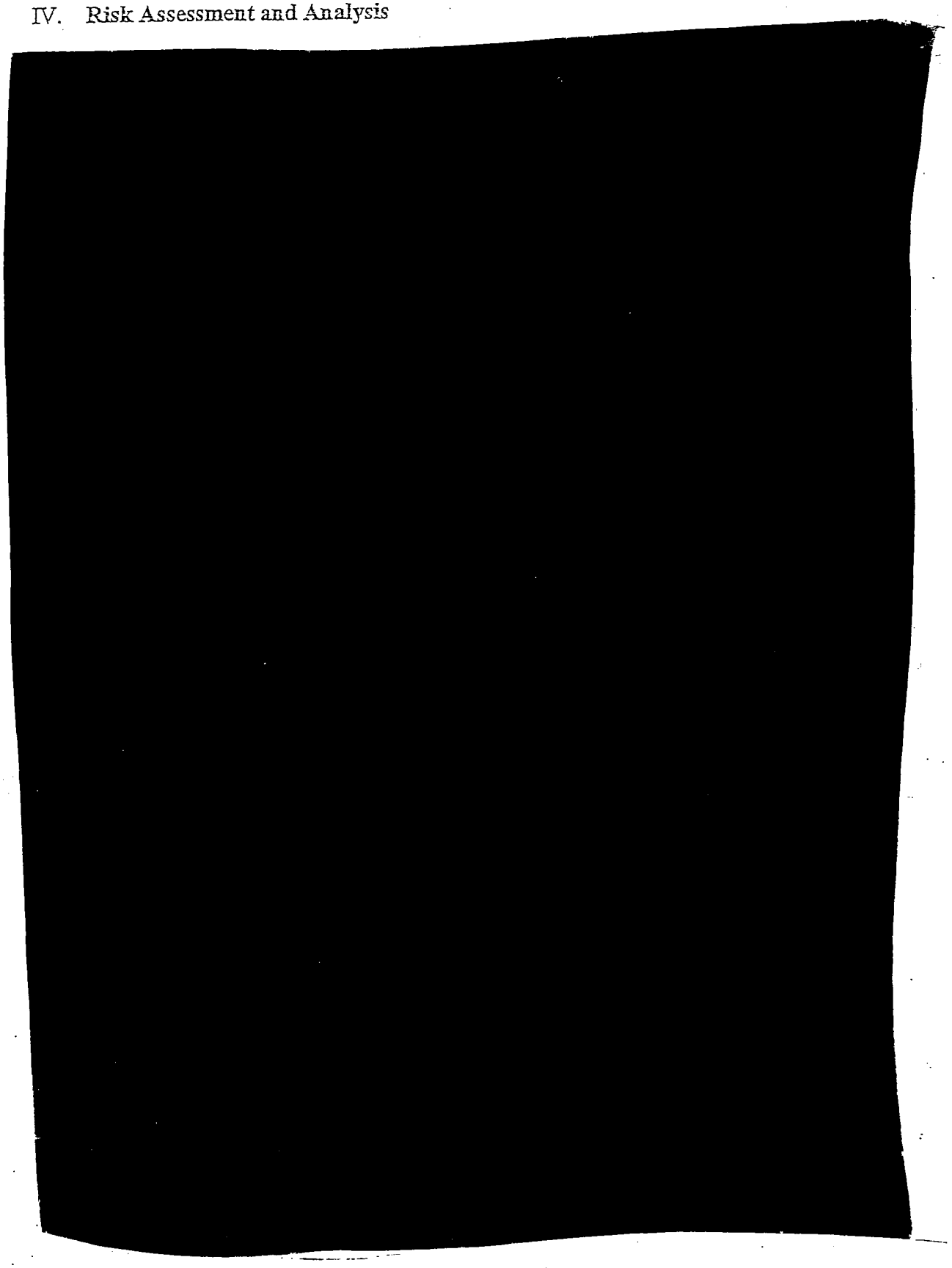
External Customers:

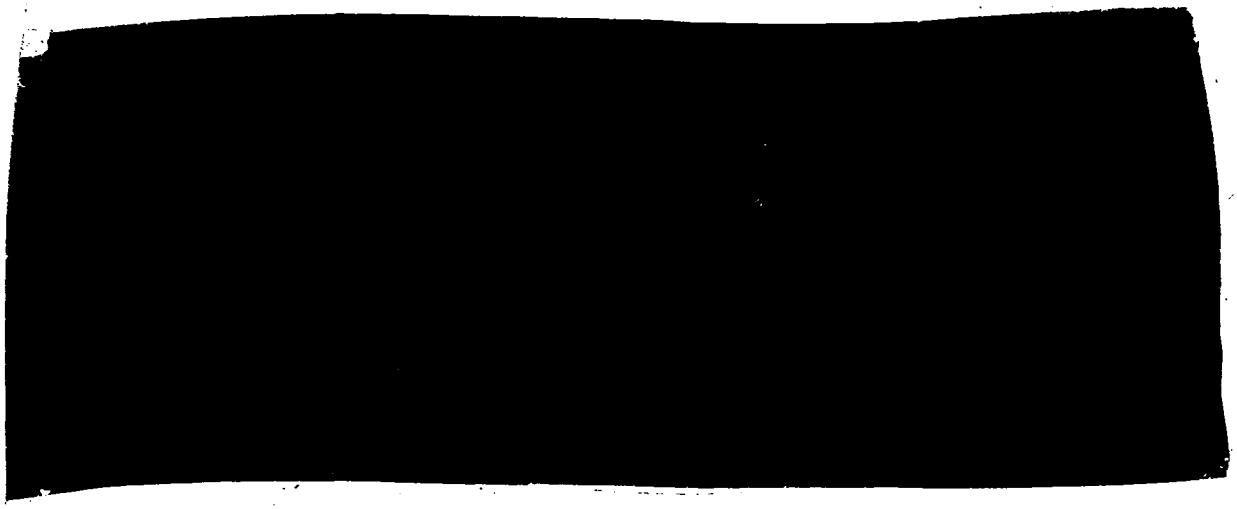
See Section E, Question 2 and Section F, Question 3 of this document.

Intended recipients, controls used, and applicable policies:

Recipients of information maintained in NTTS are noted in section E, question 2 of this document. Controls used within the NTTS Project are defined in the NTTS Project Plan, in the Technical Support Statement of work, and the defined processes maintained on http://ncis.nasa.gov.

IV. Risk Assessment and Analysis





Operating System Integrity

All NTTS systems comply fully with all applicable baseline requirements of this section, with the exception of completion and implementation of policies and procedures to standardize the hardware and software of the servers and auto-agents across the program. This will ensure configuration control, timely updates of critical patches, and mitigation of vulnerabilities identified during system scans. Establishment and implementation of these policies/procedures is anticipated to be completed by March 2004.

User ID Management

All NTTS systems comply fully with all applicable baseline requirements of this section, with the exception of centralized account management. The process to centralize account management is anticipated to be completed by March 2004.

Passwords

All NTTS systems comply fully with all applicable baseline requirements of this section, with the exception of two internal web sites using group passwords to restrict general public access. These sites will be migrated to the http://kims.nasa.gov system and will then use individual account access.

Local Access Control for Multi-user Systems

All NTTS systems comply fully with all applicable baseline requirements of this section.

Information Management and Protection for Multi-user Computers

All NTTS systems comply fully with all applicable baseline requirements of this section.

Commercial Off-the-Shelf (COTS) Software

All NTTS systems comply fully with all applicable baseline requirements of this section.

Public Domain Software

All NTTS systems comply fully with all applicable baseline requirements of this section.

Customer/Contractor Supplied Software

All NTTS systems comply fully with all applicable baseline requirements of this section.

Encryption of Unclassified Data

All NTTS systems comply fully with all applicable baseline requirements of this section, with the exception of the 4D systems. Steps to move the system to 4D's use of SSL or to move to another platform providing SSL will be implemented as defined in the NTTS Project Plan.

Centralized Operations for Multi-user Systems, Servers and Mainframes

All NTTS systems comply fully with all applicable baseline requirements of this section.

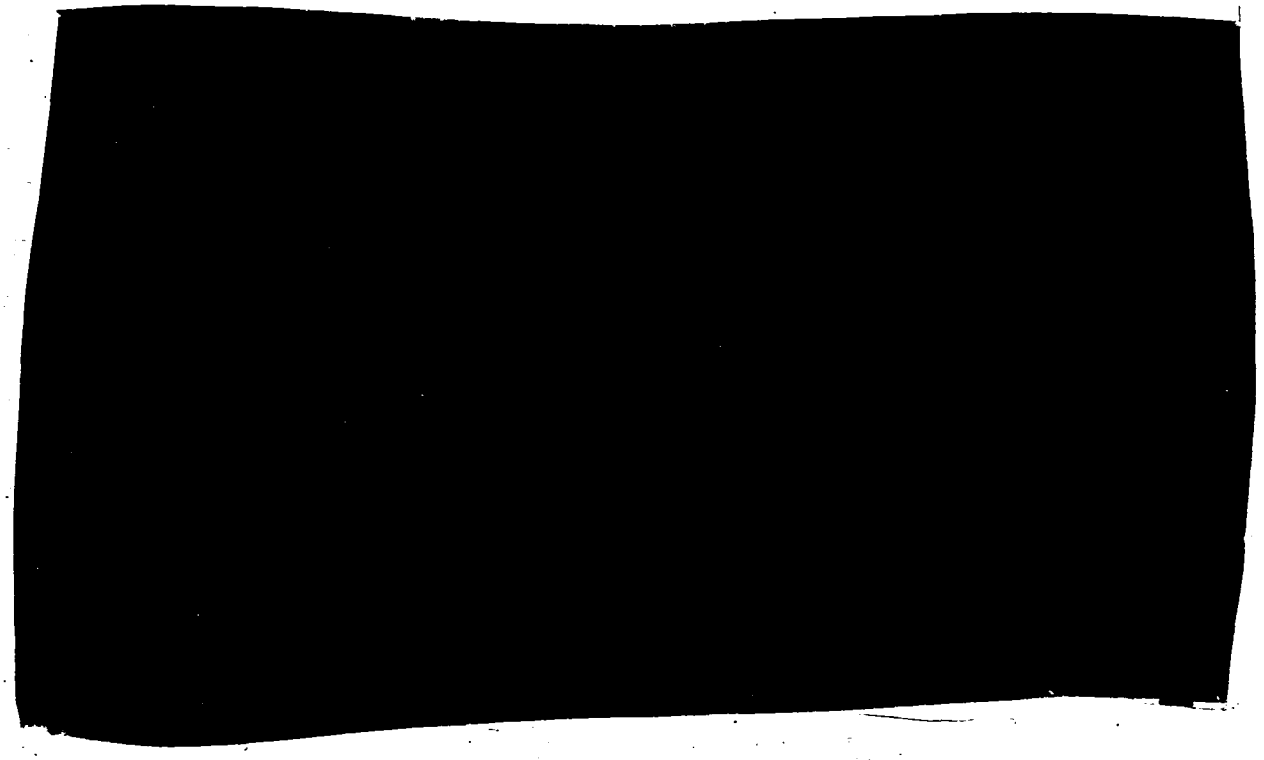
Workstation Security Requirements

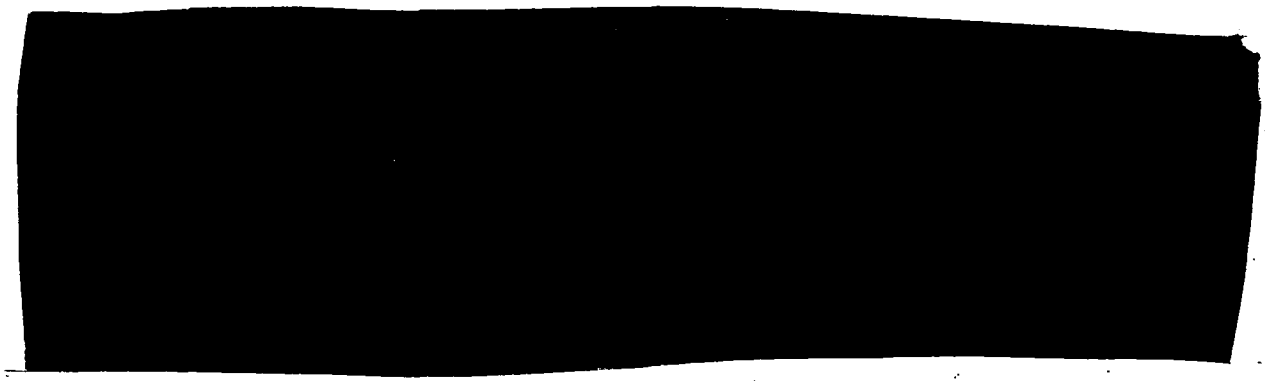
All NTTS systems comply fully with all applicable baseline requirements of this section.

Network Multi-user System, Server and Mainframe Requirements

All NTTS systems comply fully with all applicable baseline requirements of this section.

V. Technical Controls:





VI. Public Access Controls:

See Section E, question 2 of this document, Section 2.2.3 of the NTTS Project Plan and User Account Processing located at http://ncis.nasa.gov.

VII. Rules of the System:

NTTS uses a User Account Agreement, predetermined user profiles, and Center approval to define system access and use. See Attachment E for the NTTS User account process.

Hardware – NTTS systems are used only as defined in the NTTS Project Plan.

Passwords – The NTTS user account guidelines request users to follow NPG 2810's guidance on password selection. Additionally NTTS prompts users for password renewal every 90 days. System Administration passwords are also renewed every 90 days or upon support personnel termination.

Imported software – No imported or unauthorized software resides on NTTS systems.

Back-ups – See section II D of this document for information on the NTTS backup strategy.

Information – NTTS contains sensitive and proprietary information. NTTS has user screen warnings to assist users to know when they are viewing or printing sensitive/proprietary information. Additionally user accounts are configured to allow users access to only the information their job duties have a requirement for.

Anti-virus Software – NTTS supports the Langley standard for anti-virus software and usage.

Log-off – Users are encouraged to logoff NTTS when leaving their workstation.

Security Violations – All NTTS IT security incidents are reported to the Langley ITSM. (Section 3.d of LAPD 2810.2)

A. Process for obtaining an account

NTTS User Account Request instructions and forms are located on the home page of http://ncis.nasa.gov.

B. Process for accessing the system from home or while on travel

Users may access NTTS while off-Center.

C. Kinds of information that may be stored on the system and the authorized uses to which that information may be put

NTTS contains sensitive and proprietary data in support of the processes defined in Section II, A of this document.

D. User privileges and limitations

Foreign Nationals (Civil Servant or under Contract) are permitted to access to NTTS as defined in the NTTS User Account Process.

E. User authentication

[redacted]

F. Process for restoring service from system crashes or maintenance

See Section II, D of this document.

G. Process for escorting personnel who do not have access to the system.
Personnel without access to the system must request information through an approved system user.

H. Consequences for failure to follow the rules.

Center policy (LAPD 2810.1) states that loss of network access is possible. The NASA CIO warning banner is required on all computers by LAPD 2810.2.

WARNING!
This is a U.S. Government computer. This system is for the use of authorized users only. By accessing and using the computer system you are consenting to system monitoring, including the monitoring of keystrokes. Unauthorized use of, or access to, this computer system may subject you to disciplinary action and criminal prosecution.

Personnel actions are left to the discretion of the supervisor and Office of Human Resources or to the contract manager for non-civil service employees.

I. IT Security in the Life Cycle of NTTS

The NTTS systems are maintained by dedicated system administrator support under ODIN. Each new system is scanned for known vulnerabilities prior to being placed in service and periodically throughout the year, with the results being provided to the CSO for distribution to the various system administrators for corrective action. The NTTS system administrator requests a scan after applying a patch or upgrading the operating system. Additionally the system administrators receive frequent bulletins about new vulnerabilities. All high-risk vulnerabilities discovered as a result of bulletins are corrected as quickly as possible and coordinated with the Larc IT security office.
The Langley ITSM must review any new services under consideration for being hosted on various components of NTTS to ensure that new vulnerabilities are not being added to LaRCNET.
At the end of life or transfer of the computer, the media is erased in accordance with LMS-CP-5550.

VIII. Personnel Screening:

Privileged Users:

All contractor system administrators have at least a National Agency Check with local law and credit check (NACLC) investigation and to have been granted privileged access to the system.

Limited Privileged Users:

There are no limited privileged users in the NTTS system.

IX. Training:

NASA and Center policies mandate annual IT Security awareness training for all employees, both civil service and contractor. Additionally all managers and system administrators (privileged users) have mandatory specialized training that is available through the SOLAR training web site, which is hosted at Marshall Space Flight Center. SOLAR also hosts training in the use of the NASA PKI. LAPD 2810.1 and 2810.2 describe appropriate use (including password policy) and minimal IT security requirements for a computer to be connected to LaRCNET.

1. Rules of the System.	[x Yes	[] No
2. Responsibilities described in Chapter 2, NPG 2810.1	[x Yes	[] No
3. How to detect and respond to suspected IT security incidents.	[x] Yes	[] No

4. How to get help in using the system or its security features. [x] Yes [] No

5. Center policies, procedures, and guidelines. [x] Yes [] No

X. Contingency Planning:

Does an up to date contingency plan exist? If yes attach a copy, if not write one before submitting the plan. [X] Yes [] No

The NTTS Backup plan (See Section II D of this document) is also the contingency plan with the addition of location. The NTTS system requires no special networking or plant configuration that does not exist at any Center or standard office space.

XI. Incident Response:

LMS-CP-5549 is used to report any suspected ITS incident or unauthorized activity. Do NOT reboot or turn off any system suspected of having any unauthorized access, since valuable evidence may be destroyed. The following individuals or organizations must be notified by telephone or in person to investigate any suspected incident:

- Computer Security Hotline (757) 864-4200
- Langley ITSM (757) 864-5786
- System administrator of the affected computer (757) 864-1675 or 7777
- Line manager of the affected computer (757) 864-5010
- Project Manager (757) 864-2761
- Due to the broad user base, the Project Manager will contact data owners as needed.

The preferred method of notification is to call the Computer Security Hotline. It will ring up to eight times. In almost all cases a person will answer during normal business hours (between 7:30 AM to 5:00 PM, Monday through Friday, excluding holidays). At other times, leave a message. Try again in ten to fifteen minutes if there was no answer during normal business hours.

Unless secure (encrypted) e-mail is available do NOT use e-mail to notify individuals or organizations about suspected ITS incidents, except to question the Langley ITSM about virus warnings and hoaxes. The Langley ITSM has the responsibility to notify the Office of Inspector General (OIG), the Langley Chief Information Officer (CIO), and the Langley Security Office about ITS incidents.

If during the after-hours period, it is impossible to contact any ITS personnel or the system administrator to verify any suspected unauthorized access, remove the network connection from the computer but leave the computer powered up. Then leave a phone

message for ITS personnel to contact someone as soon as possible but no later than the start of the next business day.

The system administrator of the affected system is expected to cooperate with Langley ITS personnel to verify an incident or to take corrective actions to reduce the risk of any future compromise. If an incident is verified, the OIG might request to monitor activity for a period of time. The Langley ITSM may deny this request if the potential risk is deemed to be too great, after consulting with the data owner and/or line manager with oversight responsibility. If the Langley ITSM approves the OIG request for monitoring, the status of the monitoring will be reviewed periodically (at least weekly) to determine if it should be continued or terminated.

XII. System Interconnection:

The NTTS is connected via LaRCNET, as described in Sections V and VI of this plan. See Sections 14.2 and 14.3 of the NTTS Project plan for connections to other systems.

XIII. Review of Security Controls:

The system administrators and computer security official (CSO) perform an annual self-assessment and report any major changes, to include new appendices for the plan to the Langley ITSM. The system administrator and CSO receive security alerts and bulletins distributed by Langley IT security and incorporates new security patches as soon as it is operationally feasible. The system administrators and CSO also receive the results of the periodic vulnerability scans and takes appropriate corrective action or documents in the annual self assessment that the line manager is willing to assume the risk posed by a particular vulnerability for operational considerations.
The IT Security Manager reviews the plan independently after it has been submitted for authorization to process approval. Any major system vulnerabilities must be corrected immediately before the ITSM signs the plan. A more comprehensive analysis of the residual risk is provided by the ITS staff after a comprehensive review, which might include spot checks for compliance with the plan.

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NASA Technology Transfer Systems
Project Plan

1.0 Project Introduction

NASA is a large ($14B) complex (65 programs implemented at 10 centers) scientific research and development organization with a vast set of technological assets. These technological assets have potential application to virtually every commercial market that exists. That commercial market is estimated at over $8.5 trillion[1]. NASA's Strategic Plan 2000 directed that NASA would proactively conduct technology transfer activities. Under this directive, the primary organizational "infrastructure" for turning this commercial potential into reality is provided by NASA's Technology Transfer Offices (TTO). NASA's Technology Transfer Systems (NTTS) are the primary information technology (IT) "backbone" of this organizational infrastructure.

NASA's Strategic Plan 2003 has revised NASA's technology transfer directive. Activities have been initiated to evaluate the realignment and re-vectoring of NASA's technology transfer activities and organizational components. However, the NTTS will retain its function as the primary IT backbone as the organizational infrastructure evolves to accommodate the realignment and re-vectoring. Additionally, NASA has established the Enterprise Architecture and standard Agency IT security policies. The Enterprise Architecture is a tool that links the business mission and strategy of an organization to its IT strategy and provides guidance on IT capital investment and planning processes to help an organization to optimize the return on its IT investments. Revised IT security policies have established standard IT security plans for identification and mitigation of IT security risks and the creation of disaster recovery planning.

Notwithstanding the current realignment program activities, there remains "core activities/functions" that are ongoing and which NTTS must support on a day-to-day basis. In order to accommodate the demands of this dynamic and fluid environment and to incorporate Agency IT policies, the NTTS Project will pursue activities along three thrusts:

1. Operations and Support of NTTS
2. Implement Sustaining System Management and Architecture
3. Enable/Accommodate Evolving Functionality

1.1 Sponsor Organizations:
Code R – Office of Aerospace Technology

1.2 Program Commitment Agreement (IBPD):
29B-ITTP-IBPD-FY2004 (Attachment 1)

1.3 History of Project:

[1] http://www.nsf.gov/sbe/srs/seind00/

The importance of technology transfer within NASA can be traced back to its establishing space act; Section 305 of the National Aeronautics and Space Act of 1958 (42 U.S.C. Sec. 2457), as amended, states that inventions, discoveries, improvements, and innovations made in the performance of any work there under, whether patentable or not, should be promptly reported to NASA. The objective of this requirement is to protect the Government's interest and to provide the widest practicable and appropriate dissemination, early utilization, expeditious development, and continued availability for the general public. The Agenda for Change, dated July 1994, was the Agency's blueprint for elevating the commercial technology mission to a fundamental NASA mission, important as any in the Agency. Each NASA program office and Center is responsible for incorporating new commercial technology business practices into their program management system and ensuring that their use is understood. The reporting of new technologies by NASA contractors during contract performance is a basic and vital element to achieving the goals of the Agenda for Change. NASA's Strategic Plan 2000 stated NASA mission was to advance and communicate scientific knowledge and also to transfer advanced aeronautics and space technologies. The technology transfer mission was also identified as part of the crosscutting processes of the Provide Aerospace Products and Capabilities and Communicate Knowledge. NPD 7120.4 further emphasized commercial technology planning within NASA's management system for programs and projects. To better solidify and clarify the Agency's technology transfer and commercialization activities the Agency issued, in March 2000, NPD 7500.2, NASA Technology Commercialization policy. NPD 7500.2 established NASA TechTracS (TTS) as the agency wide technology transfer and commercialization information system and designated the Associate Administrator for the Office of Aero-Space Technology (OAT) responsible for developing and maintaining TTS. In December 2001, NPG 7500.1 established NASA's Technology Commercialization process. In addition to the noted polices that have directly resulted in the creation of the NASA Technology Transfer Systems (NTTS), there are numerous laws and congressional findings (Table 1), Federal Regulations (Table 2), and other NASA policies (Table 3) which are supported in some degree by NTTS.

Table 1 – Technology Transfer Legislation and Congressional Findings

Major Legislation:
National Aeronautics and Space Act of 1958 (Public Law 85-568)
Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96-480)
Bayh-Dole Act of 1980 (Public Law 96-517)
Federal Technology Transfer Act of 1986 (Public Law 99-502)
National Competitiveness Technology Transfer Act of 1989 (Public Law 101-189)
American Technology Preeminence Act of 1991 (P.L. 102-245)
National Technology Transfer and Advancement Act of 1995 (Public Law 104-113)
Technology Transfer Commercialization Act of 2000 (Public Law 106-404)
Congressional Findings (15 U.S.C. 3701):
While many new discoveries and advances in science occur in Federal laboratories, their application to commercial and useful public purposes depends largely upon private industry.
Federal technology transfer activities have strengthened ability of US industry to compete in global marketplace and have improved quality of life for the American people. (Section 2 of P.L. 106-404)
There is a need for a strong national policy supporting domestic technology transfer and utilization of the S&T resources of the Federal Government.
There is a need to provide means for making federally funded R&D accessible and for providing adequate

personnel and funding support to those means.

Table 2 – Federal Regulations

Acquisition for Small Entity Contractors:	
Government Agencies must monitor and enforce contractor's reporting and use of inventions to…	• ensure expeditious availability to the public
	• enable the Government to defend itself against claims and suits for patent infringement
	• avoid unnecessary payment of royalties
To protect the Government's interest and the public's investment, Agencies shall maintain appropriate follow-up procedures to…	• ensure that subject inventions are identified and disclosed
	• ensure that inventions are elected or that the Government consider obtaining title
	• when appropriate, ensure that patent applications are filed, and that the Government's rights therein are established and protected
Acquisition for Large Businesses:	
NASA contracts with large businesses require prompt reporting of inventions, discoveries and innovations to…	• protect the Government's interest
	• provide widest practicable and appropriate dissemination, early utilization, expeditious development, and continued availability for the benefit of the U.S. industry and general public
12CFR1402	Inventions and Contributions

Table 3 - NASA Policies Supported by NASA Technology Transfer Systems

Document Identifier	Title
NPD 1000.1B	NASA Strategic Plan
NPG 1000.2	NASA Strategic Management Handbook
NPD 1050.1F	Authority to Enter Into a Space Act
NPD 1050.1	Space Act Agreements
NPD 1080.1	Generate Knowledge (GK) Process
NPD 1440.6	NASA Records Management
NPD 2091.1	Government Employee-Created Software
NPD/G 2092.1	Royalties And Other Payments Received By NASA From The Licensing Of Patents And Patent Applications
NPD 2110.1E	Foreign Access to NASA Technology Transfer Material
NPD 2190.1	NASA Export Control Program
NPG 2200.2A	Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information (STI)
NPD/G 2210.1A	External Release of NASA Software
NPD 2220.5E	Management of NASA Scientific and Technical Information (STI)
NPD/G 2800.1	Managing Information Technology
NPD/G 2810.1	Security of Information Technology
NPD 2820.1	NASA Software Policies
NPG 3451.1	NASA Awards and Recognition Program
NPD 7120.4B	Program/Project Management
NPG 7120.5B	NASA Program and Project Management Processes and Requirements

NPD 7500.2	NASA Technology Commercialization Policy
NPG 7500.1	NASA Technology Commercialization Process

NTTS supports the entire technology transfer process and is the Agency's one system with all of its technological assets. NTTS is a closely integrated set of information systems. The four major components comprising NTTS are as follows and are shown in Figure 1.

- **eNTRe**—the electronic new technology reporting system provides a tool for electronically capturing and submitting new technology reports.
- **TechTracS (TTS)**—this center-based component of NTTS provides the day-to-day core backbone of the NTTS while providing each center a major productivity tool for accomplishing its technology transfer activities;
- **KIMS**—the **K**nowledge **I**ntegration and **M**anagement **S**ystem provides NASA enterprise, center and program managers up to date information on the technology transfer status of their activities.
- **TechFinder**—this is the public technology transfer gateway; providing access to NASA's technology assets.

Figure 1 also illustrates that the NTTS is not a stand-alone, isolated system but rather there is integration of data from other existing NASA data repositories where such data is directly applicable to and supportive of NASA's overall technology transfer mission. Such an approach leverages other key NASA information assets while facilitating a single interface point for the external commercial technology community; as well as a key asset for NASA internal scientists, researchers, engineers and technologists. Additional information on each NTTS component is provided in Section 2.2.3 – Application Architecture and on system interfaces in Section 14 – Project Dependencies.

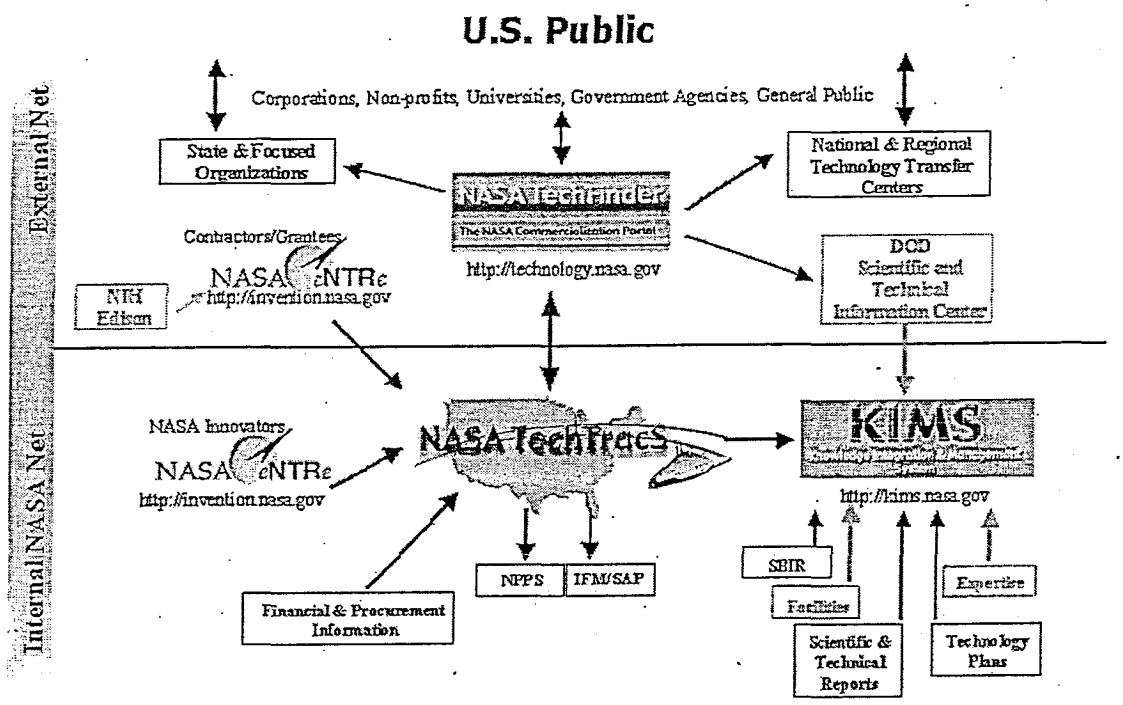


Figure 1- NASA Technology Transfer System

Table 4 below provides a timeline of the key events guiding NTTS over the past 10 years. Together these events have guided and shaped the NASA requirements, justification, basis and overall support for NTTS, as well as, providing the strategic direction for its continuing evolution.

Table 4. NTTS Timeline

December 1992	- Agency Technology Transfer Team, Chair - Jerry Creedon, reports on Technology Transfer within NASA
July 1994	- Agenda for Change Issued. Two Agenda commitments are NTTS and Commercial Potential Assessment Inventory.
June 1995	- Associate Administrator, General Dailey, issues letter to NASA Sr. Management on the creation of the Technology Inventory and the Commercial Potential Assessment Inventory and directs NTTS as the key system.
August 1995	- NASA TechTracS Agency-wide data set and Commercial Potential Assessment Inventory web site (http://cpa.nasa.gov) are available.
October 1995	- NASA Administrator, Dan Goldin, incorporates demonstration of NASA TechTracS into his keynote speech at Tech 2000 series and directs a public web site to be available by January.
January 1996	- Public web site, TechFinder http://technology.nasa.gov, is available.
February 1996	- First Commercial Potential Assessment Inventory is performed.
September 1996	- Inspector General's Report on New Technology Reporting is released.

October 1996	- NASA Sr. Management is briefed on Inventory results and NASA TechTracS.
January 1997	- NASA TechTracS Agency Subteam is formed.
October 1997	- Technical support for NASA TechTracS is moved to a contract.
November 1997	- Code R Associate Administrator, Robert Whitehead, establishes NASA TechTracS as the "Agency-wide commercial technology management system".
April 1998	- Acting Deputy Administrator, General Dailey, issues letter to NASA Sr. Management concerning New Technology Reporting and confirms Code R Associate Administrator's responsibility to provide the Agency with quarterly Commercial Technology Inventory Reports and metrics.
April 1998	- NPG 7120.5A is issued.
December 1998	- NASA Technology Plan issued.
February 1999	- Baseline NASA TechTracS system is complete.
September 1999	- Program / Project Manager Interface (KIMS) to NASA TechTracS is introduced at NCTMT meeting.
February 2000	- Automated metrics reporting is completed.
March 2000	- NPD 7500.2 issued.
September 2000	- *eNTRe* (http://invention.nasa.gov) is deployed. - Technology Transfer of NASA TechTracS to National Institutes of Health.
October 2000	- KIMS (http://kims.nasa.gov) is operational.
December 2001	- NPG 7500.2 issued.
May 2002	- NASA FAR Supplement includes eNTRe reference
January 2003	- Awards Payment System is operational.

The FY 2004 budget terminates the Commercial Technology program and establishes the Innovative Technology Transfer Partnerships (ITTP) Theme. ITTP consists of the Technology Transfer Activity and the SBIR/STTR programs. Under this theme NASA will continue to support necessary efforts to document and license technologies and make them available to the private sector as legislatively mandated, and prudently manage NASA's intellectual property. NASA will continue to advise entrepreneurs of our technology offerings available for licensing, as well as, solicit partnerships to meet Enterprise technology needs through the use of the Web.

The budget provides for a new approach, known as the Enterprise Engine, to partner with venture capital firms and U.S. industry for the development of technologies that can directly contribute to the agency's core research activities, while benefiting private industry. The Technology Transfer Activity contributes to support the Enterprise mission needs, as well as the national economic strength through innovative technology partnerships with non-aerospace industries. With the FY 2004 budget request, the SBIR/STTR programs and the NTTC will continue, and NASA will provide for technolgy transfer regulatory requirements, and the Enterprise Engine.

1.4 Project Approach:

As described in the introduction, the NTTS project has three thrusts;

1. Operations and Support of NTTS,
2. Implement Sustaining System Management and Architecture, and
3. Enable/Accommodate Evolving Functionality.

Each thrust has requirements specific to the identified areas. Additionally the interrelations between the thrust areas are equally important and are addressed.

1.4.1 Thrust 1 - Operations and Support of NTTS

Continue to operate and support core backbone NTTS network that is used and will continue to be used to support necessary efforts to document and license technologies and make them available to the private sector as legislatively mandated, to prudently manage NASA's intellectual property, and to use the web to provide technology offerings available for licensing and to solicit partnerships.

1.4.2 Thrust 2 - Implement Sustaining System Management and Architecture

The current NTTS configuration and architecture is one that has resulted from an evolutionary path reflective of the growth of NASA's Technology Transfer Program. To support the program's rapid evolution, NTTS development employed a prototyping and refinement development cycle. Formal requirements analysis and implementation processes have been used in the development of NTTS, but at a modular level. Efforts to document the baseline system, to assess IT security risk, and to provide an overall systems requirements definition have been performed but need to be updated to more accurately reflect the current configuration. Documentation on how the system is used within the daily operations varies based on the approach Centers select for documenting their operational procedures. System implementation is heavily dependent on staff experience.

Activities in this thrust will ensure NTTS, as a system, is configured for sustained operations, NTTS risks are managed, and will align the NTTS architecture, where possible, with the defined NASA Enterprise Architecture and IT security policies.

1.4.3 Thrust 3 - Enabling/Accommodate Evolving Functionality

Historically the functionality of the program has been on spin-out of technologies. Given the re-vectoring and realignment, existing functionality will need to be revised and new areas will be identified to support the tech-transfer program, such as spin-in and spin-around. Therefore, the NTTS capabilities will need to accommodate improvements in existing functionality, as well as, new functionalities. Additionally, the emphasis on E-gov activities will be addressed in this area to ensure NTTS continues to be compatible for activities identified at the Federal level.

1.5 Project's timeframe:

Start Date: July 1, 2003

Completion Dates:

The NTTS project supports an operation of an on-going system and therefore an end of project date has not been identified.

1.6 NASA Enterprise/Institutional Program Offices:
NPD 7500.2 identifies responsibilities for Enterprise and Program Offices. With respect to NTTS, Enterprise and Program Offices shall ensure that Agency-wide technology commercialization metrics are collected for reporting through the NASA TechTracS information system from all applicable activities under their cognizance and that these metrics are included in their status reports to their appropriate program management council.

1.7 NASA Centers:
NPG 7500.1 identifies responsibilities for Centers. With respect to NTTS, Centers and HQ are responsible for collecting, providing, validating and maintaining quality data in NTTS. Operations support for NTTS at the Centers is identified in NTTS Operation Guidelines available at http://ncis.nasa.gov.

2.0 Project Objectives

2.1 Overall

The NTTS project will ensure NASA has the information technology management systems required to support the program's current and future processes in a configuration for optimal availability, reliability, and sustainability within the defined budgetary allotments.

2.2 Thrust 1 - Operations and Support of NTTS

The overall technology transfer program objectives are accomplished through the implementation of eleven functional processes that involves a broad customer base. A customer's use of NTTS varies from a single unique task to multiple inter-related tasks. To successfully accomplish Thrust 1, recognition of the program processes and their associated customer base is essential. NTTS, as an Agency system, has had day-to-day operations in effect since 1997. Thrust 1 activities will ensure current NTTS capabilities are available and maintained as required by the technology transfer program and its customer base.

A brief description of the processes, the current customer base, application architecture, and technology architecture is provided for further affirmation of the expectations associated with the day-to-day NTTS operations.

2.2.1 Technology Transfer Processes

As defined by NPG 7500.1, there are eleven functional processes NASA performs in fulfilling its technology transfer mission.

2.2.1.1. Develop Technology Commercialization Plans for NASA Programs & Projects: Each NASA Enterprise/program manager is responsible for conducting technology assessment and technology and commercialization planning for their activity. Top-level requirements are contained in NPG 7120.5b. Chapter 3 in NPD 7500.2 provides detail guidance for this process. In general, technology commercialization planning begins with determining the overall commercial potential of the technological assets of an existing or planned NASA activity. Technological assets include new technologies, facilities, or expertise. This drives the robustness of the commercialization plan. One key factor to determining "robustness" is establishing what level of technology commercialization requirements will be emphasized in the contracts/grants/agreements supporting that program. The technology commercialization requirements can range from the traditional technology reporting clauses to more comprehensive requirements, such as those in the SBIR/STTR program. NTTS supports this area by

- Providing NASA managers an up to date status of past and current technological assets, partnerships and success stories; and
- Providing a Web-based capability to provide and update a commercial potential assessment of existing contract/grant/agreement task areas.

2.2.1.2. Harvest & Process New Technology Reports: Promptly identifying and reporting new technologies and innovations is one of the most critical activities within the overall technology transfer process. Improving NASA and NASA' s contractor researchers', scientists', and engineers' awareness of this responsibility is a sizeable challenge. Once reported, the new technology must be processed to determine

- If intellectual property protection is merited,
- What is the technology's commercial potential,
- Should a Technology Opportunity Sheet (TOPS) be prepared,
- Should the technology be published in Tech Briefs, and
- Should the technology be released to the public?

NTTS supports all of the functions above for new technology reporting and processing.

2.2.1.3. Intellectual Property Management: Once it is determined that intellectual property protection is merited—a very technical and legal process is applied. A detailed description of this process and how NTTS supports the process can be found in the Patent Office Procedures at http://ncis.nasa.gov.

2.2.1.4. Space Act Awards Management and Payment: The Space Act Award recognizes a specific scientific or technical innovation that is of significant value to aeronautical or space activities. The award is an individual personal monetary award along with a certificate signed by either the Chair of the Inventions and Contributions Board (ICB) who is the NASA Chief Engineer, or by the Administrator. One purpose of the award incentive is to recognize and award the contribution of such rights to the government for non-contracted contributions. Another purpose is to incentivize the disclosure of the technologies in a timely manner to maximize the benefit for NASA and society. For further information on the awards process see http://icb.nasa.gov.
NTTS provides NASA the capability to submit, process, manage, and pay space act awards. Innovator certificates are also generated from NTTS.

2.2.1.5. Software Release Management: NPG 2210.1 states that "New software, or any preexisting software modified by more than a merely trivial variation or improvement thereof, determined by the Center Releasing Authority to be subject to NPD 2210.1 shall be reported. The report shall at least include information similar to that disclosed in NASA Form 1679 "Disclosure of and New Technology (Including Software)". In addition, the report must:

- Identify the parties involved in the software's creation and development;
- Indicate where the software is an improvement or innovation;
- Identify any proprietary source code or object code that is incorporated into the software and is owned by a non-Federal entity;
- Indicate whether a license has been obtained in situations where source code or object code owned by a non-Federal entity has been incorporated into the software; and,
- Indicate whether any known export restrictions apply to the software.

NTTS provides tracking and reporting of software release partnerships and provides the agency with a software catalog of all recorded software for NASA and all publicly available software to the U.S. Public.

2.2.1.6. New Business Development: Identifying potential technology transfer partners is perhaps the most challenging part of the overall technology transfer and commercialization process. As mentioned earlier, NASA's technological assets are so diverse that they apply to virtually every single market area in the nations' $8.5 trillion economy. With respect to outreach, it is essential that NASA be able to show the US citizenry how they benefit from NASA's technological assets. NTTS supports the new business development and outreach function by

- Offering a single-integrated repository of all NASA technological assets that may have commercial potential,
- Providing an automatic notification service when new technological assets are available,
- Identifying potential leads, and
- Providing the capability to process and track these leads.

2.2.1.7. Manage Agreements & Partnerships: NASA has established a goal that its annual investment in commercial technology partnerships should equal 10-20% of its investment in its R&D base. This goal is not a tax or a set-aside. It does not aim at doing 10-20% more work by adding industry R&D objectives. Instead, it strives to achieve at least 10-20% of NASA's mission and technology objectives in a new and different way through commercial partnerships. Technology commercialization partnerships can be implemented using a broad set of mechanisms as follows:

- Cooperative Agreements
- Space Act Agreements
- SBIR/STTR Program
- Cost-Sharing Contracts
- Waivers and Elections
- Licenses
- Data, Information, and Research Provided for Potential Commercial Use

In the partnering function, NTTS captures and tracks all partnership types and the associated investment by both NASA and its partners. In the licensing function, NTTS provides in-depth tracking for royalty distributions, payments and license milestones and reports. Using the features of the relational database, NTTS automatically builds the list of royalty recipients based on the technologies related to the license. As payments are made, NTTS, using NASA's royalty distribution algorithm, calculates royalties for each recipient.

2.2.1.8. Develop & Manage Success Stories: Technology transfer and commercialization success stories are defined as those commercial technology partnerships which have actually achieved an "acknowledged use or application" of the related NASA technological asset. Each NASA activity should systematically track and follow-up on its commercial technology partnerships to determine if that partnership has

produced any success stories. In addition each Center's TTO is responsible for determining which success stories to release to the public. NTTS currently supports the identification, development and release of success stories.

2.2.1.9. Integrate With Related Knowledge Assets: NASA activities created numerous types of knowledge associated with its technological assets, which can benefit the technology commercialization mission. This includes

- Descriptions of technology projects and tasks,
- Descriptions of facilities,
- Scientific and technical information (STI),
- Integrated Financial Management
- NASA Payroll and Personnel
- SBIR Systems

Integrating this information into a single inventory creates significant value for potential partners considering some type of technology commercialization partnership with NASA. NTTS also provides a significant tool for internal NASA sharing of these assets. NTTS provides the integrated warehouse for these assets.

2.2.1.10. Training and Education: As stated in section 8 of NPG 7500.1, "NPD 7500.2 recognizes NASA's responsibility to "….provide commercial technology training to employees involved in commercialization processes (e.g., program/project engineers, commercialization specialists, procurement officials, etc.)" to enable them to fulfill new job requirements and to enable the Agency to achieve its (technology commercialization) goals." Insuring that the appropriate NASA staff is receiving the right technology transfer training at the right time is a significant challenge.
NTTS provides the training program the capability to identify and communicate with NASA staff (COTR's, Program Managers, Innovators, etc.) associated with NASA activities having commercial potential.

2.2.1.11. Management Status and Metrics: Re-engineering the NASA technology commercialization program over the past several years has created new responsibilities. Implementing these new responsibilities effectively requires significant interaction between the TTO's and the NASA program managers at each center. Technology commercialization metrics, indicating the status of technology commercialization, are now becoming an integral component of each programs' quarterly status review. It is essential that all levels of NASA management have a standard and consistent tool that provides metrics and the status of technology commercialization across NASA enterprises, programs and centers. The tool supports and enables effective communication and interaction between TTO staff and NASA program managers. NTTS provides each NASA Enterprise, Program and Center real time status information of the following technology commercialization functions:

- Commercial Technology Planning and Assessment
- New technology reporting and processing

- Intellectual Property processing
- Awards Management
- Marketing and Outreach
- Partnership Management
- Success Stories
- Knowledge Asset Inventorying

2.2.2. NTTS Customer Base

The customer base of NTTS is very broad and many customers have several responsibilities that will influence the method in which they employ NTTS.

2.2.2.1 NASA Innovators: Virtually anyone working on a NASA activity—whether a NASA employee or contractor/grantee—could be an innovator. Capturing and submitting a complete description of innovations is a resource intensive activity. The efficiency of electronic reporting supported by eNTRe coupled with the status reporting of NTTS provide supportive tools for Innovators' reporting requirements.

2.2.2.2 Technology Transfer Offices: TTO's can exist both at a Center level, as well as, within each NASA Enterprise. Predominantly, these offices are located at the Center level. Within each TTO there are several potential teams including—

- New Technology Representative
- Marketing
- Training
- Metrics
- E-Net
- Partnership Managers

Each one of these teams use multiple and different aspects of the NTTS.

2.2.2.3 Intellectual Property Offices: Each Center's intellectual property groups are responsible for defining and administering policies and procedures with regards patents, copyrights, trade secrets, technical data in contracts, grants, cooperative agreements, international agreements, and the distribution of computer software. This includes such functions as patent soliciting; invention reporting; patent application preparation and filing; and conduct of proceedings before the United States Patent and Trademark Office

2.2.2.4 Inventions and Contributions Board and Award Officers: NTTS supports management of the awards process at the center level, submittal to and processing of the ICB, and payment request.

Processing includes

- Space Act Awards
- Invention of the Year
- Software of the Year
- Inventor Payments

2.2.2.5 Software Release Authorities: According to NPG 2210.1, the Center Releasing Authority will coordinate and oversee efforts to ensure that NASA-funded software is reported, administered and inventoried as any other invention, discovery, improvement, or innovation. TechTracS is used for these purposes.

2.2.2.6 Program Managers/COTRs: NPD 7500.2 calls for program managers and COTR's to play a significant role in implementing NASA's technology commercialization policy. They are responsible for assessing their activities for commercial potential; helping to validate new technologies; and providing the overall technology commercialization status of their program. KIMS is the NTTS component used for this activity.

2.2.2.7 Enterprise/Center Managers: NPD 7500.2 places responsibility for the performance of technology transfer and commercialization in the realm of the Enterprise and Center manager. They are responsible for the overall technology commercialization performance of their programs. Enterprise and Center managers are also heavily involved in outreach and legislative and public affairs. KIMS is the NTTS component used for this purpose.

2.2.2.8 Chief Engineer/Chief Scientists Office: The technology transfer process directly supports two of NASA's strategic cross-cutting processes. The Provide Aerospace Products and Capabilities (PAPAC) belongs to the Chief Engineer. The Communicate Knowledge (CK) process belongs to the Chief Scientist. Both the Chief Engineer and the Chief Scientist have established specific performance measures expected from the technology transfer process. The Chief Engineer expects NASA's commercial technology partnerships to represent 10-20% of its R&D base. In addition, the Chief Engineer, through its System Management Offices, administers NASA's quarterly program reviews. Technology Commercialization performance is expected to be an integral part of these reviews. The Chief Scientist expects a certain portion of NASA's new technology portfolio to be available to the public. NTTS integrates the patent office's approval process with the technology transfer office's public release process and provides real-time web posting of information on NASA's technologies.

2.2.2.9 Public and Legislative Affairs Office: Both the public and legislative affairs specialists have the need to appraise the Congress and the Public as to NASA's contributions. Given the ad-hoc nature of these areas, timely and user-friendly access is essential to meeting these users' needs. A geographical interface has been integrated in to NTTS to further facilitate effective delivery of where NASA is having a positive impact across the Nation.

2.2.2.10 NASA Contractors and Grantees: Over 80% of NASA's annual budget is passed on to a contractor or grantee. NPG 7500.1 establishes that most NASA's contracts and grants have technology transfer responsibilities. Prompt and accurate reporting of new technologies is the immediate challenge at hand. In addition, if awareness of the new technologies from activities is shared then duplication of

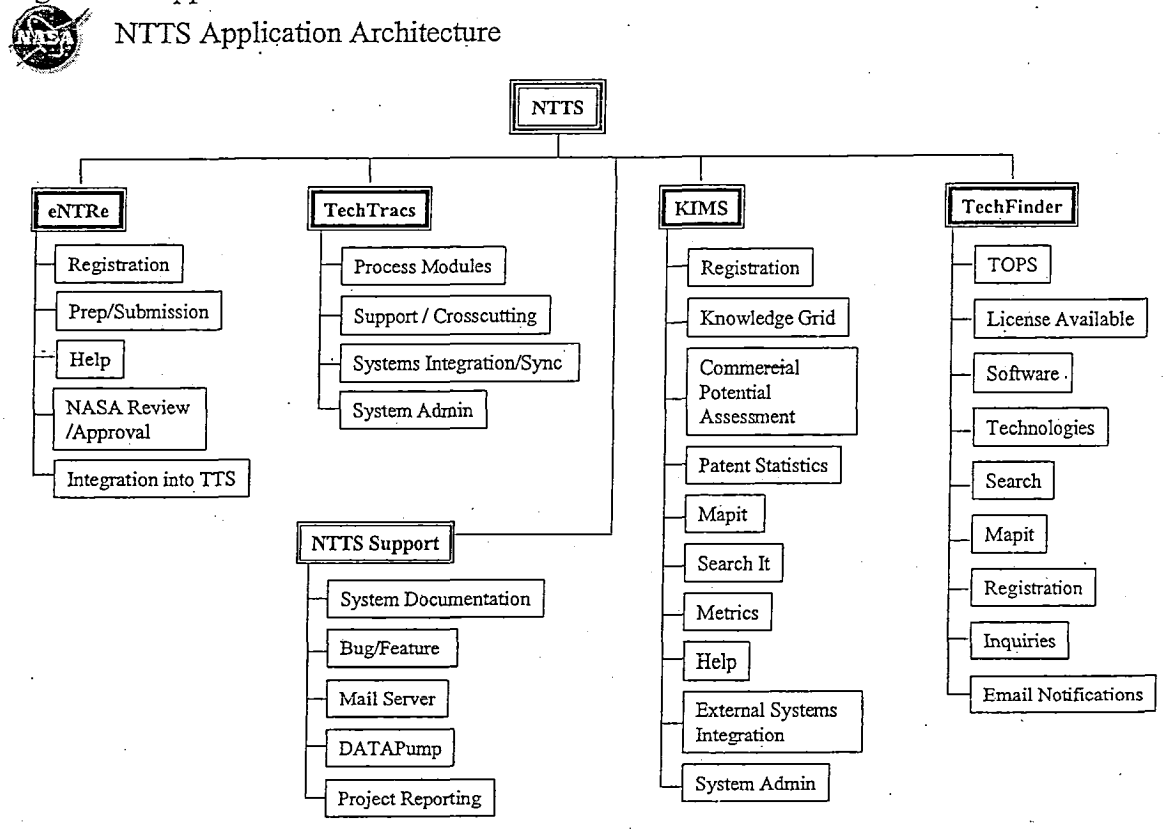
technological efforts can be avoided and result in timesavings. eNTRe and TechFinder are the NTTS components addressing these needs.

2.2.2.11 U.S. Public: NASA's technology assets can benefit virtually every sector of the $8.5 trillion market. These market sectors expect accurate and up to date information on NASA's technology assets to be easily available so as to keep the "finding it" burden low. TechFinder is the NTTS component addressing this need.

2.2.3 Application Architecture

The application architecture (Figure 2) below shows the key application components (eNTRe, TechTracS, KIMS, TechFinder, and NTTS Support) and the first level application modules.

Figure 2 – Application Architecture



2.2.3.1 eNTRe

eNTRe provides the capability for NASA's civil servant innovators and innovators from NASA's funded agreements to electronically report new technologies to NASA's New Technology Representatives beginning the technology management process. Features include a database for historical records keeping by each user, field-level help, and E-mail status notification. Upon email notification of the delivery of a new technology, the

Center's New Technology Represenative reviews the report for completeness and using an intelligent integration process creates a new technology record within TechTracS.

2.2.3.2 TechTracS (TTS)

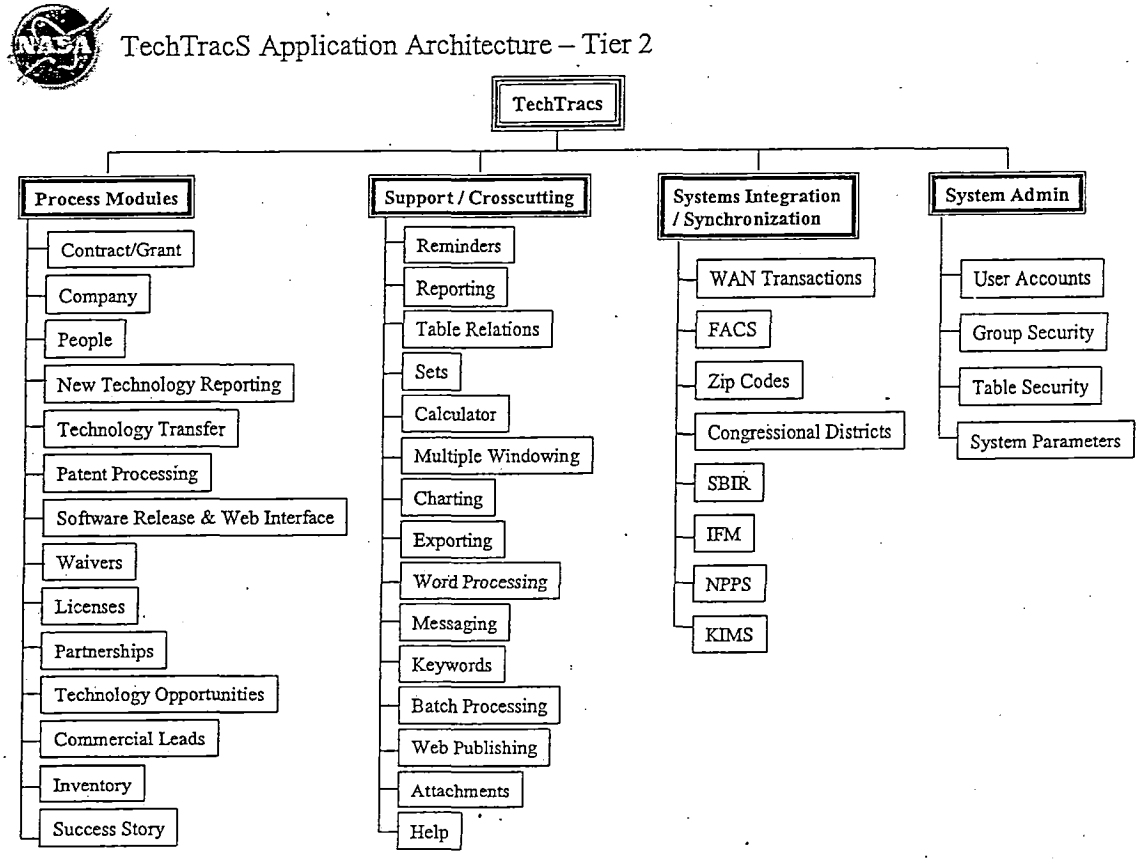
TTS is a distributed network of 4th Dimension relational databases and web servers that are located at each NASA field center and the National Technology Transfer Center (NTTC). Integrated agency-wide servers, the central secure shared file server and the public servers are located at Langley.

TTS provides the day-to-day working tool for each of the NASA Center TTO. Each Centers' TTS is standardized and consists of the following primary components.

- Contract/Grant Module
- Inventory Module
- NTR Module
- Patent Module
- Waiver Module
- Commercial Leads Module
- License Module
- Partnership Module
- TOPS Module
- People Module
- Success Story Module
- Software Release Module

In total there are over 100 tables and 2000 data fields in the standard TTS core. Figure 3 provides the TTS Application Architecture.

Figure 3 - TechTracS Application Architecture



Each Centers' TTS updates the agency-wide TTS server with selected data. Each Center has control over which records are transmitted to the agency-wide system. There are certain areas in each Centers' TTS where no data is provided to the agency-wide system. Technology commercialization metrics are calculated locally on each Center's TTS and then submitted to the Agency-wide TTS. An estimated 9 million transactions annually are automatically executed throughout the network between the Centers' TTS and the agency-wide TTS. Monthly synchronization procedures ensure information is concurrent across the Agency.

2.2.3.3 KIMS

KIMS provides NASA program and project managers real time status of technology transfer related activities and standard monthly metric reports. For the researcher or technologist, KIMS provides search access to all of NASA's technologies, technology producers, and technology partnerships. KIMS consists of the following key technical components.

- Knowledge Grid
- MapIt
- Commercial Assessment
- Searching
- Metrics Reporting / Charting
- Help
- Feature Request/Bug Reporting

- Account Administration

KIMS provides data from either an Enterprise perspective or a Center perspective. In either the Enterprise or Center view, data is available at the program level.

2.2.3.4 TechFinder
TechFinder is the public commercial technology portal providing public access to NASA's technological assets, technology activities, and technology transfer success stories. Key features include quick links to NASA's technologies available for licensing and software technologies, simple and advanced searching, GIS mapping, customer inquiry processing and E-mail notification on new technologies.

2.2.3.5 NTTS Support
User and Technical documentation, a bug/feature on-line request system, and Project Status are maintained on http://ncis.nasa.gov located on the NTTS Support system. Additionally the NTTS mail server and KIMS datapump applications reside on NTTS Support.

2.2.4 Technology Architecture
The technology architecture is the physical configuration, network, hardware, and software components that enable the application architecture.

Several COTS products are integrated together to respond to the defined requirements. Relational database technology is used due to its logical approach to information storage that matches with a user's perception of information and its controlled redundancy that supports relations of many to one and simplifies data manipulation logic. Two relational database systems are used in NTTS; 4th Dimension (4D) and MS SQL Server. Both systems support industry standards and are ODBC compliant. In addition to the database engine, 4D provides a family of products that are an integral part of the NTTS operational capabilities.

MS SQL Server is used as the database engine for KIMS. A new application was developed to allow real-time data exchange of information between TTS and KIMS; DataPump. The DataPump employs both database engines' compatible features in its processing.

There are several web sites in NTTS that are supported by the database engines in conjunction with two web applications; Cold Fusion and NetLink. Web services are provided using Apache and Netscape. Centralized secured file sharing services are provided using Webdav.

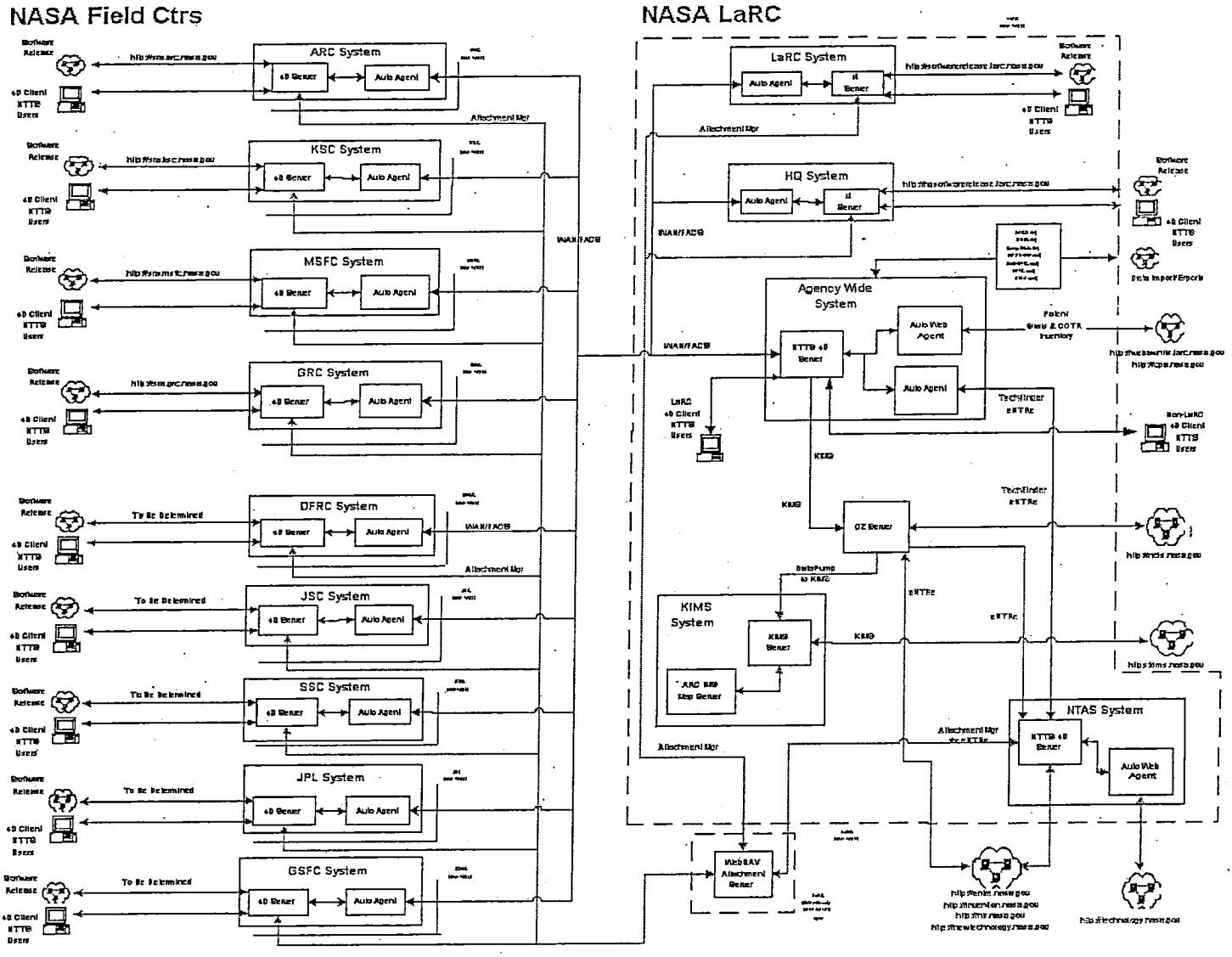
NTTS is compatible with both PC's running Windows 98, NT, or 2000 and Macintosh systems running MacOS 9.x or higher. Refer to NTTS_System_Requirements located on http://ncis.nasa.gov for the most recent recommended machine configurations.

NTTS is a distributed system with physical locations at each NASA Center. Each Center has a 4D database server and an intelligent background processor that facilitates the real time synchronization between the Center systems and the Agency systems. All agency systems are located at Langley Research Center.

The NTTS network utilizes the public network, NISSN, and center virtual private networks (VPN). NASA users within Centers use Center internal networks for connection to local servers and NISSN for connection to the agency systems. NASA users outside centers and the technical support team use identified center VPN's and the public network for connection to NTTS. Users on NASA funded agreements use the public network and secure socket layer.

Figure 4 provides an overview of the NTTS system components, NTTS application components, web sites, information flow and physical location.

Figure 4 - NTTS System Architecture
See System Architecture on http://ncis.nasa.gov under documentation for higher resolution image.



2.2.5 Technology Transfer Process / User / NTTS Component Mapping

NASA's success in its technology transfer mission depends on the day-to-day effective implementation of the technology transfer processes. To reduce the presentation complexities that arise when describing the methods the broad user community employs when performing the eleven functional processes, a mapping of NASA's use of the NTTS components by its users to the eleven technology transfer processes is provided in Attachment 2. The eleven processes described in section 2.2.1 are listed on the left side of the map. The user base described in section 2.2.2 is listed on the topside of the map. The NTTS components used to perform the functions are identified in the intersecting areas, thereby, providing information on who the user is, what process is being performed, and what NTTS element is employed to perform the process.

2.3 Thrust 2 –Implement Sustaining System Management and Architecture

Thrust 2 activities will consist of studies, recommendations, and implementations to accomplish the following while maintaining current functionality and user experience.

- Document Baseline System Including Stakeholders and Expectations
- Update IT Security Risk Assessment and Establish Risk Management Plan
- Update IT Security Plans and Implement Risk Mitigation Actions
- Incorporate NASA Enterprise Architecture
- Reduce System Integration and Synchronization Complexity and Costs
- Identify and Implement Centralized System Architecture
- Improve Connectivity to Other NASA Systems
- Integration of New Technologies

The following elements have been identified to address Thrust 2 activities. The Project Manager will establish integrated process teams to accomplish these elements and using the project communications plan (section 3.3) project status and implementation recommendations shall be coordinated with the Program Director, Process Leads, and NASA Stakeholders.

1. Document Existing Baseline including User and System Requirements
2. Confirm stakeholders and expectations
3. Identify Risks and Establish Risk Management Plan
4. Define constraints
5. Define System Concepts
6. Define Concept of Operations
7. Define Evaluation Criteria
8. Define System Requirements
9. Define Candidate Architectures
10. Define Support Role Requirements
11. Conduct Trade Studies
12. Define Recommended Architecture
13. Define Architecture Implementation Plan

14. Revise Change Management System for Improved Configuration Management.

2.4 Thrust 3 - Enabling/Accommodate Evolving Functionality

The business processes embodied in technology transfer process are highly technical and administratively complex due the program's roots in the engineering and legal areas. This combination results in high potential for automation. Additionally, the importance of technology transfer in the Nation's competitiveness results in continual redefinition.

NASA is the only federal agency that has linked its procurement and financial information to its technology-management process. This unique capability has placed NASA in the forefront of technology transfer information management. Leadership in this area has and will continue to result in the identification of new functionalities supportive of the Nation's technology transfer activities.

Thrust 3 activities will identify and clarify emerging requirements, identify new user groups, and will revise NTTS as needed. Due to the broad customer base and their associated inter-related system services, Customer Teams for core processes and identified points of contact for external processes will work with the NTTS Project Manager to accomplish Thrust 3 activities. In accordance with the NTTS Communication Plan (Section 3.3), quarterly management oversight reporting will be provided to the Program Director and Key NASA Stakeholders for recommendations on system revisions and associated delivery schedules. Change management as provided in Section 5.1.2 will be used in Thrust 3 activities.

Requirements in Thrust 3 will fall in to two areas:
Area 1 – Improve existing functionality moving towards increased level of automation.
Area 2 – New functionality to share technologies between NASA programs internally and establishing and supporting E-gov initiatives.

2.5 Relation of Project Objectives to Program objectives

The Innovative Technology Transfer Partnerships Theme consists of NASA's Technology Transfer Activity and the SBIR/STTR programs. The ITTP program objectives and support of Regulatory Requirements as they relate to NTTS Project objectives are reflected in Table 5. All three thrusts identified in the NTTS Project are required to provide the support identified in column 2 of Table 5.

Table 5 – Agency Requirements and Program Mission Objectives

Agency Requirements and Mission		NTTS Project Supporting Activities
Regulatory Requirements	**National Aeronautics and Space Act** of 1958, as amended (Space Act, 42 USC 2451 et seq.)	***Capture*** Accurate Information on Technologies, Expertise and Facilities. ***Management*** Of Intellectual Assets ***Facilitate*** Internal and External Sharing of NASA's Intellectual Assests
	Stevenson-Wydler Technology Innovation Act of 1980 (15 USC 3701 et seq.)	
	Bayh-Dole Act of 1980 (Public Law 96-517), as amended (35 U.S.C. 200 et seq.)	
	Federal Acquisition Regulations	
NASA Mission	**Goal 3:** Create a more secure world and improve quality of life by investing in technologies and collaborating with other agencies, industry, and academia	
	Objective 3.3: Improve the Nation's economic strength and quality of life by facilitating the innovative use of NASA technology.	
	Goal 6 - Inspire and motivate students to pursue careers in science, technology, engineering, and mathematics.	***Training*** Tool Providing a Hands-on Environment for Understanding the Management of Technology Transfer Activities ***Facilitate*** External Sharing of NASA's Intellectual Assets
	Objective 6.4 - Improve higher education capacity to provide for NASA's and the Nation's future science and technology workforce requirements.	
	Goal 7: Engage the public in shaping and sharing the experience of exploration and discovery.	***Facilitate*** External Sharing of NASA's Intellectual Assets and Technology Transfer Success Stories
	Objective 7.3: Increase public awareness and understanding of how research and innovations in aerospace technology affect and improve quality of life.	
	Goal 10: Enable revolutionary capabilities through new technology	***Capture*** Accurate Information on Technologies, Expertise and Facilities. ***Facilitate*** U.S. Private Sector's Knowledge of these items. ***Track*** and Manage Partnerships and Agreements.
	Objective 10.6: Enhance NASA's mission by leveraging partnerships between NASA Enterprises and nonaerospace U.S. industrial firms and by leveraging the venture capital community for innovative technology development.	

2.6 Project Performance Goals

The program's performance goals are supported by the outcome of the project's performance goals as shown below in Table 6.

Table 6 – Program Performance Goals and Project Goals Outcomes

Item	Program Performance Goal	Project Goal Outcome
ITTP1	Complete 200 transfers of NASA technologies, expertise or facility usage to the U.S. private sector, through hardware licenses, software usage agreements, or Space Act agreements.	Capture accurate information on technologies, expertise and facilities. Facilitate U.S. Private sector's knowledge of these items. Track and manage partnerships and agreements.
ITTP2	Engage at least four institutions of higher education in the NASA mission in FY '04 by providing opportunities and experience for students to help prepare them for successful careers in the field of technology management through NASA intern experience.	Use NTTS as a training and education tool for student interns providing a hands-on environment for understanding technology transfer and intellectual asset management activities.
ITTP3	Promote and develop innovative technology partnerships between NASA, venture capital firms and U.S. industry for the benefit of all Enterprise mission needs.	Capture accurate information on technologies, expertise and facilities. Facilitate VC and U.S. Industry insight into these areas within NASA.
ITTP4	Align SBIR/STTR with priorities contributing to NASA mission and vision.	Provide timely identification of the output of the SBIR/STTR activities and their direct correlation to the NASA Enterprises.

Overall project performance goals consist of traditional performance measurements of cost, schedule, and risk. Additional measurements for Thrust 1 have been identified to provide specific areas addressing the requirements of an operational information management system. Goals and targets for Thrusts 2 and 3 will be defined within the requirements phase of each associated activity. Implemented activities from Thrusts 2 and 3 will be incorporated into Thrust 1. Table 7 defines the NTTS performance goals and targets.

Table 7. NTTS Project Performance Goals

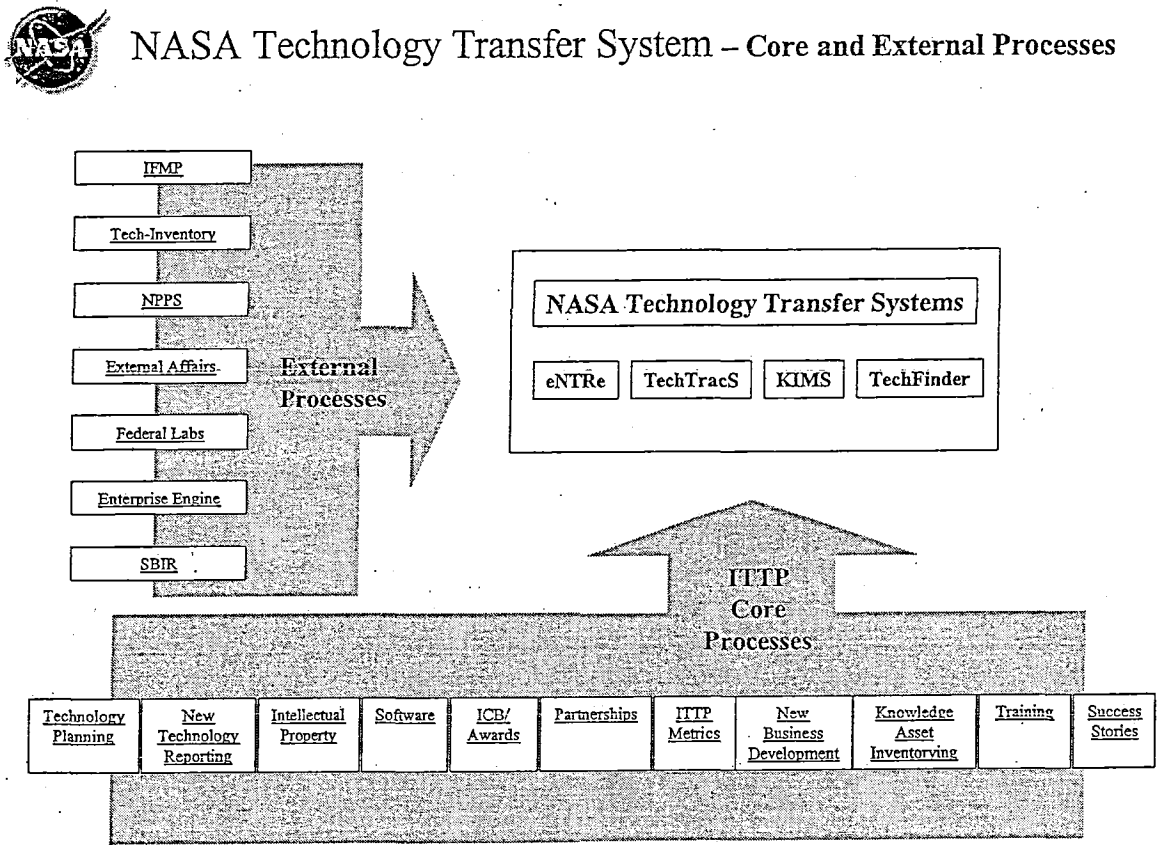
Project Element	Performance Measure	Goal	Target
Cost	Project implementation costs will remain within budget commitments in any project phase.	Project implementation costs will not exceed budget commitments by more than 10%.	Project implementation costs will not exceed budget commitments by more than 15%.
Schedule	Implementation schedule commitments will be met.	Implementation schedule commitments for each deployment will not slip by more than 1 quarter.	Implementation schedule commitments for each deployment will not slip by more than 2 quarters.
Risk	Identified risks will be effectively managed so as to prevent occurrence/impact.	Identified risks are reduced to a low severity before implementation to the production environment.	Identified risks are reduced in the production environment within 2 release cycles.
Thrust 1 – Functionality	Identified functionality is defined and understood so as to prevent functionality issues within the production environment.	Identified issues do not result in system inoperability or compromise data integrity.	Each release of NTTS resolves identified issues in the operational functional baseline.
Thrust 1 - Availability	Operations availability is defined and scheduled.	All operational outages are planned and scheduled.	Outages for any individual operational component, after identification, shall not exceed eight hours.
Thrust 1 – Data Integrity	Issues resulting from system are promptly identified and mitigation plans baselined.	Mitigation plans are executed to prevent delivery of misinformation.	Identified data integrity issues are resolved within the cost and schedule parameters of the mitigation plan.

3.0 Customer Definition And Advocacy

3.1 Customer Definition

As provided in section 2.2.2, the customer base for the NTTS Project is very broad ranging from the NASA Innovator to the U.S. Public. Customers use NTTS in support of their requirements as they relate to the eleven technology transfer processes defined in NPG 7500.1. A mapping of the customers' use of NTTS by technology transfer process is provided in NTTS_Functional_User_Matrix (Attachment 2). Core process teams and external process points of contact, as shown in figure 5 below, further define the customer base.

Figure 5 - NTTS Core and External Processes



The process owners are responsible for the processes automated by the NTTS project. As such, core process teams and the external process points of contact play a significant role in defining project requirements and priorities, as well as evaluating the success of the project.

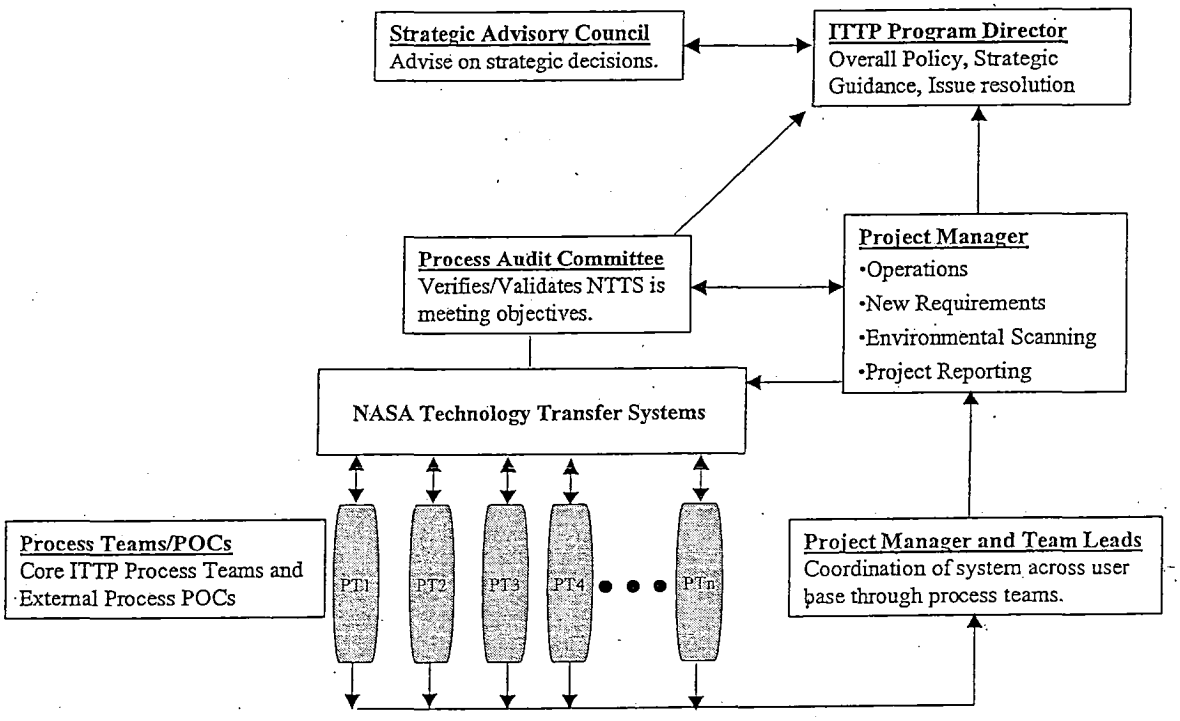
The identification of the NTTS customer base has resulted with the development of each NTTS module. Activities in Thrust 2 will formally confirm the identified customer base and their associated expectations of NTTS.

Success in the plan's three thrusts depends on a formal governance structure and communication plan. Section 3.2 provides the recommended governance structure and roles and responsibilities of each governance element. Section 3.3 provides the recommended communication plan incorporating periodic reviews and information exchanges at all customer and stakeholder levels.

3.2 Governance and Advocacy

Governance of the NTTS Project shall be subject to a multi-tiered governance structure, established by the ITTP Program. This structure enables the project's continued achievement of advocacy and support. Figure 6 below provides a graphical depiction of the governing areas and the communications flow between the areas.

Figure 6 - NTTS Governance and Advocacy



A brief description of each governance element in Figure 6 is provided below.

- **NTTS Strategic Advisory Council** – A strategic advisory council consisting of the Associate General Counsel (IP), the NASA Chief Engineer, the NASA Chief Scientist, the NASA Chief Information Officer, IFMP Program Director and the

heads of each Center's Technology Transfer Office will advise on NTTS strategic decisions of the ITTP Program Director. Additionally to ensure judicious use of NTTS within NASA, the Council will advocate, where possible, for incorporation of NTTS in to other Agency processes.

- **ITTP Program Director** – The ITTP Program Director approves the scope, direction, and funding of the NTTS Project and provides strategic guidance. In addition, the Director will advise, endorse, and act as an advocate for the changes that will be required by the implementation of new and revised business processes and systems.

- **Project Manager** – The NTTS Project Manager is the central management component of the NTTS Project and is responsible for NTTS operations and the recommendation, definition and implementation of new requirements. The NTTS Project Manager shall seek out new or different methods for accomplishing the objectives of the NTTS and will provide recommendations on the incorporation of these identified methods into the NTTS. The NTTS Manager provides all project reporting as defined in Section 3.3 – Communications Plan. Additional information on the Project Manager responsibilities is provided in Section 4.1.

- **NTTS Process Audit Committee**– The NTTS Project Process Audit Committee (PAC) provides validation and verification that NTTS is meeting the objectives as provided by the ITTP Program Director, the Core Process Teams, and External Process POC's. Additionally the Committee shall perform reviews and assessments of the project identified risks and mitigation strategies. The Committee works with the NTTS Project Manager in performing their auditing role. The Process Audit Committee consists of a representative from each of the following offices.

  - Headquarters ITTP Program Office, Committee Chair
  - Headquarters General Counsel Intellectual Property Office
  - Headquarters Chief Engineer
  - Center Technology Transfer Office (2 Centers – 1 Representative from each selected by ITTP Director)

  Representatives from the OCIO and the IFMP will be invited to participate as consultants as Committee activities dictate said requirement.

  The PAC Committee Chair will participate in the quarterly and annual project status meetings with the ITTP Program to provide status reporting of the PAC.

- **Project Manager and Team Leads** - The NTTS Project Manager has insight into all the inter-relationships of the NTTS processes. As process functionalities cross each other within NTTS, the NTTS Project Manager will facilitate coordination meetings with the required process leads or points of contact.

- **Core Process Teams and External Process Points of Contact**
  –Agency Process Teams exist for each core ITTP process. Each team is comprised of a Headquarters lead and Center process representatives. The role of the Agency

Process Teams is to develop standard Agency-level business processes specific to ITTP using NTTS where possible. Team leads are responsible for identifying requirements and facilitating the use of NTTS into the core ITTP processes.

– Several processes external to ITTP's core processing exist and have support requirements of NTTS. Each external process has a point of contact that is responsible for identifying requirements and facilitating the use of NTTS into the external process.

3.3 Communication

Project communication provides the critical link among all Customers, Stakeholders, and Project team members for the project's success. The purpose of this section is to recommend a communication plan to:

- Describe the objectives, target audience, communication method, and frequency
- Serve as a tool that provides consistent communication across the project

3.3.1 Communication Objectives

The communication objectives of the NTTS Project are to facilitate open and effective transmittal of information pertaining to NTTS usage both in and outside of NASA, NTTS Project status (schedule, costs, deliverables), on-going recommendations for the long-term viability of NTTS, and issue resolution. Fulfillment of the communication objectives will provide sponsorship with internal and external customers and stakeholders by:

- Ensuring that customers and stakeholders are aware of decisions made during the project lifecycle.
- Addressing and resolving issues and concerns related to the operations, design and implementation activities associated with the three thrusts of the NTTS Project
- Helping customers understand how to effectively incorporate NTTS into their processes
- Providing timely project information to promote an informed and involved customer base
- Apprising customers and stakeholders involved in NTTS Project of the expectations for their level of support, roles and responsibilities
- Provide timely status and issue information to the ITTP Program Management
- Provide effective internal communication among all NTTS Project team members

3.3.2 Target Audiences

The following audiences have been identified as critical to the successful implementation of the NTTS Project:

- Director, ITTP Program Office
- NTTS Strategic Advisory Council
- ITTP Core Process Teams and External Process Points of Contact
- NTTS Process Audit Committee
- Center Technology Transfer Offices, Director and Staff
- Center Intellectual Property Offices, Patent Counsel and Staff
- Head, Project Development and Management Office, Langley Research Center
- CIO, Langley Research Center

3.3.3 Communication Methodology

The NTTS Project will utilize a wide range of communication media. Mechanisms to support the communication requirements are provided in Table 8 below.

Table 8. NTTS Communication Plan

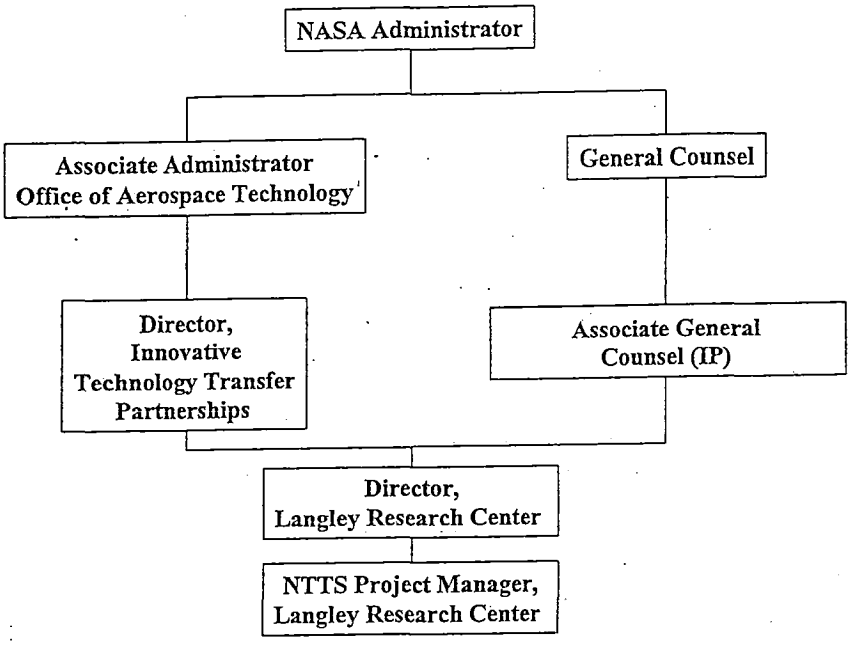
Target Audience	Objectives	Vehicle	Frequency
ITTP Program Director	Strategic Guidance, Project status, information exchange	Monthly Project Status Webex Telecons, Quarterly Project Review Face to Face Meeting	Monthly /Quarterly
ITTP Program Director Strategic Advisory Council LaRC CIO	Project Plan Annual Status, Key Milestones, High Level Status	Face to Face Meeting	Annual
Process Teams External Process POC's Process Audit Committee	Development Status, Process Coordination	Webex Telecons, Website	As Required
Process Teams External Process POC's Process Audit Committee	Release Status, Process Coordination	Webex Telecons, Face to Face Meetings, Website	Biweekly website posting, others as required
Process Teams External Process POC's Process Audit Committee	Release Testing, Release Notes, Test Plan, Draft Documentation	Webex Telecon Review of Release Functionality, Website	Initial Day of Test Period and as requested
Process Teams External Process POC's Process Audit Committee	Final Release Deployment Schedule	Email Schedule, Website	Two days Before Deployment
Process Audit Committee	Operations Status, Development Reviews, Issue Resolution	Webex Telecons	Monthly

NTTS Project Team	Operations Status, Development Reviews, Issue Resolution	Webex Telecons, Face to Face Meetings, Website	Weekly and as required
Head, LaRC PDMO	Status, Information Exchange	Face to Face Meetings	Monthly
Customers NASA Management External Entities	System Advocacy, Information Exchange	Electronic, Face to Face, Brochures, Presentations, etc.	As required on version release.

4.0 Project Authority

Langley Research Center has project management authority and Langley Research Center SQMC is responsible for the oversight of the NTTS Project.

Figure 7 - Path of Accountability.



4.1 NTTS Project Manager

The Project Manager is responsible for implementation of the NTTS elements with full authority to manage the elements within the defined objectives, technical scope, schedules, and resources. The Project Manager reports to the ITTP Program Director. Specific responsibilities include:

- Defining and implementing the NTTS elements within the technical, cost, and schedule constraints established by the NTTS plan
- Executing project control, with authority to reprogram element resources, not to exceed a given year's budget (and providing that Project or Program level milestones are not affected), as necessary to address technical, schedule, and resource priorities
- Provide recommendations for changes to the NTTS Project plan to the ITTP Program Director, and implementing changes upon approval
- In accordance with the Communication Plan in Section 3.3, provide periodic project reports, reviews, and other reviews as required
- Act as primary interface with customers and partners to ensure effective technical direction and implementation of NTTS elements

- Contracting for development and implementation services and COTR
- Management of all resources (facilities, workforce, and funding) required to meet the milestones identified for the project
- Ensure technical integration is implemented across all Elements.
- Ensuring that module integration requirements are coordinated with Core Process Leads, External Process POC's and the Process Audit Committee
- Managing project level risks
- Execute issue resolution plan (Section 3) as required
- Application support to process teams and POC's
- Interface technical design, development and implementation
- Planning, execution, and tracking of all testing activities
- Release implementation planning
- Site readiness assessments
- Support to the other Centers for site specific activities during Agency Deployment
- Coordination of implementation activities across Centers.
- Post implementation support during stabilization periods
- Seek out new or different methods for accomplishing the objectives of the NTTS

4.2 Langley Center Director

The Center Director assigns the Project Manager, provides facility infrastructure and provides oversight for programmatic commitments.

4.3 ITTP Program Director

The Program Director provides overall programmatic goals and content, funding guideline, and strategic guidance.

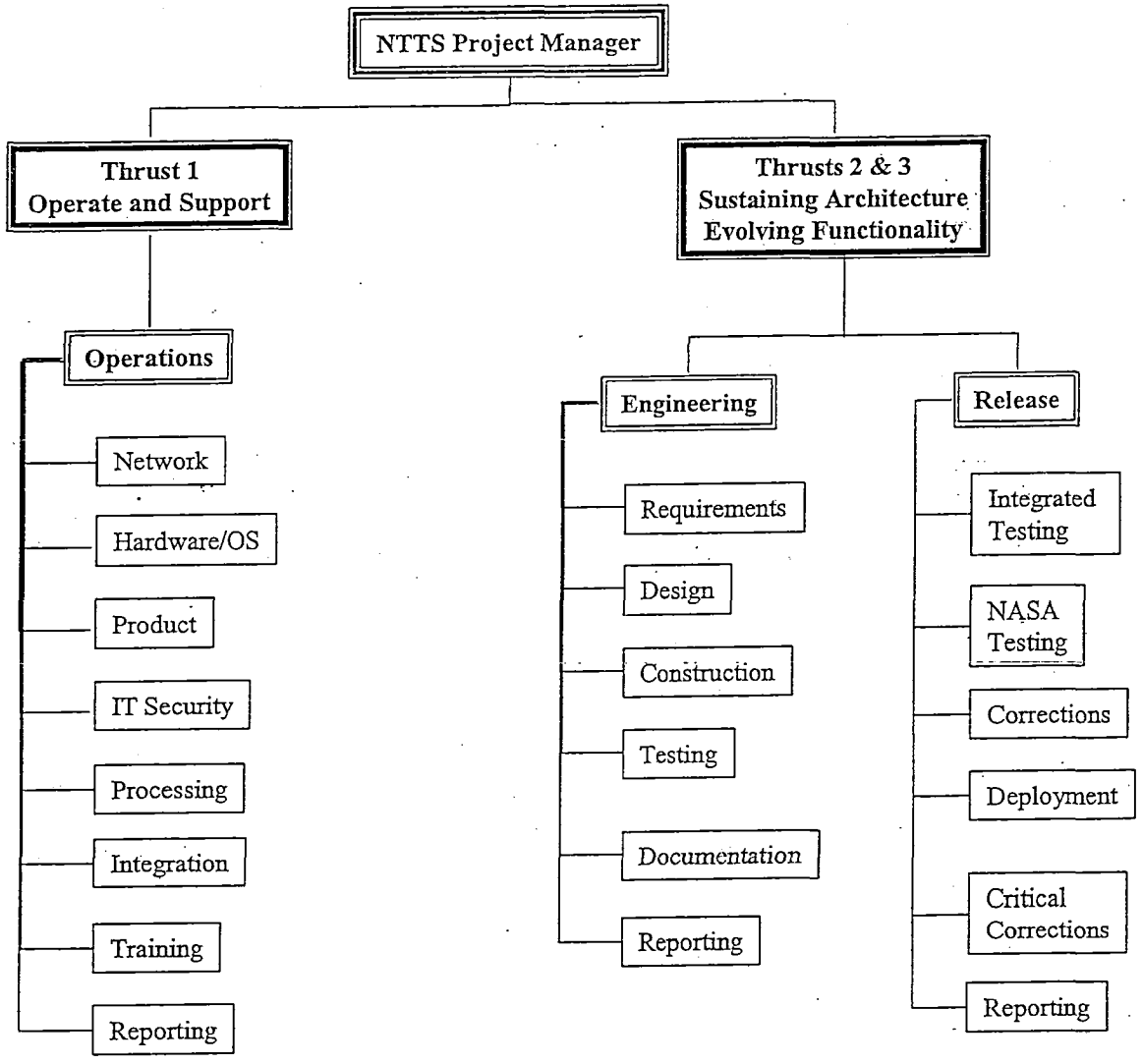
4.4 Associate General Counsel (IP)

The Associate General Counsel of Intellectual Property provides information on regulatory requirements requiring support of NTTS and is a member of the Strategic Advisory Council.

5.0 Project Management

5.1 Project Management Structure:

Figure 8 - Project Management Structure Chart



5.1.1 Thrust 1 - Operations and Support

Thrust 1 consists of 8 elements.

1. **Network** - The NTTS network utilizes the public network, NISSN, and Center virtual private networks (VPN). NASA users within centers use center internal networks for connection to local servers and NISSN for connection to the Agency systems. NASA users outside Centers and the Technical Support Team use identified Center VPN's and the public network for connection to NTTS. Users on NASA funded agreements use the public network and secure socket layer.

2. **Hardware/OS** - NTTS is a distributed system with physical locations at each NASA Center. Each Center has a 4D database server and an intelligent background processor that facilitates the real time synchronization between the Center systems and the Agency systems. All agency systems are located at Langley Research Center. NTTS is compatible with both PC's running Windows 98, NT, or 2000 and Macintosh systems running MacOS 9.x or higher. Refer to http://ncis.nasa.gov for the current recommended machine configurations.

3. **Product** - Several COTS products are integrated together with a customized processing and interface environment to respond to the defined requirements. Relational database technology is used due to its logical approach to information storage that matches with a user's perception of information and its controlled redundancy that supports relations of many to one and simplifies data manipulation logic. Two relational database systems are used in NTTS; 4th Dimension (4D) and MS SQL Server. Both systems support industry standards and are ODBC compliant. In addition to the database engine, 4D provides a family of products that are an integral part of the NTTS operational capabilities.

   MS SQL Server is used as the database engine for KIMS. A new application was developed to allow real-time data exchange of information between TTS and KIMS; DataPump. The DataPump employs both database engines' compatible features in its processing.

   There are several web sites in NTTS that are supported by the database engines in conjunction with two web applications; Cold Fusion and NetLink. Web services are provided using Apache and Netscape. Centralized secured file sharing services are provided using Webdav.

4. **IT Security** – Each Center maintains IT security plans for the resident systems. Together these plans define the system's security plan. Thrust 2 activities will further refine security procedures within NTTS.

5. **Processing** – Routine scheduled processing is defined within the statement of work (SOW) under the Technical Support Contract (TSC). See NAS1-00113 for SOW.

6. **Integration** – NTTS employs various approaches to integration among the four major NTTS components and other NASA systems. Integration within NTTS is defined in the technical documentation located at http://ncis.nasa.gov. Integration with other NASA systems, Section 14 – Project Dependencies, has been coordinated with External POC's. It is recommended in Section 15, Project Agreements, that formal internal agreements be established to clearly define integration expectations.

7. **Training** – Two types of training are required; Module and Application Administration. Module training consists of showing users how to use NTTS within their daily jobs. Process experts located at each Center provide module

training. Additionally the National Technology Transfer Center has been tasked to provide module-training sessions using SOLAR.
The Technical Support Contractor, using web-meetings, provides application Administration training.
Documentation on application administration, user guides, and module capabilities are maintained on http://ncis.nasa.gov.

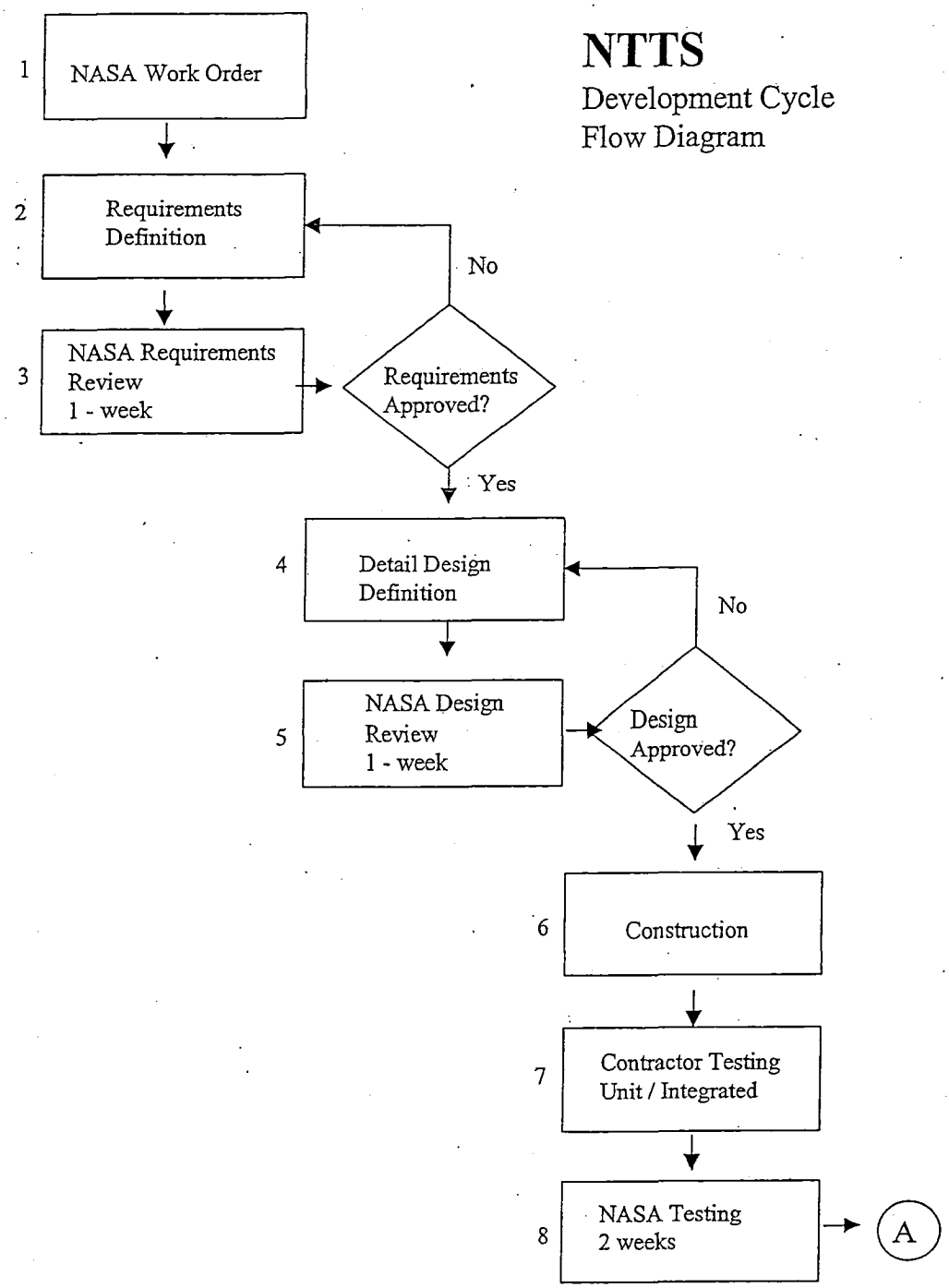
8. **Reporting** – In accordance with the communication plan in Section 3.3, operations status will be provided in project status reporting.

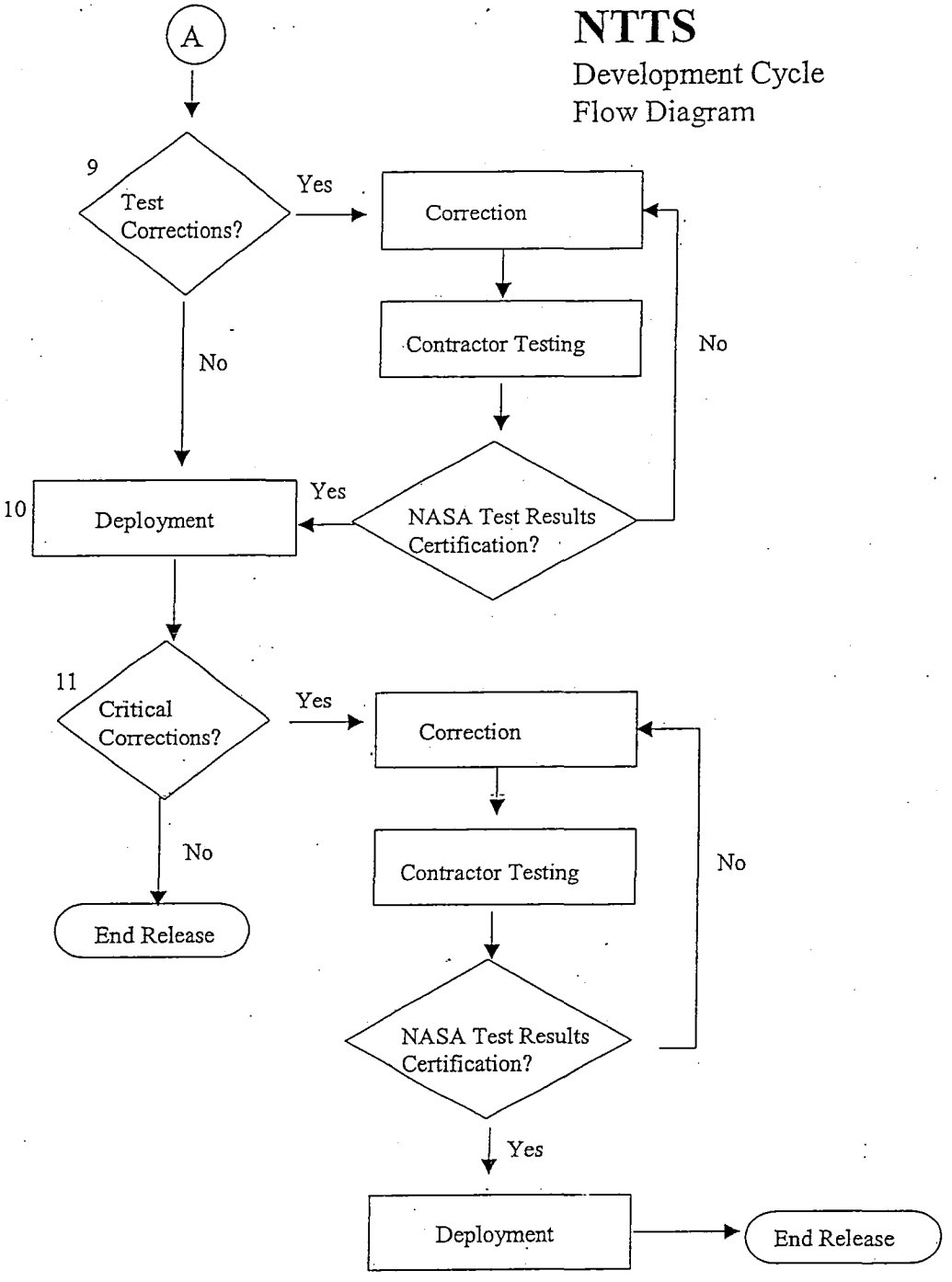
5.1.2 Thrusts 2 and 3 - Sustaining Architecture and Evolving Functionality

Any NASA employee or entity outside of NASA can initiate activities in Thrusts 2 and 3. Customarily, the identified Core Process Owners or NASA Stake holders are the initiators of Thrusts 2 and 3 activities. Requirements are brought to the attention of the Project Manager and if the request is within the NTTS Project's scope of work, the following process provided in figure 9 below is employed. A brief description of each step is provided after the figure. In accordance with the communication plan in Section 3.3, status on Thrust 2 and 3 activities will be provided in project status reporting.

If the Project Manager determines the work request is outside of the NTTS Project's scope then the requestor and the Project Manager will meet with the Program Director for resolution.

Figure 9 - NTTS Development Cycle





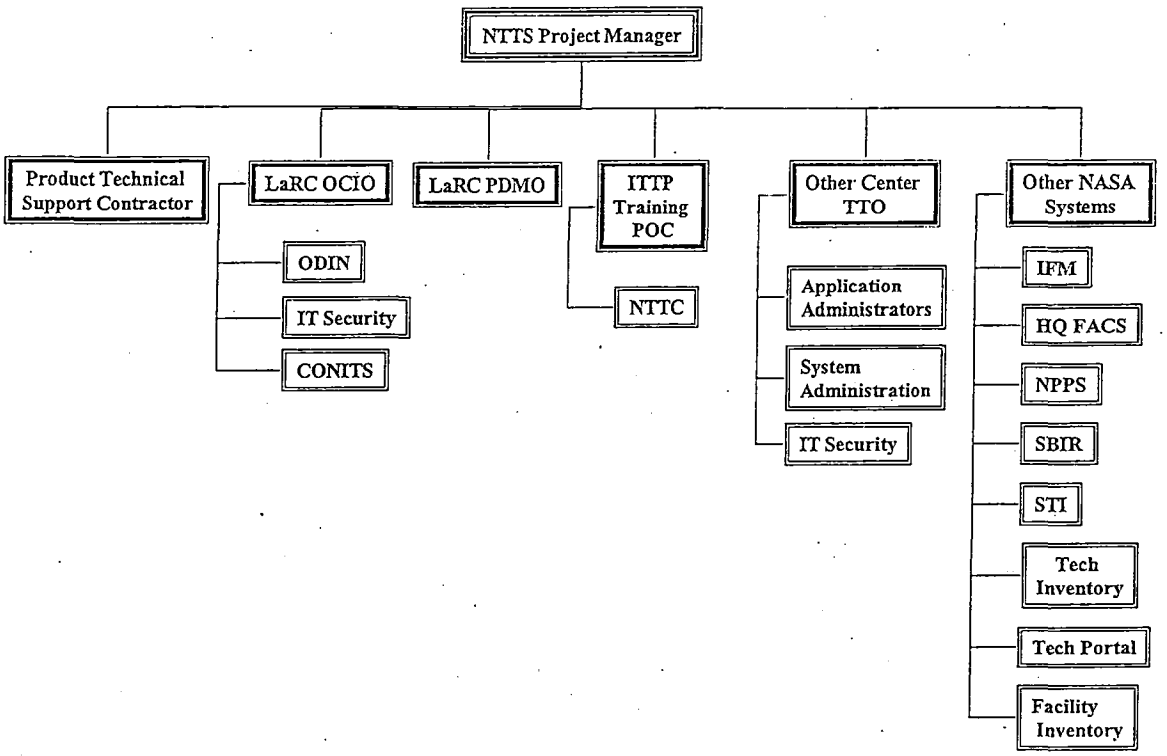
NTTS Development Cycle Description

1. The Project Manager works with the requester to develop the initial work request. The Work request identifies top-level requirements; impacts if work is performed and if work is not performed; and desired test requirements. Work is initiated when the Project Manager sends the work request to the Technical Support Contract (TSC) for action. Attachment 3 provides the work request template. This document is then incorporated into requirements document produced in step 2.

2. The TSC works with the Project Manager and the Process Team to further refine the requirements and produces a Requirements Definition Document (RDD). Attachment 4 provides a RDD template. This document confirms the TSC's understanding of the work request, further defines areas of impact, and contains the first estimate for costing and scheduling.
3. The Project Manager reviews the RDD and then facilities reviews by Process Teams, External POC's, and the Process Audit Committee. At the completion of this review period three options are available.
   1. If the requirements have not been fully defined, Step 2 is repeated.
   2. If the requirements are well defined and the requirements, cost and schedule are within the NTTS Project plans then the Project Manager submits the request to the TSC.
   3. If the requirements, cost or schedule are not within the NTTS Project plan then the Project Manager and the Process Lead work to de-scope the requirements or meet with the Program Director for resolution.
4. Upon notification of NASA approval from the Project Manager, the TSC will develop the Detail Design Documents (DDD). This document will contain interface designs and details on all system modifications needed. The cost and schedule estimates are further refined at this point. Attachment 5 provides a DDD template.
5. The Project Manager reviews the DDD and then facilities reviews by Process Teams, External POC's, and the Process Audit Committee. The same review process options as described in step 3 are also used in this step.
6. Upon notification of NASA approval from the Project Manager, the TSC will construct the product.
7. The TSC performs unit and integrated testing using the test environment.
8. NASA testing is initiated with a TSC demonstration of the product to the Project Manager, Process Teams, External POC's and the Process Audit Committee. The test plan, release notes and draft user documentation is released to **http://ncis.nasa.gov** for use and review during the NASA test period.
9. During the NASA test period, bugs are collected through the bug system located at http://ncis.nasa.gov. The TSC Test Manager reviews bugs daily and coordinates with the Project Manager on bug resolution. The corrected product will be re-released for NASA Testing during the test period.
10. Upon NASA certification from the Project Manager, the TSC will proceed with scheduled deployment.
11. If critical corrections are needed after deployment, the TSC will correct the product, provide a demonstration to the Project Manager for certification and then proceed with a second deployment. Final versions of user documentation are released 10 days from the final release day and are posted on http://ncis.nasa.gov.

5.2 Organizational Structure:

Figure 10 - NTTS Project Organization Support Structure



1. **Product Technical Support Contractor** - Product Technical Support is acquired under contract. All services provided are defined in the Statement of Work, NAS1-00113.

2. **Langley OCIO** –Several IT support services are acquired through Langley's Office of Chief Information officer.

   - All networking and base hardware configurations located at Langley are acquired through the Center ODIN contract. Seat augmentation is acquired through competitive purchases.
   - Langley IT Security provides security risk assessments and guidance in IT security matters relating to NTTS.
   - Langley's Application Administrator support is provided under the Langley CONITS contract, Task OA-001.

3. **Langley PDMO** - The Langley Program Development and Management Office provides secretarial and costing support to the NTTS Project.

4. **ITTP Training POC** - The ITTP Training point of contact facilitates access to the National Technology Transfer Center for development of module training materials.

5. **Other Center TTO** - Each Center's Technology Transfer Office provides application administration, system administration, local server hardware, networking and operations.
6. **Other NASA Systems** - NTTS interfaces with eight other NASA systems. Points of contact for each system facilitate the required interfaces. See Sections 14 and 15 for further information on these interfaces.

Mapping of organization elements to the project management elements is provide below by thrusts in figures 11, 12 and 13.

Figure 11 - Organizational support of Thrust 1.

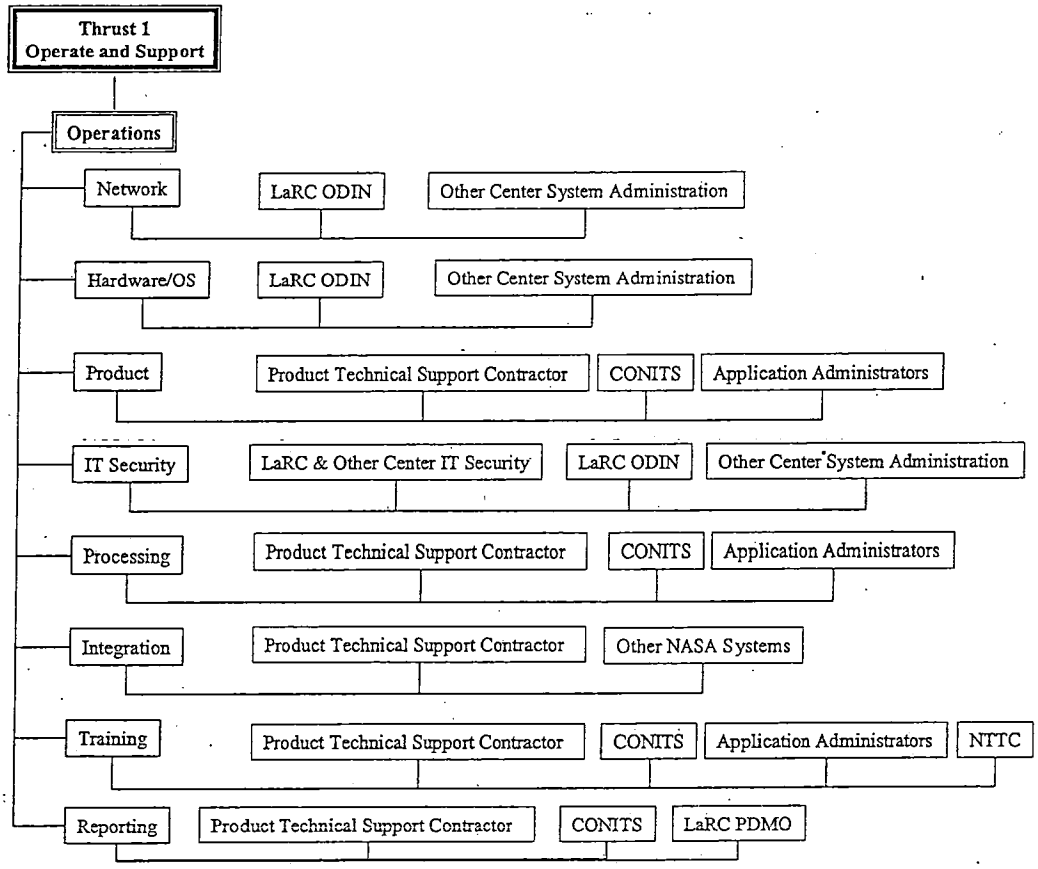


Figure 12 – Organizational Support of Thrust 2 and 3, Engineering.

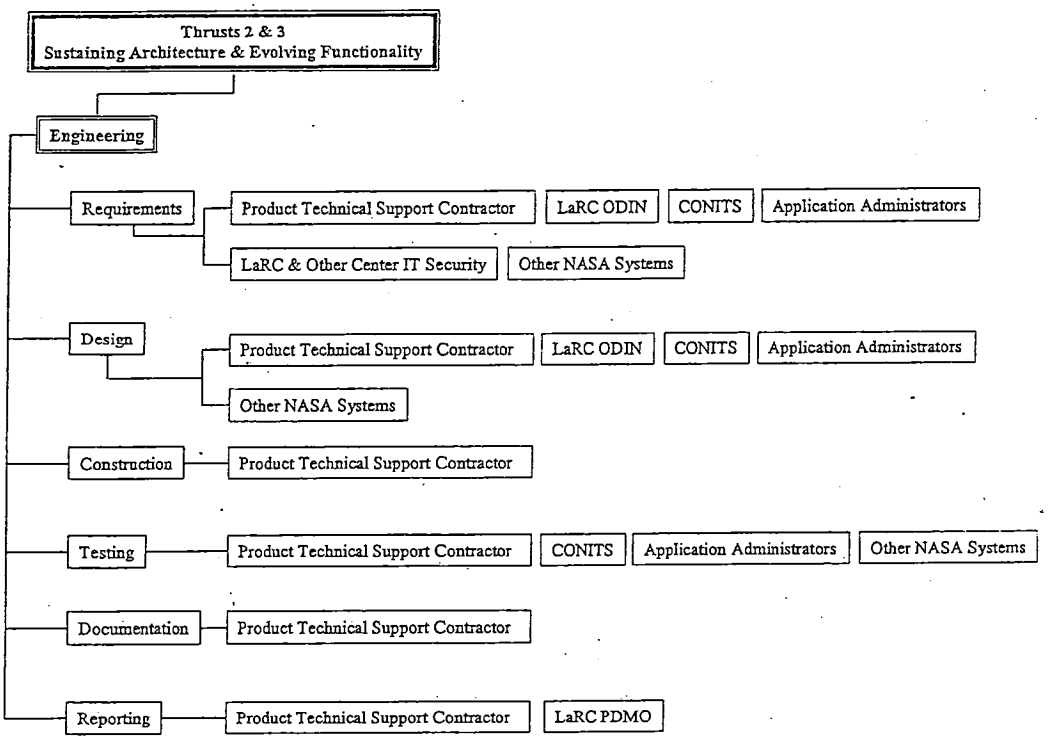
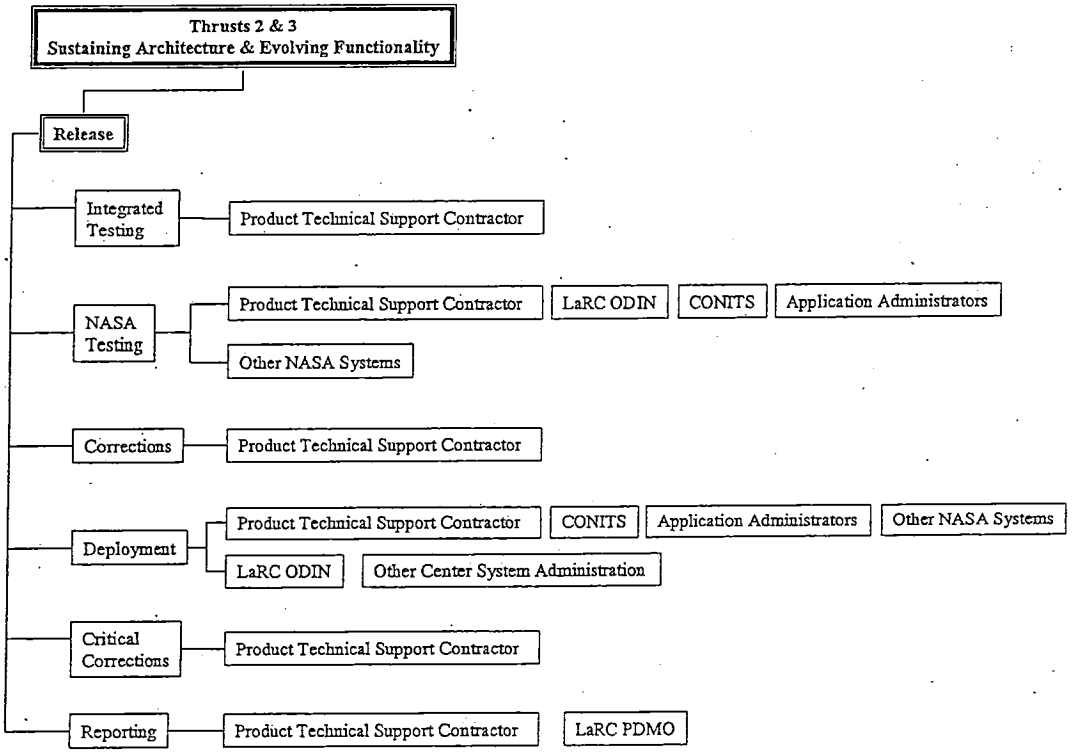


Figure 13 – Organizational Support of Thrust 2 and 3, Release.



To facilitate timely information to the broad customer base and Stakeholders, copious use of the NTTS web site shall be employed. All project schedules are posted biweekly at http://ncis.nasa.gov and Webex is used to facilitate project web meetings.

As recommended in section 3, the Process Audit Committee and the Strategic Advisory Council are new elements. Otherwise there are no additional requirements for any special boards and/or committees.

There is no requirement for a resident office at contractor facilities.

6.0 Project Requirements

6.1 Technical Requirements

As provided in Section 2.2.4 – Technical Architecture, NTTS consist of several COTS products integrated together over a distributed network. This architecture represents the technical requirements for Thrust 1. Detail system, software, backup/recovery, archiving and security requirements are provided in the technical documentation and within the IT Security plans.

Technical requirements associated with Thrusts 2 and 3 shall be identified within the requirements definition phase of each associated activity.

6.2 Project Performance Requirements

As provided in Section 2.6, Project Performance Goals, NTTS performance requirements focus on Thrust 1 – Operations and Support of NTTS. Successful implementation of Thrust 1 requires the project activities to maintain system functionality as identified in Section 2.2.3 – Application Architecture and related documentation, an operation availability schedule as identified on http://ncis.nasa.gov, and data integrity procedures implemented in each release as defined in related module documentation located at http://ncis.nasa.gov.

Performance requirements associated with Thrusts 2 and 3 shall be identified within the requirements definition phase of each associated activity.

6.3 Requirements Flow Down

As presented in Section 1.3, History of the Project, there are several NASA policies, legislation, and federal regulations supported by NTTS. The tables provided in Section 1.3 are further expanded below to provide insight into which NTTS elements support or are a direct result of the identified NASA policy.

Table 9 - NASA Policies, Legislation, Federal Regulations Supported by NTTS by Element

* Denotes element was specifically designed to support noted policy.

Identifier	Title	NTTS Element
NPD 1000.1B	NASA Strategic Plan	Tech Finder* KIMS
NPG 1000.2	NASA Strategic Management Handbook	Tech Finder* KIMS*
NPD 1050.1F	Authority to Enter Into a Space Act	TechTracS
NPD 1050.1	Space Act Agreements	TechTracS
NPD 1080.1	Generate Knowledge (GK) Process	Tech Finder* KIMS* TechTracS
NPD 1440.6	NASA Records Management	TechTracS*
NPD 2091.1	Government Employee-Created Software	TechTracS* ENTRe*
NPD/G 2092.1	Royalties And Other Payments Received By NASA From The Licensing Of Patents And Patent Applications	TechTracS*

NPD 2110.1E	Foreign Access to NASA Technology Transfer Material	TechFinder KIMS TechTracS*
NPD 2190.1	NASA Export Control Program	TechTracS
NPG 2200.2A	Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information (STI)	KIMS
NPD/G 2210.1A	External Release of NASA Software	TechFinder* KIMS TechTracS*
NPD 2220.5E	Management of NASA Scientific and Technical Information (STI)	KIMS
NPD/G 2800.1	Managing Information Technology	TechFinder KIMS TechTracS eNTRe
NPD/G 2810.1	Security of Information Technology	TechFinder KIMS TechTracS eNTRe
NPD 2820.1	NASA Software Policies	TechFinder KIMS TechTracS eNTRe
NPG 3451.1	NASA Awards and Recognition Program	TechTracS*
NPD 7120.4B	Program/Project Management	KIMS* eNTRe*
NPG 7120.5B	NASA Program and Project Management Processes and Requirements	KIMS* eNTRe*
NPD 7500.2	NASA Technology Commercialization Policy	TechFinder* KIMS* TechTracS* eNTRe*
NPG 7500.1	NASA Technology Commercialization Process	TechFinder* KIMS* TechTracS* eNTRe*
Public Law 85-568	National Aeronautics and Space Act of 1958	TechFinder KIMS TechTracS eNTRe
Public Law 96-480	Stevenson-Wydler Technology Innovation Act of 1980	TechFinder KIMS TechTracS eNTRe
Public Law 96-517	Bayh-Dole Act of 1980	TechFinder KIMS TechTracS eNTRe
Public Law 99-502	Federal Technology Transfer Act of 1986	TechFinder KIMS TechTracS

		eNTRe
Public Law 101-189	National Competitiveness Technology Transfer Act of 1989	TechFinder KIMS TechTracS eNTRe
P.L. 102-245	American Technology Preeminence Act of 1991	TechFinder KIMS TechTracS eNTRe
Public Law 104-113	National Technology Transfer and Advancement Act of 1995	TechFinder KIMS TechTracS eNTRe
Public Law 106-404	Technology Transfer Commercialization Act of 2000	TechFinder KIMS TechTracS eNTRe
FAR	Government Agencies must monitor and enforce small entity contractor's reporting and use of inventions.	TechTracS eNTRe
FAR	To protect the Government's interest and the public's investment, Agencies shall maintain appropriate follow-up procedures.	TechTracS eNTRe
FAR	NASA contracts with large businesses require prompt reporting of inventions, discoveries and innovations.	TechTracS eNTRe
14 CFR 1240	Inventions And Contributions	TechTracS*

6.4 Requirements Allocations

Each NTTS server is configured to support a multi-tiered backup and recovery process. Refer to NTTS_System_Requirements located on http://ncis.nasa.gov for the most recent recommended machine configurations. All other project requirements are software related.

6.5 Project Success Criteria

Table 10. NTTS Success Elements

Success Element	Success Criteria
Thrust 1 - Cost	Support and operations costs will not exceed budget commitments by more than contingency authorizations.
Thrust 1 - Scheduled System Tasks	Scheduled tasks are performed as planned. User community notification of changes to the schedule is made, at a minimum, 24 hours before schedule modifications are performed.
Thrust 1 - Risks	Identified risk will be managed as defined in Section 17.
Thrust 1 - Functionality	Process Team Leads facilitate certification of system functionality within the Process teams.
- Completeness	System provides defined user functionality.
- Usability	NTTS has several customer channels depending on user requirements. Therefore, success within this area is determined by NTTS element. eNTRe - Any NASA employee or parties under NASA funded

	agreements can effectively navigate, deliver and acquire information from the system. TechTracS – Personnel within Center and HQ Technology Transfer Offices and Patent Counsel Offices can effectively navigate, deliver and acquire information from the system. KIMS - NASA managers, technologist, researchers can effectively navigate, deliver and acquire information from the system. TechFinder – The U.S. Public and individuals of private companies, universities and other government entities can effectively navigate, deliver and acquire information from the system. NCIS Support - Personnel within Center and HQ Technology Transfer Offices and Patent Counsel Offices can effectively navigate, deliver and acquire information from the system.
- Response Time	Response time is the elapsed time between the end of an inquiry or demand on a computer system and the beginning of a response. Three of the four NTTS components and the NTTS support component are web based; eNTRe, KIMS, TechFinder, and NTTS Support. For web based interfaces, supported response time is defined as general acceptable response time for web applications. TechTracS is a client-server application and supports response times defined as acceptable for mid-range client-server applications.
- Accessibility	All NTTS web components can be accessed using computers with configurations equivalent to Langley's ODIN GP 1 Seat configuration. See http://www.odinlarc.com for current configuration. TechTracS can be accessed using a computer with configurations equivalent to the desktop configuration published in NTTS_System_Requirements located on http://ncis.nasa.gov.
Thrust 1 - Availability	
- Scheduled Operations	Core window of operations is 8 AM to 8 PM. Average annual operations are 24 x 7 with 95% coverage.
- Return to Service Time	During the core operations window, any operational component shall be restored to service within eight hours of notification. Exceptions include hardware issues outside of project control and software issues dependent on COTS software vendor resolution.
Thrust 1 - Data Integrity	Information errors introduced by the system are managed within 8 hours of notification. Error resolution plans are executed as recommended.
Thrust 1 - Security	Data is protected from unauthorized alteration, deletion or interception as stated in the IT Security Plan.
Thrust 2	Thrust 1 functionality is maintained.
Thrust3	Stakeholders, functional requirements, and process teams are identified to ensure effective identification of system requirements.

Section 2.5 defines the relationship between program and project objectives

7.0 Project Technical Summary

7.1 Project Technical Description

As defined in section 2.2.4, NTTS has an established technical architecture. This architecture shall be maintained using the ODIN 3-year refresh schedule for hardware and annual software licensing from various vendors. Activities in Thrust 2 and 3 will result in modifications to the existing architecture and changes to the existing technical architecture will be determined as part of the requirements definition process of these activities.

7.2 Facilities

The NTTS systems located at Langley are located in room 140 in building 1229 and in ODIN server room(s) in building 1268. Standard Langley network and phone systems are used. Rooms containing NTTS systems have restricted card key access. Locations of systems at other Centers follow the guidelines provided in the NTTS Operation Guidelines. The NTTS test environment is located at the TSC's site.

7.3 Operations Concept

The customer mapping to NTTS components, the application architecture, the technical architecture, and the scheduled operations processing all combine to form the operations concept of NTTS. See section 2.2 – Thrust 1 for further information.

7.4 Logistics Concepts

Acquisition of hardware, software and contract services are provided using the most cost effective vehicle meeting NTTS requirements. Table 11 provides the refresh cycle for the associated items.

Table 11. Logistics Refresh Schedule

Langley Research Center	
Hardware	ODIN Refresh Cycle
Software	Annual Software License Agreements
Technical Support	5 Year Contract
System Administration	ODIN Annual Seat
Application Administrator	Annual Purchase Request
Other NASA Centers	All elements are provided as determined by the Center Technology Transfer Office using the NTTS Operation Guidelines.

The IT Security Risk Assessment performed in May of 2000 recommended centralization for improved security. Activities in Thrust 2 will re-assess the IT security risk within the current system configuration. Thrusts 2 and 3 may identify the need to relocate distributed services to a central location and remove the logistics requirements at other Centers.

7.5 System Constraints

NTTS contains Privacy Act Information and information that has been determined to be sensitive and proprietary. The NTTS IT Security Plans and system documentation provides information on how NTTS information is protected.

7.6 Project Life Cycle

The NTTS Project supports the operation of an on-going system and therefore an end of project date has not been identified. Elements within Thrusts 2 and 3 have defined schedules. See Section 9 – Project Schedules for more information on defined elements.

7.7 NTTS Test Environment

The NTTS Test Environment is maintained at the technical support contractor site. The Test Environment was designed to emulate the production environment with a reduced set of Center systems. The Test Environment consists of two center TTS systems, an Agency TTS system, the public TTS system, the KIMS system and all related web services. The Test Environment is secured by its own firewall. A public test dataset is maintained. Copies of production data may be used if requirements testing mandates said use. Access to the Test Environment is provided to selected users as required for NASA testing. The Project Manager approves access to the Test Environment.

7.8 Analyses and Reporting of Project Results

The Core Process Teams, External Points of Contact, the Process Audit Committee, and the ITTP Director review project results. The Project Manager facilitates project reviews. Results of reviews are provided to ITTP Director as part of the quarterly project reviews and to the Strategic Advisory Committee in the annual reviews.

Table 12 - NTTS Review Schedule

Review Title	Participants	Frequency	Review Period
Requirements Definition	Core Process Teams External Points of Contact Process Audit Team Member	Upon Scheduled Delivery	1 week
Detail Design	Core Process Teams External Points of Contact Process Audit Team Member	Upon Scheduled Delivery	1 week
System Testing	Core Process Teams External Points of Contact Process Audit Team	Scheduled upon completion of Integrated Contractor Testing	2 weeks
Process Audit Review	Core Process Teams External Points of Contact Process Audit Team	1 Month After Release	1 week
Project Review	ITTP Head Process Audit Team PDMO Head	Quarterly	1 day

7.9 Asset Disposition

The NASA equipment management process and ODIN seat process is employed for asset disposition.

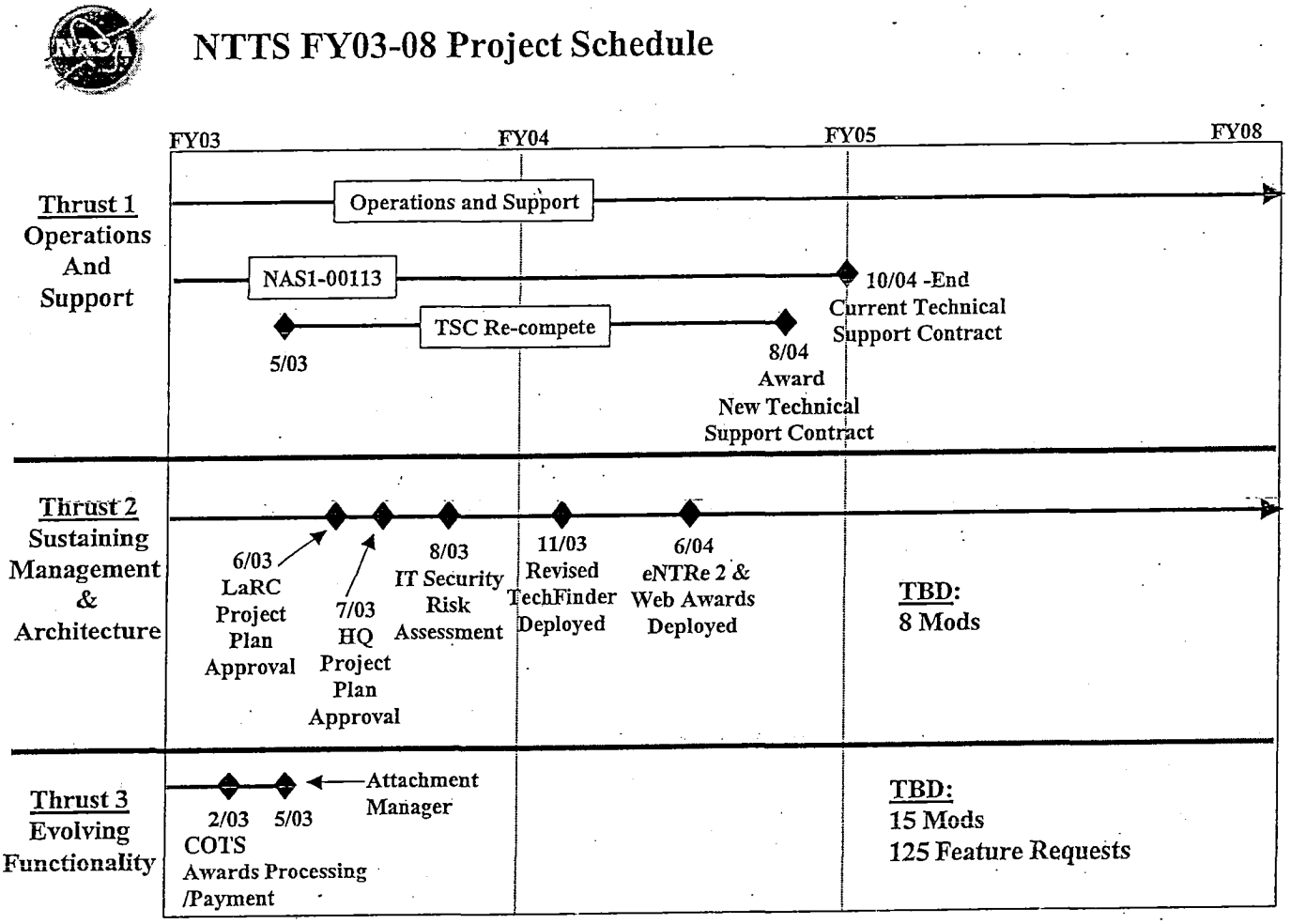
8.0 Project Logistics

As provided in Section 7.4, project logistics are covered by routine hardware and software refresh. All documentation is available on-line at http://ncis.nasa.gov. The test environment is government furnished equipment that resides at contract's site. Standard shipping is used for delivery of hardware and selected software to the contractor. Software is also delivered electronically.
Training is provided by the technical support contractor using web meetings or formal classroom settings and by the National Technology Transfer Center using SOLAR or web meetings.

9.0 Project Schedules

Figure 14 provides the overall schedule for the NTTS Project including identified major milestones. Activities in Thrusts 2 and 3 will further identify milestones for incorporation into the schedule. The current detailed schedule for identified work is available at http://ncis.nasa.gov under Documentation; Document Title is NASA_Schedule_99/99/99 where 9's represent the posting date.

Figure 14 – NTTS Project Schedule FY 03-08

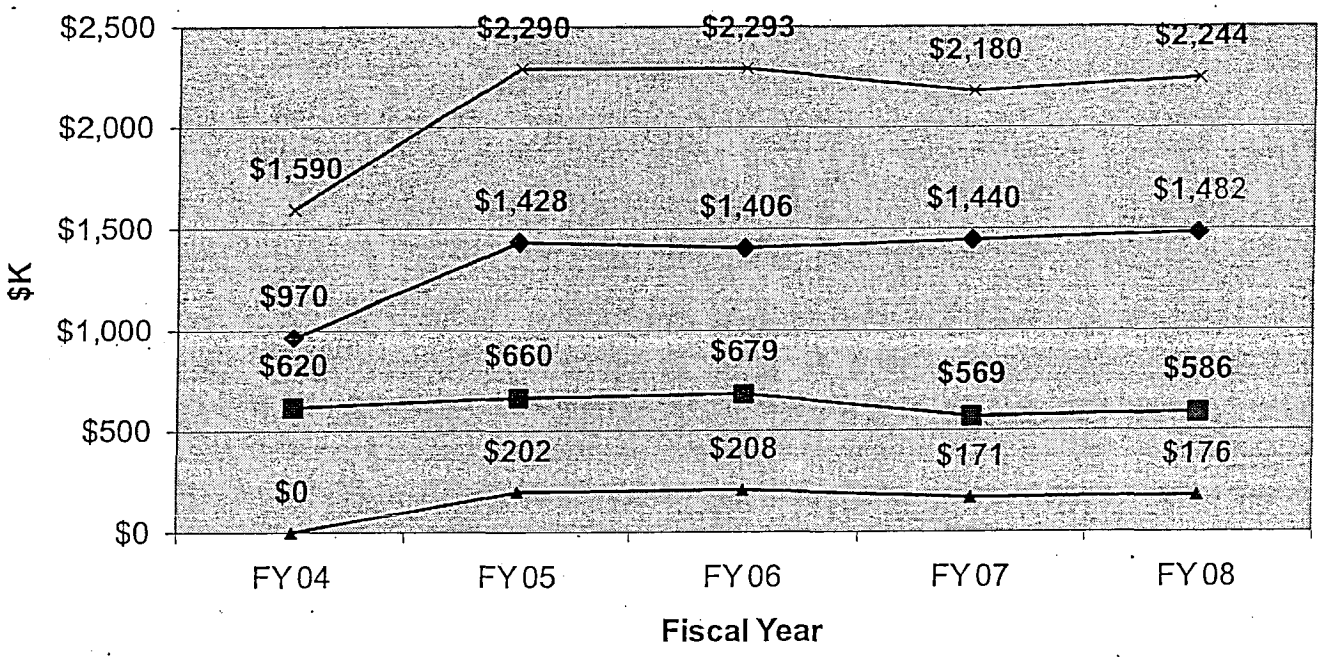


See Table 14 in Section 13 – Project Acquisition Summary for schedule of re-compete of technical support contract.

10.0 Project Resources

The funding guideline identified for FY04 is $1.5M. Given the funding guideline, a 5-year cost estimate for Thrust 1 using FY 02 and 03 Actuals and for Thrusts 2 and 3 an estimate providing base support has been developed. The estimate is a full cost estimate. Figure 16 provides a graphic representation of the cost estimate. Attachment 6 provides full detail.

Figure 15 -5-year Cost Estimate



11.0 Project Controls

Multiple levels of project control over objectives, schedule, budget, and results are recommended. Project status is reported to the LaRC PDMO Head monthly, to the Program Director quarterly and to the Program Director and the NTTS Strategic Advisory Council on an annual basis. Additionally, as described in Section 7.8 - Analyses and Reporting of Project Results, project results are reviewed by the Core Process Teams and/or External POC's and validated by the NTTS Process Audit Committee as required. The Program Director must approve any changes to the prioritization of the high-level milestones or the project scope. The Project Manager manages project budget reserves and establishes and allocates reserves consistent with risk and schedule requirements.

Table 13 – Approval Authority Matrix

Activity/Approving Authority	**EAA (OAT)**	**Program Director**	**LaRC Center Director**
Technical Performance Parameters		x	
Cost Performance Parameters		x	
Schedule Performance Parameters		x	
Funding By Year	x	x	
Success Criteria		x	
Program Requirements		x	
Project Objectives		x	
Management Structure		x	x

12.0 Project Implementation Approach

12.1 Implementation Approach

The NTTS Project will manage and implement activities in Thrust 1 through acquisition of services and products (Section 13 – Project Acquisition Summary), execution of identified operational procedures (http://ncis.nasa.gov Technical Support Operational Procedures and SOW of Technical Support Contract), and status reporting (Section 3.3 – Communication Plan).

Activities in Thrusts 2 and 3 will follow the established development and implementation process identified in Section 5.3 and status reporting identified in Section 3.3 – Communication Plan.

12.2 Project Work Breakdown Structure

See Section 5.1, Figure 8 for the NTTS WBS.

13.0 Project Acquisition Summary

NTTS acquisitions fall into three areas; hardware, software, and services.

13.1 Hardware Acquisition

Acquisition within Thrust 1 is performed through ODIN standard seat configurations with minor seat augmentation for expanded disk space. The hardware refresh schedule is 3 years.

The test environment consist of government owned equipment purchased through a small acquisition purchase. A 3-5 year refresh will be employed for the test environment.

Activities in Thrust 2 and 3 will change the hardware configuration of NTTS. Hardware purchases will be identified as part of the requirements process. It is anticipated that ODIN will be used for the production hardware and small acquisition purchases for the test environment.

13.2 Software Acquisition

Operating system software is provided as part of the ODIN seat. Application software is acquired through annual software licensing agreements or routine update purchases. Thrust 1 application software consists of the following items.

- 4D
- MS SQL Server
- Cold Fusion
- WebDav
- SSL
- Apache
- ARCIMS
- SuperReport

Activities in Thrust 2 and 3 will change the software configuration of NTTS. Software purchases will be identified as part of the requirements process. Agency and Center site licenses will be used as available.

13.3 Services

Technical support and application administration support is procured through contracts. The technical support for NTTS is provided by a 5-year cost-reimbursable contract that is scheduled to end by 10/04. The following high-level schedule has been identified to continue the technical support of NTTS. Due the undefined requirements in Thrusts 2 and 3, a cost-reimbursable contract will be used.

Table 14 – High-level Technical Support Acquisition Schedule

Activity	Date
Initial Meeting with LaRC Procurement	5/28/2003
Targeted Contract Start Date	8/2004
Transition Period	8 – 9 /2004
Completion Date of Current Contract	10/2004

Application administration support is currently acquired from LaRC's CONITS contract. Acquisition consists of annual purchase requests.

14.0 Project Dependencies

The NTTS has dependencies in three areas; other Center Support, Other NASA System Interfaces and External NASA Interfaces.

14.1 Other Center Support

The current configuration of NTTS is distributed to each Center. To support this distributed configuration an Operational Guideline was established in October 2000. See NTTS Operation Guidelines on http://ncis.nasa.gov under Documentation. Additionally as stated in Section 1.7 – NASA Centers, NPG 7500.1 further defines Center responsibilities associated with NTTS.

Activities in Thrusts 2 will centralize the configuration of NTTS. This will result in a reduced responsibility for server hardware and administration by the other Centers.

14.2 Other NASA System Interfaces

NTTS interfaces with several other NASA systems (ONS). Table 15 below provides the system name, expected data flow, and frequency. Further information on what fields are transmitted between the systems can be found in the documentation section of http://ncis.nasa.gov.

Table 15 – NTTS Interfaces to Other NASA Systems

Other NASA System	Data Flow	Frequency
Technology Inventory	Meta-data Input to NTTS Search Results Output	Annual Input Real-time Output
ERASMUS	Selected Data Input to NTTS Detail Record Updates	Quarterly
SBIR	Meta-data Input to NTTS Search Results Output Detail Record Updates	Quarterly
IFMP	Selected Data Output to ONS	Biweekly
STI	Meta-data Input to NTTS Search Results Output	Annual Input Real-time Output
MFI	Meta-data Input to NTTS Search Results Output	Annual Input Real-time Output
HQ FACS	Selected Data Input to NTTS Detail Record Updates	Monthly
NPPS	Selected Data Output to ONS	Biweekly
Center Web Sites	Selected Data Output to ONS Web Page Output to ONS	Real-time

14.3 External Interfaces

Table 16 provides the NTTS interfaces with external entities.

Table 16 – External Interfaces

Entity	Data Flow	Frequency
Annual Department of Commerce Metrics	Output Report to DOC	Annual
External data source – maps & zip codes/Congressional districts	Input Data to NTTS	Weekly
DTIC	Output Data to DTIC	As Requested
AIAA	Output Data to Public	Monthly

	Server	

15.0 Project Agreements

Currently there is an Interface Definition Agreement (IDA) between NTTS and NPPS. There are no written agreements with the Other NASA Systems. Under Thrust 2, the Project Manager will use the NPPS IDA as a standard for developing IDA's with the Other NASA Systems listed in Table 15 except for Center web sites. All agreements shall be concluded with the authority of the Project Manager. IDA's are available at http://ncis.nasa.gov under documentation.

There are several agreements with entities external to NASA. Table 17 provides the agreement partner, purpose of agreement, and NASA Signing Official.

Table 17. Partnerships with Entities External to NASA

Partner	Purpose	NASA Signing Official
Knowledge Sharing Systems, Inc.	Software Rights	LaRC
Defense Technical Information Center	Information Sharing	ITTP Program Director
AIAA	Information Sharing	ITTP Program Director

16.0 Project Safety And Mission Success

NTTS uses a three-tiered backup and recovery process: real-time logging, application backup, and nightly backups. NASA has determined an 8-hour downtime is acceptable for recovery from system failure. Recovery order is real-time logs, then application backup and finally nightly backups. A fourth option is available for the agency systems for 90% of the data; Center information would be re-transmitted to populate the agency systems. Monthly archiving is also used for all Agency systems.

Quarterly snapshots are taken of the AW-NTTS and saved to CD with a single user interface. These are available at HQ and Langley.

Source code is backed up on the LaRC and KSC servers each release. In addition to the TSC backup process, the development source code is backed up to ncis.nasa.gov weekly.

17.0 Project Risk Management

Under Thrust 2 activities a Risk Management Plan that establishes the methods of collecting, analyzing, handling, and monitoring risks throughout the lifecycle and functions of the NTTS Project will be developed and implemented. Roles and responsibilities for each level of project risk management as well as standard processes and techniques for identifying, analyzing, planning, tracking, and controlling risks will be documented.

Project level risks will be identified, analyzed, tracked, and reported by the Project Manager and the Technical Support Team. The Process Audit Committee will perform reviews and assessments of the NTTS Project to provide an objective, external source of potential risks and recommended mitigation activities.

The Project Manager and the Process Audit Committee prioritizes NTTS risks and determines the top risks, which will receive expanded management scrutiny. As part of periodic status reporting, the NTTS Project Manager will communicate the status of risk management activities to the ITTP Program Director and LaRC PDMO Head.

Table 18 maps identified categories of risk to specific risk areas within project elements.

Table 18 – NTTS Categories of Risk

Category	Overall Project	Thrust 1	Thrust 2	Thrust 3
Cost	-New mandates - Program Evolutionary Period	- ODIN Termination - IT Security - Obsolescence / Unsupportable	-Transition Phase - Sustainability of Current Functionality	- Requirements Out of Project Scope
Schedule of Tasks	-Loss of Funding -New mandates - Program Evolutionary Period	-External Data Availability - Component Downtime - Loss of Key Personnel	-Transition Phase -TSC Scalability	-New Mandates -Definition of New Stakeholders /Functionalities
Usability	-New mandates	- Thrust 3 Integration	-Sustainability of Current Functionality -Transition phase	-Definition of New Stakeholders /Functionalities
System Availability	-New mandates	- Obsolescence / Unsupportable - ODIN Termination - Thrust 3 Integration	- TSC Scalability -Transition Phase	
Data Integrity	- New mandates	- External Data Integrity - IT Security	-Sustainability of Current Functionality - TSC Scalability	- Integration of New Functionalities
Key Personnel	- Lack of Reserve Project Management	-TSC Stability - Center Application Administrator Availability	- TSC Capability Scope	- Process Lead Availability
System Advocacy	- Loss of Stakeholders	- Process Lead Availability		

18.0 Environmental Impact

No environmental impacts have been identified.

19.0 Test And Verification

Section 5.3 provides the description of NTTS test and verification activities.

20.0 Technology Assessment

At the time of NTTS' origination, there was no single COTS that satisfactorily met all of NASA's technology transfer and intellectual asset management requirements. Consistent however with NASA's technology planning guidelines (see NASA Technology Plan), NTTS has emphasized the utilization of COTS elements as a priority. NTTS' primary core is based on the use of a COTS RDBMS as well as the integration of other COTS products to provide the current end to end user environment. Ongoing technology evaluations continue to identify COTS products and methods that can potentially be integrated into NTTS to further improve user satisfaction.

Technology assessment will continue to be a major part of the NTTS Project in Thrusts 2 and 3. This study will revisit the suitability of available COTS and/or the further integration of COTS as potential alternatives for Thrusts 2 and Thrust 3.

21.0 Commercialization

Relying on COTS tools and products does not necessarily preclude the "innovative" integration and application of those COTS items. Consistent with NPD/G 7500, the NTTS Project has strongly encouraged the reporting and application of technological innovations. To date, the project has reported over 6 New Technology Reports. Two technology transfer MOA's are in place with the TSC. The NTTS Project has also reported a commercial success story as a result of it innovations. (See http://technology.nasa.gov/scripts/nls_ax.dll/w3SuccItem(202395))

Recent strategic guidance has emphasized the utilization of "innovative technology transfer partnerships" in meeting NASA's technology objectives. Activities in Thrust 2 will reflect this emphasis and will strive to identify a range of "technology partnering" alternatives.

22.0 Reviews

22.1 Project Status

Project status reviews provide formal reporting on cost, schedule, performance and technical elements. Additionally strategic guidance and issue resolution will be addressed during project reviews. Reporting is provided to the 2nd WBS level. The Project Manager will maintain the archival of project reports.

The following project reviews will be held.

1. Technical Support Contractor Schedule Review-- Biweekly
2. Technical Support Contractor Technical Review – Quarterly
3. LaRC PDMO Overall Status – Monthly
4. Process Audit Committee Overall Status - Monthly
5. ITTP Director Project Review– Quarterly
6. Strategic Advisory Council Overall Status – Annual

22.2 Customer Meetings

Customer meetings are held as required to identify requirements, review RDD's and DDD's, perform NASA Testing, provide application training, and for issue resolution.

See Section 3.3 – Communication for more information on meetings.

23.0 Termination Review Criteria

The NTTS Project supports an operation of an on-going system and therefore an end of project date has not been identified. The requirement for termination shall be identified by the ITTP Director. Upon notification of termination, a termination plan will be developed.

NASA Technology Transfer Systems
Process documentation for TechTracS and KIMS Annual User Account Review

Policy: Annually, TechTracS (TTS) and KIMS user accounts will be surveyed for use within the year. If a user has not accessed the systems within a year, the user will be notified twice via e-mail, then the account will be terminated.

Process:

1) NASA Technology Transfer System (NTTS) Technical Support Contractor (TSC) will access the user tables in TTS and KIMS and will formulate a list of users who have not accessed the databases in the past year.

2) TCS will send an Email to the user indicating their account has been unused for the year and requesting that the user respond whether the account is still required. The Center NTTS Application Specialist (AS) shall receive a CC of email. See text of Email below (Email 1, First notice).

3) If a response to the Email 1 request is not received within one week, a second Email request will be sent to the user and cc to AS indicating that the user's account shall be terminated within a week of Email 2 send date. See text of Email below (Email 2, Second notice)

4) After a week has passed and if the user has not responded to Email 2, the account shall be deleted and user's name and information will be logged on the Account Deletion spreadsheet. This spreadsheet will be maintained and filed to document the account removal.

E-mail 1, First notice:

NASA Technology Transfer Systems (NTTS) is reviewing the current user account list to *(list systems to which user has access, such as KIMS, the Knowledge Integration and Management System or NASA TechTracS (TTS)*), which provides NASA enterprise, center and program managers up-to-date information on the technology transfer status of their activities.

It is noted that it has been over a year since you have logged into *(KIMS/TTS or both)*. Our policy is to terminate accounts of users who no longer require access to the data.

Therefore, if you would like to keep your access to *(KIMS/TTS or both),* please respond back to this e-mail within a week of the send date.

We appreciate your assistance as we strive to maintain an accurate and up-to-date list of users to the data. Feel free to call or e-mail the NTTS Help Desk if you have any questions.

NTTS Help Desk
919-790-9895 (option 2)
nttssupport@larc.nasa.gov

E-mail 2, Second notice:

FINAL NOTICE

This the final notice on the status of your account(s) in the NASA Technology Transfer Systems (NTTS) – *(KIMS/TTS or both)*. Our policy is to terminate accounts of users who no longer require access to the data.

Since it has been over a year since you have logged into *(KIMS/TTS or both)* systems and you have not responded to our previous e-mail request, your account will be terminated effective _____. If you wish to keep your account access, please respond to this e-mail immediately.

If your account access is terminated and at a later date, you require access, you will simply need to complete the user account

We appreciate your assistance as we strive to maintain an accurate and up-to-date list of users to the data. Feel free to call or e-

NTTS Help Desk
919-790-9895 (option 2)
nttssupport@larc.nasa.gov

NASA Technology Transfer Systems (NTTS)
User Account Request Form Instructions

	1) Save the User Account Request Form to your hard drive and fill in the required information shown below: *User Type (Civil Servant or Contractor)* *First and Last Name* *Phone Number* *Email Address* *Center* ***If Civil Servant:*** *Organization Code* ***If Contractor:*** *Employer and Contract Number* Current job/assignment description
Terms	1) Read the Terms information 2) Fill in the following information: *Technology Transfer Office (TTO) Representative Name* *TTO Representative Phone Number* ***If Contractor:*** *Contracting Officer Technical Representative (COTR) Name* *COTR Phone Number* *COTR Organization Code*
Account Request	1) Select if you are requesting a New Account, to Delete an Account or to make Changes to an existing Account. Details for changes to an existing account (i.e. password resets, change in Category, etc) should be noted in the Account Change Comments field.
Signature	1) Print out completed User Account Request form. 2) Sign and Date the Account Request. Forward request to your Center's NTTS Application Specialist.

Note: **User must have NTTS form filled out and signed prior to activation of new account(s)**

NASA Technology Transfer System (NTTS)
User Account Request Form Instructions

User Information

1. Save the User Account Request Form to your hard drive and fill in the required information.

Terms

1. Read the Terms Information.

Account Reque st

1. Select if you are requesting a New Account, to Delete an Account or to make Changes to an existing Account.
   Details for changes to an existing account (i.e. password resets, change in Category, etc) should be noted in the Account Change Comments field.
2. Questions regarding account access shall be submitted via email to nttssupport@nttsmail.larc.nasa.gov .

Signature

1. Print out completed User Account Request Form.
2. Sign and Date the Account Request. Forward request to your Center's NTTS Application Specialist.

NASA Technology Transfer System (NTTS)
User Account Request Form

User Information

User Type (Please Select One): Civil Servant ☐ Contractor ☐	
First and Last Name:	**Phone Number:**
Email Address:	**Center:**
If Civil Servant, **Organization Code:**	**If Contractor,** **Employer Name:** **Contract Number:** **COTR Name:** **Phone Number:**
Current Job/Assignment Description:	

Terms

The NASA Technology Transfer System (NTTS) contains Government and Company proprietary info rmation. In requesting a user account and by accessing NTTS, I acknowledge and understand that I am bound by the following terms and conditions.

1. Sharing of user accounts and passwords is prohibited.
2. User passwords shall conform to the guide lines in NPG 2810.1.
3. Information within NTTS cannot be extracted for redisplay in other information systems.
4. Disclosure of any information from NTTS to a non -NASA employee or to a NASA -employee outside of the scope or responsibilities of my current duties must be approved by the Technology Transfer Office (TTO) Representative listed below.
5. I understand that unauthorized disclosure of any information in NTTS may subject me to administrative action and/or criminal prosecution.

TTO Re presentative: _____

TTO Phone Number: _____

Account Request

Please Select One :

New Account ☐ Delete Account ☐ Account Change ☐

Account Change Comments (i.e. current job/duties change):

Sign

_____ _____

User Signature Date

NASA Technology Transfer Systems (NTTS)
User Account Request Form Signoff Sheet Instructions
(For Application Specialist Use only)

User Information	1) Receive **signed** copy of *NASA Technology Transfer Systems User Account Request Form* from User. 2) Fill out the User Information from the User's Request Form.
Account Setup Specification	1) Confirm the user requesting an account is valid. 2) Determine the user's Category based on their Current Job/Assignment Description and check all categories that apply.
Signature	1) Sign and Date the Account Request. 2) Fax the completed Signoff Sheet and the User's Account Request Form to Tech Support, (919) 850-0851. 3) Send an email confirmation to user that their request is being processed. 3) File the Signoff Sheet and the User Account Request Form for future reference

Note: **User must have NTTS form filled out and signed prior to activation of new account(s)**

NASA Technology Transfer Systems (NTTS)
User Account Request Form Signoff Sheet
(NTTS Application Specialist Signoff Sheet)

User Info

First and Last Name:

Center:

Account Setup Specifications

Categories *(Select all that apply)*

NTTS Application Specialist	☐	NASA Patent Admin	☐
Award Liaison Admin	☐	NASA Patent Attorney	☐
Award Liaison Officer	☐	NASA Technology Transfer Project Admin	☐
Export Control Officer	☐	NASA Technology Transfer Project Manager	☐
Inventions and Contributions Board	☐	SBIR / STTR	☐
ITTP Metrics Team	☐	Software Release Authority	☐
NASA Management	☐	Success Story Team	☐
NASA New Technology Representative	☐	TT Support Contractor	☐

Other Category (Please Specify):

Please note any exceptions to a user's account setup (i.e. if Read only access is needed):

Signature

_____ _____

NTTS Application Specialist Signature Date

Description of Categories

Category	Description
NTTS Application Specialist	Establish data collection, entry, and verification methods and standards; develop key management performance reports regarding TechTransfer IP Management; serve a process auditors; and train other employees as users of the NTTS. Maintain system constants table parameters and list management.
Award Liaison Admin	Provides entry of award information and reporting support to Award Liaison Officer.
Award Liaison Officer	Administers and processes Space Act Awards. Entry and reporting of award information.
Export Control Officer	Reviews and approves technologies for Software Release.
Inventions and Contributions Board	Headquarters processing of Space Act Awards and waiver processing.
ITTP Metrics Team	Develops and reports on performance and benefits metrics for ITTP.
NASA Management	NASA's organizational structure encompasses corporate, Agency wide management and the management of NASA's Strategic Enterprises. Agency management is responsible for Agency leadership, the development of NASA's strategy and the integrated management of the Strategic Enterprises. Enterprise Management is responsible for program results: Setting Enterprise priorities and strategies for achieving program definitions. Managing their technology assets. Ensuring that appropriate technology transfer processes are incorporated and maintained.
NASA New Technology Representative	Conducts NTR Processing.
NASA Patent Admin	Provides data entry and reporting support to the NASA Patent Attorneys in support of the ITTP mission.
NASA Patent Attorney	Duties include: Prepare patent applications, amendments, continuation-in-part applications, appeal briefs, affidavits and other supporting documentation relating to patent prosecution. Provide legal review of nonexclusive and exclusive licenses and space act agreements with non-governmental parties on NASA-owned patented and non-patented technology. Coordinate technology transfer activities with other Technology Transfer teams. Conduct 305(c) evaluations and 305(d) recommendations. Determine the extent of the Government's and employee's property rights in each reported invention. Review waiver petitions filed by contractors and proposed contractors and make recommendations to the NASA Inventions and Contributions Board. Make determination of Center position concerning infringements and recommend course of action to be followed by Government. Determine type of data rights clauses to be included in Government contracts and give advice concerning their construction and application. Review non-disclosure agreements and software licenses. Provide legal advice concerning trademark, trade secret, and copyright issues.
NASA Technology Transfer Project Admin	Provides data entry and reporting support to the NASA Technology Transfer Project Managers in support of the ITTP mission.

Description of Categories

Category	Description
NASA Technology Transfer Project Manager	Facilitate the transfer of developed technologies. Processes to be used include: Interact and establish communications with industry representatives in specific technical areas. Advertise developed technologies as available for transfer using dissemination identifier tools. Write one-page technology summaries and develop color graphics. Develop joint projects with American companies/industries to further develop and transfer technologies. Formalize these joint activities with Memoranda of Agreement (MOA's) using Space Act authority. License patented and copyrighted technologies. Follow up, process and respond to inquireies on NASA Technology and documentation on licenses and MOA activities. Record performance metrics and make periodic reports to Tech Transfer management. Publicize the technology transfer successes using identified dissemination tools. Help other team members, improve processes, and communicate.
SBIR / STTR	Activities include identification of new technologies and reporting of success stories. To facilitate the technological innovation as defined by the SBIR/STTR Program business participation in federal R&D. To increase private sector commercialization of innovations derived from federal R&D.
Software Release Authority	Reviews and approves technologies for Software Release.
Success Story Team	Reviews and posts Technologies that have been successfully commercialized on the TechFinder website. Identifies, develops and reports on successful Technology Transfer activities.
TT Support Contractor	Supports TT Project Manager by identifying potential TT partners publicizing NASA technologies and licensing opportunities and Success Story Team activities

NASA Technology Transfer Systems (NTTS)
Tech Support setup of new User Account

1) Receive **signed** and completed *NASA Technology Transfer Systems - User Account Request Form Signoff Sheet*

2) Create user account(s) and add user to NTTS Groups per corresponding User Categories. See Categories and NTTS Groups table for classification list.

2a) The standard setup for the User Name login is the user's First and Last name.

3) Once Categories are identified, see the Table Accessibilities tabs for the Read and Read-Write permissions for the User Categories.

4) Contact user regarding their new account(s) via email and inform of temporary password.

4a) In the event that a user requests a password reset, send an email with the following info:

Subject: *"Information you requested"*
The Body of the email:
"Your requested password has been reset to _____"
"Note that this is a temporary password and that you will be prompted to change your password once logged in."
*** Make sure 'Change Password' is checked in the User table

5) Send an email to user's Center NTTS Application Specialist and CC LaRC NTTS Application Specialist that new account has created for user.

User Categories ==>

NTTS Groups	Applications Specialist	Award Liaison Admin	Award Liaison Officers	Export Control Officer	Inventions and Contributions Board	ITTP Metrics Team
Develop						
4D_Write	X	X	X		X	
Agent						
Alt Views TT	X	X	X	X	X	X
Alt Views Pat						
DBA						
Delete	X					
Guest						
Classified		X	X			
AWRelease/ Success						
AWRelease/ Technology						
AWRelease/ License						
Public/ Technology						
Public/ TOPS						
Public/ Success						
Public/ License						
Public/ Contract						
DataDict						
NoReport						
PCApproval						
NTRView	X	X	X	X	X	X
*Center*TTO	X	X	X	X	X	X
Center Patent						

NTTS Groups	Applications Specialist	Award Liaison Admin	Award Liaison Officers	Export Control Officer	Inventions and Contributions Board	ITTP Metrics Team
AWRelease/						
Partnerships						
Software Release				X		
***Center* Pat Stats**						
PMC/Program						
ALOMembers						
ICBMembers						
ICBModifier						
People Keywords and Types	FACS_load, CTO metrics, AW metrics, PR email release Center, AW, NTAS,				ICB POC	CTO metrics, AW metrics
NTTS Systems to setup	KIMS	AW	AW, KIMS	Center	AW, KIMS	Center, AW, KIMS

NTTS Groups	NASA Management	NASA New Technology Representative	NASA Patent Admin	NASA Patent Attorney	NASA Technology Transfer Project Admin	NASA Technology Transfer Project Managers
Develop						
4D_Write		X	X	X	X	X
Agent						
Alt Views TT	X	X			X	X
Alt Views Pat			X	X		
DBA						
Delete		X	X		X	
Guest						
Classified		X	X			
AWRelease/						
Success			X		X	X
AWRelease/						
Technology			X		X	X
AWRelease/						
License			X		X	X
Public/						
Technology			X		X	X
Public/						
TOPS			X		X	X
Public/						
Success			X		X	X
Public/						
License			X		X	X
Public/						
Contract			X		X	X
DataDict						
NoReport						
PCApproval			X	X		
NTRView	X	X	X	X	X	X
*Center*TTO	X	X			X	X
Center Patent			X	X		

NTTS Groups	NASA Management	NASA New Technology Representative	NASA Patent Admin	NASA Patent Attorney	NASA Technology Transfer Project Admin	NASA Technology Transfer Project Managers
AWRelease/						
Partnerships			X		X	X
Software Release			X	X		
***Center* Pat Stats**						
PMC/Program						
ALOMembers						
ICBMembers						
ICBModifier						
People Keywords and Types	CTO metrics, AW metrics, PR email release	NASA eNTRe, NT Rep	Attorney Aide	Attorney		CTO metrics, PR_email release - all centers, TTransfer POC (keyword and type)
NTTS Systems to setup	Center, AW, KIMS	NTAS, AW, Center	Center, AW	Center, AW	Center, AW, KIMS	Center, AW, KIMS

NTTS Groups	SBIR / STTR	Software Release Authority	Success Story Team	TT Support Contractors
Develop				
4D_Write			X	
Agent				
Alt Views TT	X	X	X	X
Alt Views Pat				
DBA				
Delete				
Guest				
Classified				
AWRelease/ Success	X		X	
AWRelease/ Technology				
AWRelease/ License				
Public/ Technology				
Public/ TOPS				
Public/ Success	X		X	
Public/ License				
Public/ Contract				
DataDict				
NoReport				
PCApproval				
NTRView	X	X	X	X
***Center*TTO**	X	X	X	X
***Center* Patent**				

NTTS Groups	SBIR / STTR	Software Release Authority	Success Story Team	TT Support Contractors
AWRelease/				
Partnerships				
Software Release		X		
***Center* Pat Stats**				
PMC/Program				
ALOMembers				
ICBMembers				
ICBModifier				
People Keywords and Types			PR_email release, CTO metrics	
NTTS Systems to setup	Center, KIMS	Center, KIMS	Center, KIMS	Center, AW, KIMS

NTTS Application Specialist User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones	RW	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	RW	R	License_Milestones_Chronology	RW	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	RW	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms	RW		License_Reports_Content	RW	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People	RW		License_Royalties	R	R	Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	RW-V	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	RW	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	RW	R			
Awards		R	License_Technologies	RW	R	Tech_Comm_Eval_Criteria	RW	R			
Awards_by_Innovator		R	Maintenance_Fee	RW	R	Tech_CTG_Codes	RW	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	RW	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	RW	R			
BLI	RW	R	Other_Contracts	RW	R	Tech_Org_Codes	RW	R			
CG_Chronology	RW	R	Outside_Patent_Preparation	RW	R	Tech_Program_Areas	RW	R			
CG_Related_Contracts	RW	R	Partners	RW-V	R	TOPS	RW	R			
Choice_Lists	RW		Partnerships	RW	R	TOPS_Category	RW	R			
Choice_Lists_Items	RW		Partnership_Assitance	RW	R	TOPS_Related_Technologies	RW	R			
COG	RW	R	Partnership_Chronology	RW	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	RW	R	User	RW-V	R			
Commercialization_Metrics	RW	R	Partnership_NTIS	RW	R	Waiver	RW	R			
Commercialization_Metric_Sets	RW	R	Partnership_NTRs	RW	R	WebStatistics	RW	R			
Commercial_Leads	RW-V	R	Partnership_Org_Codes	RW	R	Web_Statistics	RW	R			
Company	RW-V	R	Partnership_Program_Number	RW	R	xAudit					
Company_Chrono	RW-V	R	Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes	RW-V	R	Partners_FY	RW	R	xDisciplines					
Confirm_License	RW	R	PAT_Statistics	RW	R	xForeign_Filing					
Congress	RW	R	PAT_Stats_Month	RW	R	Xhtml					
Congressional_Districts	RW	R	People	RW-V	R	xInvNAICS					
Constants	RW-V	R	People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW	R	People_CTG_Codes	RW	R	xNTIS_Category					
Contract_Reports	RW	R	PMC_Program	RW	R	xNTIS_Subs					
Contract_Stats	RW	R	Process	RW	R	xOrg_Codes					
Corp_Tech_Group	RW	R	Products_Services	RW	R	xPeopleType					
CTG_SubGroup	RW	R	Program_Code	RW	R	xSBIR_Import					
Daily_Message	RW		Program_Office	RW	R	xSEQ					
Deletions	RW	R	PTO_Actions	RW	R	xSICIndustry					
Documents	RW-V	R	Publication	RW	R	xSICMajorGroups					
Enclosures	RW	R	Questionnaire	RW		xSICSubIndustry					
External_Application_Usage	RW	R	Questionnaire_Responses	R		xSSNTIS					
File_Type_Extension	RW	R	Quest_Responses_Feedback	RW		xSS_NAICS					
Forms	RW-V	R	Reminder_Condition	RW	RW	xTechNAICS					
GRC_Technology_Evaluation	RW	R	Reminder_Condition_Items	RW	RW	xTechNTIS					
Inquiry	RW	R	Reminder_Log	RW	RW	xTech_Codes					
Inventory	RW	R	Reminder_Task	RW-V	RW	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	RW	RW	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	RW	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	RW	R	xWebData					
KeyPeople	RW	R	Shadow	R-V	R	_ATProcessInfo					
KeySuccess	RW	R	sparexxx	R	R	_Forms					
KeyTechnology	RW	R	Structure	RW	R	_Utility					
KeyTOPS	RW	R	Subcontracts	RW	R	WEB_ComponentItems					
Keywords	RW-V	R	Success_Story	RW	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License	RW-V	R	Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology	RW	R	Success_Story_Chronology	RW	R	WEB_PageComponents					

Award Liaison Administrative User Table Access

Award Liaison Adminstrative User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	RW	License_Milestones	R	R	Success_Story_Program_Areas			WEB_Pages		
Assignment			License_Milestones_Chronology	R	R	Success_Story_Technologies			WEB_Privileges		
Assistance_Metrics			License_Reports	R	R	Technology	R-V	R-V	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royaltics	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards		RW-V	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		RW	Maintenance_Fee			Tech_CTG_Codes	R	R			
Awards_Chronology		RW	Multimedia			Tech_Innovator	R-V	R-V			
Award_Process		RW	NAICS			Tech_Maint_Fee	R	R			
BLI			Other_Contracts			Tech_Org_Codes	R	R			
CG_Chronology			Outside_Patent_Preparation			Tech_Program_Areas	R	R			
CG_Related_Contracts			Partners	RW-V	R	TOPS					
Choice_Lists			Partnerships	RW-V	R	TOPS_Category					
Choice_Lists_Items			Partnership_Assitance			TOPS_Related_Technologies					
COG			Partnership_Chronology			TOPS_WWW_References					
Commercialization_Eval_Criteria			Partnership_NAICS			User					
Commercialization_Metrics			Partnership_NTIS			Waiver					
Commercialization_Metric_Sets			Partnership_NTRs			WebStatistics					
Commercial_Leads			Partnership_Org_Codes			Web_Statistics					
Company	RW-V	R	Partnership_Program_Number			xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY			xCompany_NAICS					
Company_CTG_Codes			Partners_FY			xDisciplines					
Confirm_License			PAT_Statistics			xForeign_Filing					
Congress			PAT_Stats_Month			Xhtml					
Congressional_Districts			People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant			People_CTG_Codes			xNTIS_Category					
Contract_Reports			PMC_Program			xNTIS_Subs					
Contract_Stats			Process			xOrg_Codes					
Corp_Tech_Group			Products_Services			xPeopleType					
CTG_SubGroup			Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions			xSICIndustry					
Documents			Publication			xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition			xTechNAICS					
GRC_Technology_Evaluation			Reminder_Condition_Items			xTechNTIS					
Inquiry			Reminder_Log			xTech_Codes					
Inventory			Reminder_Task			xToolkit					
KeyCompany			Reminder_Task_Items			xWAN_Post					
KeyContract			SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership			SBIR_STTR_Technical_Report			xWebData					
KeyPeople			Shadow			_ATProcessInfo					
KeySuccess			sparexxx			_Forms					
KeyTechnology	R	R	Structure			_Utility					
KeyTOPS			Subcontracts			_WEB_ComponentItems					
Keywords			Success_Story			_Web_Contacts					
Lead_Chronology			Success_Story_Assist			_WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs			_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology			_WEB_PageComponents					

Award Liaison Officer User Table Access

Award Liaison Officer User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	RW	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards		RW-V	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		RW	Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology		RW	Multimedia	R	R	Tech_Innovator	R	R			
Award_Process		RW	NAICS	R	R	Tech_Maint_Fee	R	R			
BLI	R	R	Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	R	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	R	R	TOPS	R-V	R-V			
Choice_Lists			Partnerships	R-V	R	TOPS_Category	R	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	R	R			
COG	R	R	Partnership_Chronology	R	R	TOPS_WWW_References	R	R			
Commercialization_Eval_Criteria	R	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	R-V	R	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	R	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics	R	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	R	R	xInvNTIS					
Contract_Grant	R-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services	R	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	R	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	R	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	R	R	SBIR_STTR_Funding_Request	R	R	xWAN_Web					
KeyPartnership	R	R	SBIR_STTR_Technical_Report	R	R	xWebData					
KeyPeople	R	R	Shadow			ATProcessInfo					
KeySuccess	R	R	sparexxx			Forms					
KeyTechnology	R	R	Structure			Utility					
KeyTOPS	R	R	Subcontracts	R	R	WEB_ComponentItems					
Keywords	R	R	Success_Story	RW-V	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	WEB_PageComponents					

Export Control Officer User Table Access

Export Control Officer User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones			Success_Story_Program_Areas			WEB_Pages		
Assignment			License_Milestones_Chronology			Success_Story_Technologies			WEB_Privileges		
Assistance_Metrics			License_Reports			Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content			Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties			Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution			Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients			Tech_Comm_Activities	R	R			
Awards			Licnese_Technologies			Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator			Maintenance_Fee			Tech_CTG_Codes	R	R			
Awards_Chronology			Multimedia			Tech_Innovator	R	R			
Award_Process			NAICS			Tech_Maint_Fee	R	R			
BLI			Other_Contracts			Tech_Org_Codes	R	R			
CG_Chronology			Outside_Patent_Preparation			Tech_Program_Areas	R	R			
CG_Related_Contracts			Partners			TOPS	R-V	R-V			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	R	R			
Choice_Lists_Items			Partnership_Assitance			TOPS_Related_Technologies	R	R			
COG			Partnership_Chronology			TOPS_WWW_References	R	R			
Commercialization_Eval_Criteria			Partnership_NAICS			User					
Commercialization_Metrics			Partnership_NTIS			Waiver					
Commercialization_Metric_Sets			Partnership_NTRs			WebStatistics					
Commercial_Leads			Partnership_Org_Codes			Web_Statistics					
Company	R-V	R-V	Partnership_Program_Number			xAudit					
Company_Chrono	R	R	Partnership_Program_Number_FY			xCompany_NAICS					
Company_CTG_Codes			Partners_FY			xDisciplines					
Confirm_License			PAT_Statistics			xForeign_Filing					
Congress			PAT_Stats_Month			Xhtml					
Congressional_Districts			People	R-V	R-V	xInvNAICS					
Constants			People_Chrono	R	R	xInvNTIS					
Contract_Grant			People_CTG_Codes			xNTIS_Category					
Contract_Reports			PMC_Program			xNTIS_Subs					
Contract_Stats			Process			xOrg_Codes					
Corp_Tech_Group			Products_Services			xPeopleType					
CTG_SubGroup			Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions			xSICIndustry					
Documents			Publication			xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition			xTechNAICS					
GRC_Technology_Evaluation			Reminder_Condition_Items			xTechNTIS					
Inquiry			Reminder_Log			xTech_Codes					
Inventory			Reminder_Task			xToolkit					
KeyCompany			Reminder_Task_Items			xWAN_Post					
KeyContract			SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership			SBIR_STTR_Technical_Report			xWebData					
KeyPeople			Shadow			_ATProcessInfo					
KeySuccess			sparexxx			_Forms					
KeyTechnology			Structure			_Utility					
KeyTOPS			Subcontracts			_WEB_ComponentItems					
Keywords			Success_Story			_Web_Contacts					
Lead_Chronology			Success_Story_Assist			_WEB_CurrentUsers					
License			Success_Story_Assoc_Docs			_WEB_Objects					
License_Chronology			Success_Story_Chronology			_WEB_PageComponents					

Inventors and Contributions Board User Table Access
(Agency System)

Inventors and Contributions Board User Table Access (Agency System)	*Agency*		*Agency*		*Agency*		*Agency*
Action_Item	R	License_Milestones	R	Success_Story_Program_Areas		WEB_Pages	
Assignment		License_Milestones_Chronology	R	Success_Story_Technologies		WEB_Privileges	
Assistance_Metrics		License_Reports	R	Technology	R-V	WEB_Settings	
Associated_Forms		License_Reports_Content	R	Technology_Related_Cases	R	WEB_Themes	
Associated_Forms_People		License_Royalties	R	Tech_Additional_Documentation	R	WEB_Theme_Styles	
Attachments	R	License_Royalty_Distribution	R	Tech_Chronology	R		
Attachment_Blob	R	License_Royalty_Recipients	R	Tech_Comm_Activities	R		
Awards	R-V	Licnese_Technologies	R	Tech_Comm_Eval_Criteria	R		
Awards_by_Innovator	RW-V	Maintenance_Fee		Tech_CTG_Codes	R		
Awards_Chronology	RW	Multimedia		Tech_Innovator	R-V		
Award_Process	R	NAICS		Tech_Maint_Fee	R		
BLI		Other_Contracts		Tech_Org_Codes	R		
CG_Chronology		Outside_Patent_Preparation		Tech_Program_Areas	R		
CG_Related_Contracts		Partners	R-V	TOPS	R-V		
Choice_Lists		Partnerships	R-V	TOPS_Category			
Choice_Lists_Items		Partnership_Assitance		TOPS_Related_Technologies			
COG		Partnership_Chronology		TOPS_WWW_References			
Commercialization_Eval_Criteria		Partnership_NAICS		User			
Commercialization_Metrics		Partnership_NTIS		Waiver			
Commercialization_Metric_Sets		Partnership_NTRs		WebStatistics			
Commercial_Leads		Partnership_Org_Codes		Web_Statistics			
Company	R-V	Partnership_Program_Number		xAudit			
Company_Chrono		Partnership_Program_Number_FY		xCompany_NAICS			
Company_CTG_Codes		Partners_FY		xDisciplines			
Confirm_License		PAT_Statistics		xForeign_Filing			
Congress		PAT_Stats_Month		Xhtml			
Congressional_Districts		People	R-V	xInvNAICS			
Constants		People_Chrono		xInvNTIS			
Contract_Grant	R-V	People_CTG_Codes		xNTIS_Category			
Contract_Reports		PMC_Program		xNTIS_Subs			
Contract_Stats		Process		xOrg_Codes			
Corp_Tech_Group		Products_Services		xPeopleType			
CTG_SubGroup		Program_Code		xSBIR_Import			
Daily_Message		Program_Office		xSEQ			
Deletions		PTO_Actions		xSICIndustry			
Documents		Publication		xSICMajorGroups			
Enclosures		Questionnaire		xSICSubIndustry			
External_Application_Usage		Questionnaire_Responses		xSSNTIS			
File_Type_Extension	R	Quest_Responses_Feedback		xSS_NAICS			
Forms		Reminder_Condition		xTechNAICS			
GRC_Technology_Evaluation		Reminder_Condition_Items		xTechNTIS			
Inquiry		Reminder_Log		xTech_Codes			
Inventory		Reminder_Task		xToolkit			
KeyCompany		Reminder_Task_Items		xWAN_Post			
KeyContract		SBIR_STTR_Funding_Request		xWAN_Web			
KeyPartnership		SBIR_STTR_Technical_Report		xWebData			
KeyPeople		Shadow		_ATProcessInfo			
KeySuccess		sparexxx		_Forms			
KeyTechnology		Structure		_Utility			
KeyTOPS		Subcontracts		_WEB_ComponentItems			
Keywords		Success_Story	R-V	_Web_Contacts			
Lead_Chronology		Success_Story_Assist		_WEB_CurrentUsers			
License	R-V	Success_Story_Assoc_Docs		_WEB_Objects			
License_Chronology	R	Success_Story_Chronology		_WEB_PageComponents			

ITTP Metrics Team User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	RW	R			
Awards		R	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	RW	R			
Awards_by_Innovator		R	Maintenance_Fee	R	R	Tech_CTG_Codes	RW	R			
Awards_Chronology		R	Multimedia	R	R	Tech_Innovator	R-V	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	R-V	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	RW	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	R-V	R-V	TOPS	RW-V	R			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology	R	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R-V	R-V	Partnership_NTIS	R	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW-V	R-V	Partnership_Org_Codes	R	R	Web_Statistics					
Company	RW-V	R-V	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	RW	R-V	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics	R	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R-V	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	R	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	R	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure	R	R	_Utility					
KeyTOPS	RW	R	Subcontracts	R	R	_WEB_ComponentItems					
Keywords			Success_Story	RW	R	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

NASA Management User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones	R	R	Success_Story_Program_Areas	R	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	R	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	RW-V	R-V	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards		R-V	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	R	R	Tech_Innovator	R	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	R	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	R-V	R-V	TOPS	R-V	R-V			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	R	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	R	R			
COG			Partnership_Chronology	R	R	TOPS_WWW_References	R	R			
Commercialization_Eval_Criteria	R	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	R	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	R-V	R-V	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	R	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes			Partners_FY	R	R	xDisciplines					
Confirm_License			PAT_Statistics	R	R	xForeign_Filing					
Congress			PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts			People	R-V	R-V	xInvNAICS					
Constants			People_Chrono	R	R	xInvNTIS					
Contract_Grant	R-V	R-V	People_CTG_Codes			xNTIS_Category					
Contract_Reports	R	R	PMC_Program			xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents			Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms			Reminder_Condition			xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items			xTechNTIS					
Inquiry	R	R	Reminder_Log			xTech_Codes					
Inventory	R	R	Reminder_Task			xToolkit					
KeyCompany	R	R	Reminder_Task_Items			xWAN_Post					
KeyContract	R	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	R	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	R	R	Shadow			_ATProcessInfo					
KeySuccess	R	R	sparexxx			_Forms					
KeyTechnology	R	R	Structure			_Utility					
KeyTOPS	R	R	Subcontracts			_WEB_ComponentItems					
Keywords			Success_Story	R-V	R-V	_Web_Contacts					
Lead_Chronology	R	R	Success_Story_Assist	R	R	_WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	R	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	R	R	WEB_PageComponents					

NASA New Technology Rep User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones			Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	RW	R	License_Milestones_Chronology			Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports			Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content			Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royaltics			Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution			Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients			Tech_Comm_Activities	R	R			
Awards		R-V	Licnese_Technologies			Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	RW-V	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	RW-V	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	RW	R			
BLI			Other_Contracts	RW-V	R	Tech_Org_Codes	RW	R			
CG_Chronology	RW-V	R	Outside_Patent_Preparation	RW	R	Tech_Program_Areas	RW	R			
CG_Related_Contracts	RW	R	Partners			TOPS	RW-V	R			
Choice_Lists			Partnerships			TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance			TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology			TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	R	R	Partnership_NAICS			User					
Commercialization_Metrics			Partnership_NTIS			Waiver	RW-V	R			
Commercialization_Metric_Sets			Partnership_NTRs			WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes			Web_Statistics					
Company	RW-V	R	Partnership_Program_Number			xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY			xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY			xDisciplines					
Confirm_License	RW	R	PAT_Statistics	R-V	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	RW	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	RW	R	Process	RW	R	xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services	RW	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	RW	R	xSICIndustry					
Documents	RW	R	Publication	RW	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	RW	R	Reminder_Log	R	R	xTech_Codes					
Inventory			Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	RW	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	RW	R	xWebData					
KeyPeople	RW	R	Shadow	RW-V	R	ATProcessInfo					
KeySuccess	RW	R	sparexxx			Forms					
KeyTechnology	RW	R	Structure			Utility					
KeyTOPS	RW	R	Subcontracts	RW	R	WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License			Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology			Success_Story_Chronology	RW	R	WEB_PageComponents					

NASA Patent Admin User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	Agency
Action_Item	RW-V	R	License_Milestones	RW	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	RW-V	R	License_Milestones_Chronology	RW	R	Success_Story_Technologies	RW-V	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	RW	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	RW	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royalties	RW	R	Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	RW	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	RW	R	Tech_Comm_Activities	RW	R			
Awards		R-V	Licnese_Technologies	RW	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	RW-V	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	RW-V	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	RW-V	R			
BLI			Other_Contracts	RW-V	R	Tech_Org_Codes	RW	R			
CG_Chronology	RW-V	R	Outside_Patent_Preparation	RW	R	Tech_Program_Areas	RW	R			
CG_Related_Contracts	RW	R	Partners	RW	R	TOPS	RW-V	R			
Choice_Lists			Partnerships	RW	R	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	RW-V	R			
COG			Partnership_Chronology	RW	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW-V	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	RW-V	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	RW	R	WebStatistics					
Commercial_Leads	RW	R	Partnership_Org_Codes	RW	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	RW	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	RW	R	xDisciplines					
Confirm_License	RW-V	R	PAT_Statistics	R	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	RW	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	RW	R	Process	RW	R	xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services	R	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	RW-V	R	xSICIndustry					
Documents	RW	R	Publication	RW	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	RW-V	R	xTechNAICS					
GRC_Technology_Evaluation	RW		Reminder_Condition_Items	RW-V	R	xTechNTIS					
Inquiry	RW	R	Reminder_Log	R-V	R	xTech_Codes					
Inventory	R	R	Reminder_Task	RW-V	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	RW-V	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	RW	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	RW	R	xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure			_Utility					
KeyTOPS	RW	R	Subcontracts	RW	R	_WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	RW-V	R	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	RW	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

NASA Patent Attorney User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	RW	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	RW-V	R	License_Milestones_Chronology	RW	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	RW	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	RW	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royalties	RW	R	Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	RW	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	RW	R	Tech_Comm_Activities	R	R			
Awards		R-V	Licnese_Technologies	R-V	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	RW	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	RW	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	RW-V	R			
BLI			Other_Contracts	RW	R	Tech_Org_Codes	RW	R			
CG_Chronology	RW-V	R	Outside_Patent_Preparation	RW	R	Tech_Program_Areas	RW	R			
CG_Related_Contracts	RW	R	Partners	R-V	R	TOPS	RW	R			
Choice_Lists			Partnerships	R-V	R	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology	R	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	RW	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	RW-V	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	RW-V	R	PAT_Statistics	R-V	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	RW-V	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	RW-V	R	Process			xOrg_Codes					
Corp_Tech_Group	RW	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	RW	R	xSICIndustry					
Documents			Publication	RW	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	RW	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	RW		Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	RW	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	RW	R	xWebData					
KeyPeople	RW	R	Shadow			ATProcessInfo					
KeySuccess	RW	R	sparexxx			Forms					
KeyTechnology	RW	R	Structure	R	R	Utility					
KeyTOPS	RW	R	Subcontracts	RW	R	WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License	RW-V	R	Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology	RW	R	Success_Story_Chronology	RW	R	WEB_PageComponents					

NASA Technology Transfer Project Administration User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	RW-V	R-V	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards		R	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	R-V	R-V			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	RW	R	Tech_Org_Codes	R	R			
CG_Chronology	RW	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	RW	R	Partners	RW-V	R	TOPS	R-V	R-V			
Choice_Lists			Partnerships	RW-V	R	TOPS_Category	R	R			
Choice_Lists_Items			Partnership_Assitance	RW	R	TOPS_Related_Technologies	R	R			
COG			Partnership_Chronology	RW-V	R	TOPS_WWW_References	R	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	RW	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	RW	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	RW	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	RW-V	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	RW-V	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	RW-V	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics			xForeign_Filing					
Congress	R-V	R-V	PAT_Stats_Month			Xhtml					
Congressional_Districts	R-V	R-V	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	RW	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	RW	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	RW	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure	R	R	_Utility					
KeyTOPS	RW	R	Subcontracts	RW	R	_WEB_ComponentItems					
Keywords			Success_Story	RW-V	R-V	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	R-V	R	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

NASA Tech Transfer Project Managers User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW	R	License_Milestones	RW	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	RW	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	RW	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	RW	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royalties	RW	R	Tech_Additional_Documentation	RW	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	RW	R	Tech_Chronology	RW-V	R			
Attachment_Blob	R	R	License_Royalty_Recipients	RW	R	Tech_Comm_Activities	RW	R			
Awards		R	Licnese_Technologies	RW	R	Tech_Comm_Eval_Criteria	RW	R			
Awards_by_Innovator		R	Maintenance_Fee	R	R	Tech_CTG_Codes	RW	R			
Awards_Chronology		R	Multimedia	RW	R	Tech_Innovator	R-V	R			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	R-V	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	RW	R			
CG_Chronology	RW	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	RW-V	R-V	TOPS	RW-V	R			
Choice_Lists			Partnerships	RW-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	RW	R	TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology	RW	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R-V	R	Partnership_NTIS	R	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	RW	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	RW	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	RW	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	RW	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics			xForeign_Filing					
Congress	R	R	PAT_Stats_Month			Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	RW	R	Publication	RW	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	RW		Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	RW	R	Shadow			ATProcessInfo					
KeySuccess	RW	R	sparexxx			Forms					
KeyTechnology	RW	R	Structure	R	R	Utility					
KeyTOPS	RW	R	Subcontracts	R	R	WEB_ComponentItems					
Keywords			Success_Story	RW	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License	RW-V	R-V	Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology	RW	R	Success_Story_Chronology	RW	R	WEB_PageComponents					

New Business Development User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	R-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	R	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards			Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator			Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology			Multimedia	RW	R	Tech_Innovator	R	R			
Award_Process			NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	RW	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	R	R	TOPS	RW-V	R			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	RW	R			
COG	R	R	Partnership_Chronology	R	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	R-V	R-V			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics	R-V	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R-V	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services	R	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	R	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R-V	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	R	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	R	R	xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure	R	R	_Utility					
KeyTOPS	RW	R	Subcontracts	R	R	_WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	R-V	R	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

SBIR/STTR User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics			License_Reports	R	R	Technology	R-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards			Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator			Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology			Multimedia	RW	R	Tech_Innovator	R-V	R-V			
Award_Process			NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	RW	R	Tech_Org_Codes	R	R			
CG_Chronology	RW-V	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	RW	R	Partners	R	R	TOPS	RW-V	R			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology	R	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R-V	R	Partnership_NTIS	R	R	Waiver	R-V	R-V			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	R-V	R-V	PAT_Statistics			xForeign_Filing					
Congress	R	R	PAT_Stats_Month			Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	RW-V	R-V	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	RW	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	RW	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation			Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R-V	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R-V	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	RW	R	xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report	RW	R	xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure	R	R	_Utility					
KeyTOPS	RW	R	Subcontracts	R	R	_WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

Software Release Authority User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R-V	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	RW-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	RW	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards		R-V	Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator		R	Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology		R	Multimedia	R	R	Tech_Innovator	R-V	R-V			
Award_Process		R	NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	RW	R			
CG_Chronology	R	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	RW	R	TOPS	RW-V	R			
Choice_Lists			Partnerships	RW-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	RW	R	TOPS_Related_Technologies	RW	R			
COG			Partnership_Chronology	RW	R	TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	R	R	Partnership_NAICS	RW	R	User					
Commercialization_Metrics	R-V	R-V	Partnership_NTIS	RW	R	Waiver	R-V	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	RW	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	RW	R	Web_Statistics					
Company	RW-V	R	Partnership_Program_Number	RW	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	RW	R	xDisciplines					
Confirm_License	R	R-V	PAT_Statistics			xForeign_Filing					
Congress	R	R	PAT_Stats_Month			Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	R-V	R-V	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R-V	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R-V	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services			xPeopleType					
CTG_SubGroup	R	R	Program_Code			xSBIR_Import					
Daily_Message			Program_Office			xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	R	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation			Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R-V	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	RW	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			Forms					
KeyTechnology	RW	R	Structure	R	R	Utility					
KeyTOPS	RW	R	Subcontracts	R	R	WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology	RW	R	Success_Story_Chronology	RW	R	WEB_PageComponents					

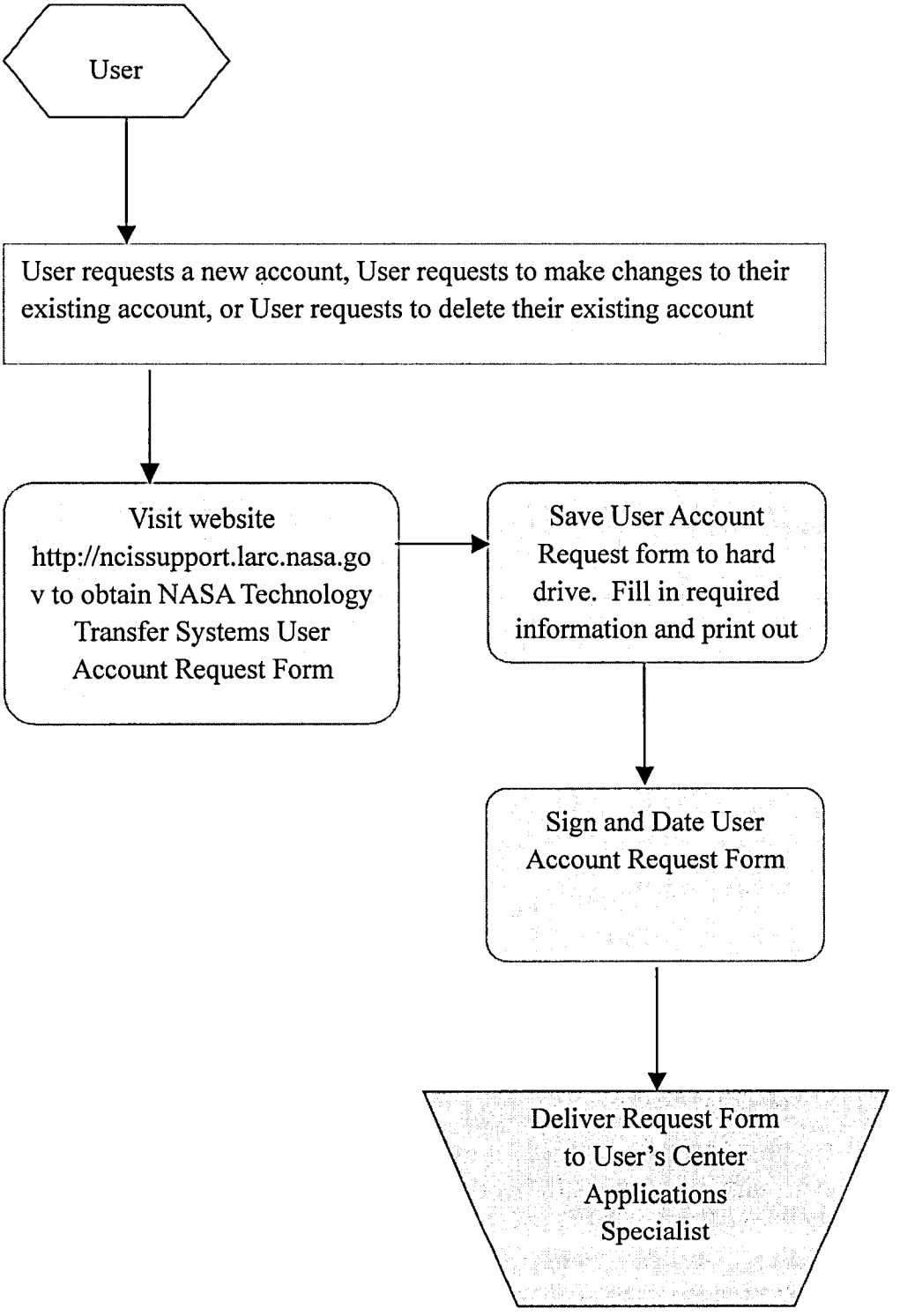
Success Story Team User Table Access

Success Story Team User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V	R	License_Milestones	R	R	Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment	R	R	License_Milestones_Chronology	R	R	Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics	R	R	License_Reports	R	R	Technology	R-V	R	WEB_Settings		
Associated_Forms			License_Reports_Content	R	R	Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties	R	R	Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments	R	R	License_Royalty_Distribution	R	R	Tech_Chronology	RW	R			
Attachment_Blob	R	R	License_Royalty_Recipients	R	R	Tech_Comm_Activities	R	R			
Awards			Licnese_Technologies	R	R	Tech_Comm_Eval_Criteria	R	R			
Awards_by_Innovator			Maintenance_Fee	R	R	Tech_CTG_Codes	R	R			
Awards_Chronology			Multimedia	R	R	Tech_Innovator	R	R			
Award_Process			NAICS	R	R	Tech_Maint_Fee	R	R			
BLI			Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	R	R	Outside_Patent_Preparation	R	R	Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	R	R	TOPS	R-V	R-V			
Choice_Lists			Partnerships	R-V	R-V	TOPS_Category	R	R			
Choice_Lists_Items			Partnership_Assitance	R	R	TOPS_Related_Technologies	R	R			
COG			Partnership_Chronology	R	R	TOPS_WWW_References	R	R			
Commercialization_Eval_Criteria	R	R	Partnership_NAICS	R	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	R	R	Waiver	R	R			
Commercialization_Metric_Sets	R	R	Partnership_NTRs	R	R	WebStatistics					
Commercial_Leads	RW-V	R	Partnership_Org_Codes	R	R	Web_Statistics					
Company	RW-V	R-V	Partnership_Program_Number	R	R	xAudit					
Company_Chrono	RW	R	Partnership_Program_Number_FY	R	R	xCompany_NAICS					
Company_CTG_Codes	R	R	Partners_FY	R	R	xDisciplines					
Confirm_License	R	R	PAT_Statistics	R	R	xForeign_Filing					
Congress	R	R	PAT_Stats_Month	R	R	Xhtml					
Congressional_Districts	R	R	People	RW-V	R	xInvNAICS					
Constants			People_Chrono	RW	R	xInvNTIS					
Contract_Grant	R-V	R-V	People_CTG_Codes	R	R	xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats	R	R	Process			xOrg_Codes					
Corp_Tech_Group	R	R	Products_Services	R	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions	R	R	xSICIndustry					
Documents	R	R	Publication	R	R	xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension	R	R	Quest_Responses_Feedback			xSS_NAICS					
Forms	R	R	Reminder_Condition	R	R	xTechNAICS					
GRC_Technology_Evaluation	R	R	Reminder_Condition_Items	R	R	xTechNTIS					
Inquiry	R	R	Reminder_Log	R	R	xTech_Codes					
Inventory	R	R	Reminder_Task	R	R	xToolkit					
KeyCompany	RW	R	Reminder_Task_Items	R	R	xWAN_Post					
KeyContract	RW	R	SBIR_STTR_Funding_Request	R	R	xWAN_Web					
KeyPartnership	R	R	SBIR_STTR_Technical_Report	R	R	xWebData					
KeyPeople	RW	R	Shadow			_ATProcessInfo					
KeySuccess	RW	R	sparexxx			_Forms					
KeyTechnology	RW	R	Structure	R	R	_Utility					
KeyTOPS	RW	R	Subcontracts	R	R	_WEB_ComponentItems					
Keywords			Success_Story	RW-V	R	_Web_Contacts					
Lead_Chronology	RW	R	Success_Story_Assist	RW	R	_WEB_CurrentUsers					
License	R-V	R-V	Success_Story_Assoc_Docs	RW	R	_WEB_Objects					
License_Chronology	R	R	Success_Story_Chronology	RW	R	_WEB_PageComponents					

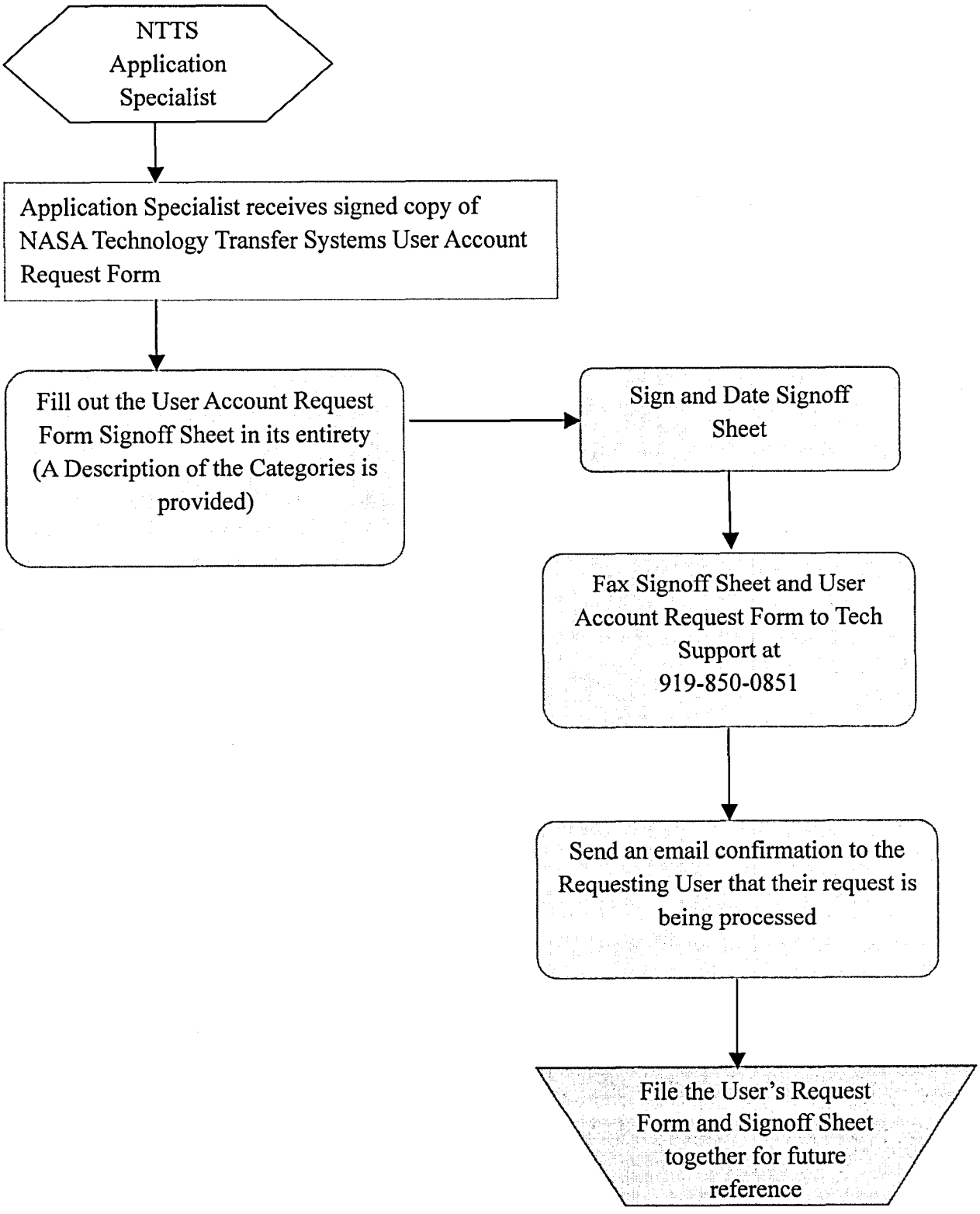
TT Support Contractors User Table Access	*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*		*Center*	*Agency*
Action_Item	RW-V		License_Milestones			Success_Story_Program_Areas	RW	R	WEB_Pages		
Assignment			License_Milestones_Chronology			Success_Story_Technologies	RW	R	WEB_Privileges		
Assistance_Metrics			License_Reports			Technology	R-V	R-V	WEB_Settings		
Associated_Forms			License_Reports_Content			Technology_Related_Cases	R	R	WEB_Themes		
Associated_Forms_People			License_Royalties			Tech_Additional_Documentation	R	R	WEB_Theme_Styles		
Attachments			License_Royalty_Distribution			Tech_Chronology	RW				
Attachment_Blob			License_Royalty_Recipients			Tech_Comm_Activities	RW	R			
Awards			Licnese_Technologies			Tech_Comm_Eval_Criteria	RW	R			
Awards_by_Innovator			Maintenance_Fee			Tech_CTG_Codes	RW	R			
Awards_Chronology			Multimedia			Tech_Innovator					
Award_Process			NAICS			Tech_Maint_Fee					
BLI			Other_Contracts	R	R	Tech_Org_Codes	R	R			
CG_Chronology	R		Outside_Patent_Preparation			Tech_Program_Areas	R	R			
CG_Related_Contracts	R	R	Partners	RW	R	TOPS	RW-V	R-V			
Choice_Lists			Partnerships	RW-V	R-V	TOPS_Category	RW	R			
Choice_Lists_Items			Partnership_Assitance	RW	R	TOPS_Related_Technologies	RW	R			
COG	R	R	Partnership_Chronology	RW		TOPS_WWW_References	RW	R			
Commercialization_Eval_Criteria	RW	R	Partnership_NAICS	RW	R	User					
Commercialization_Metrics	R	R	Partnership_NTIS	RW	R	Waiver					
Commercialization_Metric_Sets	R	R	Partnership_NTRs	RW	R	WebStatistics					
Commercial_Leads	RW-V	R-V	Partnership_Org_Codes	RW	R	Web_Statistics					
Company	RW-V	R-V	Partnership_Program_Number	RW	R	xAudit					
Company_Chrono	RW		Partnership_Program_Number_FY	RW	R	xCompany_NAICS					
Company_CTG_Codes			Partners_FY	RW	R	xDisciplines					
Confirm_License			PAT_Statistics		R	xForeign_Filing					
Congress		R-V	PAT_Stats_Month		R	Xhtml					
Congressional_Districts		R-V	People	RW-V	R-V	xInvNAICS					
Constants			People_Chrono	RW		xInvNTIS					
Contract_Grant	R-V	R-V	People_CTG_Codes			xNTIS_Category					
Contract_Reports	R	R	PMC_Program	R	R	xNTIS_Subs					
Contract_Stats			Process			xOrg_Codes					
Corp_Tech_Group	RW	R	Products_Services	R	R	xPeopleType					
CTG_SubGroup	R	R	Program_Code	R	R	xSBIR_Import					
Daily_Message			Program_Office	R	R	xSEQ					
Deletions			PTO_Actions			xSICIndustry					
Documents			Publication			xSICMajorGroups					
Enclosures			Questionnaire			xSICSubIndustry					
External_Application_Usage			Questionnaire_Responses			xSSNTIS					
File_Type_Extension			Quest_Responses_Feedback			xSS_NAICS					
Forms			Reminder_Condition			xTechNAICS					
GRC_Technology_Evaluation			Reminder_Condition_Items			xTechNTIS					
Inquiry			Reminder_Log			xTech_Codes					
Inventory	R	R	Reminder_Task			xToolkit					
KeyCompany	R	R	Reminder_Task_Items			xWAN_Post					
KeyContract	R	R	SBIR_STTR_Funding_Request			xWAN_Web					
KeyPartnership	R	R	SBIR_STTR_Technical_Report			xWebData					
KeyPeople	R	R	Shadow			ATProcessInfo					
KeySuccess	R	R	sparexxx			Forms					
KeyTechnology	R	R	Structure	R	R	Utility					
KeyTOPS	R	R	Subcontracts			WEB_ComponentItems					
Keywords	R	R	Success_Story	RW-V	R-V	Web_Contacts					
Lead_Chronology	RW		Success_Story_Assist	RW	R	WEB_CurrentUsers					
License			Success_Story_Assoc_Docs	RW	R	WEB_Objects					
License_Chronology			Success_Story_Chronology	RW	R	WEB_PageComponents					

EXHIBIT H – NTTS User Account Process

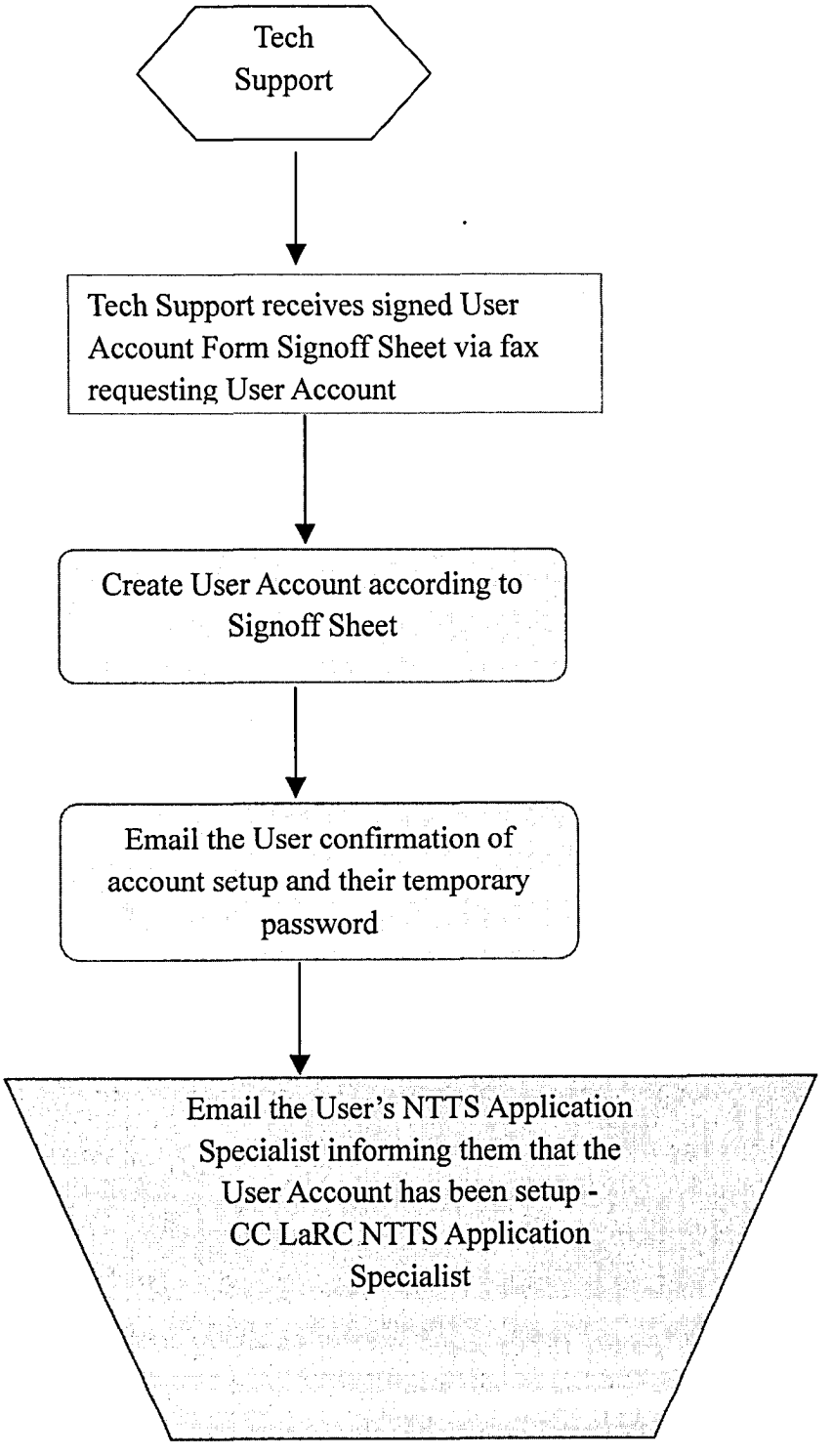
Flowchart for User, NTTS Applications Specialist and Tech Support Process



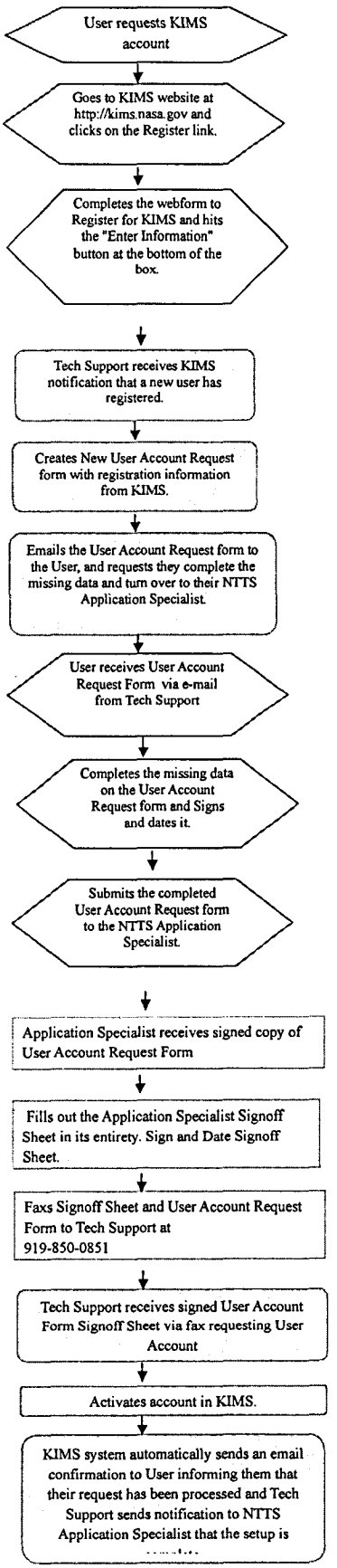
Flowchart for User, NTTS Applications Specialist and Tech Support Process



Flowchart for User, NTTS Applications Specialist and Tech Support Process



Flowchart for KIMS Account setup (User, NTTS Applications Specialist and Tech Support Process)



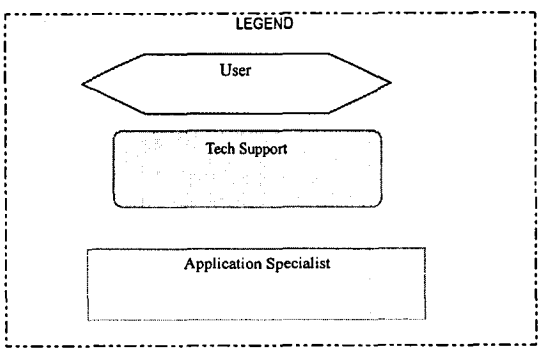


Exhibit I - DRL/DRD

Appendix

NTTS Data Requirements List (DRL)

Instructions

The following table describes the required DRL name, submittal requirements and NASA LaRC action. Whenever possible, documentation shall also be delivered in electronic/email form. At least three copies shall be provided for: NASA LaRC Contracting Officer (Mail Stop 126), NASA LaRC Contracting Officer's Technical Representative (MS 218), and the NASA NTTS Project Manager (MS 218). Any deviations from this distribution are noted in the DRL descriptions. In the case where NASA LaRC approval is required, the Contractor shall not implement the document or proceed with the work until approval is granted by the NASA Contracting Officer.

DRL/DRD	Name	Submittal	NASA LaRC Action
1	Product Management Plan	30 days following contract award	Approval
2	Technical Status Reports	Weekly: Every Monday	Information
3	Project Schedule and Reports	Monthly: 1st Tuesday of every month	Information
4	Financial Management Reports	Initial: 30 days after contract award Monthly: 10 days after close of accounting month Quarterly: 10 days after close of accounting month	Information
5	Contractor IT Security and Recovery Plan	30 days after contract award	Approval
6	Annual IT Security Training Report	Yearly during contract period	Approval
7	Patent Rights Report	Prior to March 31 yearly, and at end of contract	Information
8	New Technology Reports	Yearly. Prior to 3 months after end of contract	Information
9	Federal Contractor Veterans Employment Report	As Required by VETS-100	Information
10	Quality Plan	30 days after contract	Approval

		award	
11	Documentation	As required to maintain currency and no later than 10 days after software release.	Approval
12	Requirements Definition	5 days prior to review	Approval
13	Detail Design Definition	5 days prior to review	Approval
14	Release Test Plans	5 days prior to Contractor Test Period	Approval
15	Contractor Test Results	Within Contractor Test Period	Approval
16	Release Notes	5 days prior to NASA Test Period	Approval
17	Sustaining Architecture Work Plan	2 months from Contract award	Approval
18	Final Report	At end of contract	Information

Data Requirements Description

1. Project Management Plan

Summary: Provides a description of the management organization and methods by which the

Contractor will assure compliance with the contractual tasks.

Requirements: The plan shall include the following items:

- Master Schedule (See DRD 3)
- Baseline Financial Management Plan (See DRD 4)
- Project Organization - provides organizational method on how the contractor shall support the contractual tasks and how the Contractor's organization will interface with the NTTS Project Organizational structure (See Section 5.2 Organizational Structure of NTTS Project Plan).
- WBS Matrix - work breakdown structure to the resource level.

WBS Matrix Basic Template:

1.0 Operations
1.1 NTTS System (eNTRe, TechTracS, KIMS, TechFinder)
1.1.1 Activity (Defined Procedures)

2.0 Development
2.1 NTTS System
2.1.1 Task Order

2.1.1.1 Activity (Requirements, Details Design, Prototype, Construction, Unit Testing, Integrated Contractor Testing, Review of Contractor Results)

3.0 Release

3.1 NTTS System

3.1.1 Task Order

3.1.1.1 Activity (Documentation, Release Notes, NASA Testing, Final fix period, deployment, critical fixes)

4.0 Training

4.1 NTTS System

4.1.1 Task Order

4.1.1.1 Activity (web training, classroom training, documentation)

Approval: Requires the approval the COTR.

2. Technical Status Reports

Summary: Provides data on Contractor activity and progress toward contract objectives.

Requirements: The status reports shall contain the status of all contract technical activities including:

- Technical status organized by WBS (See DRD 1)
- Technical problems
- Project Action Item status and closure summary
- Failure reports and corrective actions planned/taken

Reports shall be posted to the Document Control System (See DRD 13).

3. Project Schedule and Reports

Summary: Provides data on Contractor activity and progress toward contract objectives.

Requirements: The Contractor shall provide a web-base reporting tool (DRD 13) for reporting project status to NASA. The reporting tool shall provide NASA access to the master schedule, detailed schedules, and related project documents.

The master and detailed schedules shall contain the following information and be reported in Microsoft Project format.

Master Schedules

The Contractor shall establish and maintain an integrated master schedule of the total contractual effort (summary level, Gantt chart format), depicting key activities and milestones for NTTS by WBS (See DRD 1).

Detailed Schedules

Detailed schedules (Gantt chart format) shall be reported at WBS (See DRD 1) and include the following:

- Activity Description
- WBS Reference
- Baseline Start and Completion Date
- Actual Start Date and Completion Date
- Critical Path

Update Schedules

The Master Schedule and detailed Gantt charts shall be updated each month. The detailed schedules shall contain all activities scheduled to start, to be completed, or that are in progress during the reporting period. All future activities, dependencies, interfaces, constraints, and any logic that are modified or rescheduled shall also be reported.

Related project documents include task orders, requirement definitions, detail design definitions, and test plans.

4. Financial Management Reports

Summary: Provides cost performance for the contract.
References: NPR 9501.2D

Baseline Financial Management Report

The Contractor shall prepare a time-phased baseline financial management report, detailing by month how you plan to incur costs for the first 24-month interval of the total 5-year contract period, utilizing the NASA Form 533Q format. The report shall be prepared and submitted in accordance with instructions set forth on the reverse side of the 533Q form and NASA Policy and Guidelines (NPR) 9501.2D, "NASA Contractor Financial Management Reporting." The initial 533Q shall be submitted within 30 working days after the effective date of contract.

Financial baseline reports for each of the remaining 12-month intervals shall be submitted within 10 days of the anniversary of the effective date of this contract. The total estimated cost and direct labor hours reflected in the baseline report must equal the contract values for the total contract period. The report shall be updated, as required, during the contract performance by submission of revised pages for approval of the Contracting Officer. The financial baseline report shall be revised each time a contract modification is executed which

increases or decreases the contract-estimated cost for a reason other than an overrun.

Monthly Financial Management Report

The contractor shall comply with the Section G clause of this contract entitled, "NASA Contractor Financial Management Reporting" by monthly submission of NASA Form 533M. The form shall be prepared and submitted in accordance with the instructions set forth on the reverse side of the form and NASA Procedures and Guidelines (NPR) 9501.2D, "NASA Contractor Financial Management Reporting" as further defined below:

- Due not later than the 10th operating day following the close of the Contractor's accounting period being reported..
- Columns 8.a and b shall be completed using estimates (forecasts) for the succeeding two months.
- Each NF533M shall include a narrative explanation for variances exceeding +-5 percent between estimated dollars shown in the prior month and actual dollars shown in the current month at the contract level. (For example, the estimated dollars shown for June in column 8a. in the May 533M and the actual June dollars shown in column 7a. in the June 533M.)

Quarterly Financial Management

The contractor shall comply with the Section G clause of this contract entitled, "NASA Contractor Financial Management Reporting" by monthly submission of NASA Form 533Q. The form shall be prepared and submitted in accordance with the instructions set forth on the reverse side of the form and NASA Procedures and Guidelines (NPG) 9501.2D, "NASA Contractor Financial Management Reporting" as further defined below:

- NASA needs to receive the NF 533 Q prior to the quarter being forecast in order for project management to obtain maximum benefit from cost forecasts. Column 7 of the report, therefore, shall include cumulative actual cost through the second month of the prior quarter plus an estimate for the last month of the quarter.
- The Contractor shall submit one form in accordance with the 533Q guidelines and a second breaking down costs incurred per system for all 4 systems that comprise the NTTS - KIMS, eNTRe, TechTracs and TechFinder. All columns and calculations shall be done in accordance with the 533Q guidelines, only that they are done for each system.

5. IT Security and Recovery Plan

Summary: The NTTS test systems and Contractor systems used to support contractual tasks shall be located at the contractor's site. An IT Security and Recovery Plan addressing all areas addressed by the NTTS IT Security and Recovery plan (Attachment B) and as required by contract clause H.2, Security Requirements for Unclassified Technology Resources, shall be submitted.

Requirement: The Contractor shall submit the IT Security and Recovery Plan no later than 30 days after award for approval noted below.

Approval: Requires the approval of the Center Chief Information Officer (CIO), the Center Information Technology (IT) Security Manager and the COTR.

6. Annual IT Security Training Report

Approval: Requires the approval of the Center Information Technology (IT) Security Manager.

Requirement: The Contractor shall ensure that its employees receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPR 2810.1 (Information Technology Security), Section 4.3 requirements. The contractor may use web-based training available from NASA to meet this requirement. The Contractor shall submit a report documenting the status of this training by June 1 of each year and monthly follow-on reports until 100% annual training is achieved.

7. Patent Rights Report

Summary: Provides technical information concerning inventions, discoveries, improvements and innovations made by the Contractor in the performance of work under this contract. Also provides data to review for possible patentable items.

Interim patent rights report - After the first anniversary date of the contract, the Contractor shall submit an annual list of all subject inventions to be disclosed as set forth in FAR 52.227-11 (as modified by 1852.227-11). This report is due by March 31 of each year.

Final patent rights report - The Contractor shall submit a listing of all subject inventions or certify that there were none as set forth in FAR 52.227-11 (as modified by 1852.227-11). This report is due prior to contract closeout.

Invention disclosure reporting - The Contractor shall disclose each reportable item under the contract as set forth in FAR 52.227-11 (as modified by 1852.227-11). The electronic or paper version of NASA Form 1679, Disclosure of Invention and New Technology (Including Software) may be used for this reporting. Both the electronic and paper versions of this form may be accessed at http://invention.nasa.gov. Disclosures are required within two months after the inventor discloses it in writing to Contractor personnel who are responsible for patent matters.

Distribution:
Contract Specialist, Mail Stop 126
Contracting Officer Technical Representative, MS 218
Patent Counsel, MS 212

8. New Technology Report

Interim New Technology report - After the first anniversary date of the contract, the Contractor shall submit an annual list of reportable items, certify that all reportable items have been disclosed(or that there are no such inventions), and certify that the procedures required by paragraph (e)(1) of the New Technology clause have been followed as set forth in NFS 1852.227-70. Electronic reporting may be accessed at http://invention.nasa.gov.

Final New Technology report - The Contractor shall submit a list of reportable items or certify that that there were no such reportable items, and list all subcontracts at any tier containing a patent rights clause or certify that there were no such subcontracts as set forth in NFS 1852.227-70.

This report is due within 3 months after completion of the contracted work.

Invention disclosure reporting - The Contractor shall disclose each reportable item under the contract as set forth in NFS 1852.227-70. The electronic or paper version of NASA Form 1679, Disclosure of Invention and New Technology (Including Software) may be used for this reporting.

Disclosures are required within two months after the inventor discloses it in writing to Contractor personnel who are responsible for the administration of the New Technology clause.

Distribution:
Contract Specialist, Mail Stop 126
Contracting Officer Technical Representative, MS 218
New Technology Representative, MS 212

9. Federal Contractor Veterans Employment Report

Requirements: In compliance with Clause 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era, the Contractor shall submit the Federal Contractor Veterans Employment Reports (VETS-100) as required by this clause.

10. Quality Plan

Requirement: Within 30 calendar days after the effective date of the contract, the Contractor shall submit a quality plan that addresses how the contract quality requirements will be met. The plan and subsequent revisions will be reviewed and approved by the Contracting Officer or the designated representative.

Quality System Documents (ISO 9001) -- The Contractor shall submit the following ISO-compliant documents in accordance with H.12 no later than nine months from the effective date of contract:
1. Quality System Manual
2. Quality System Procedures - These procedures shall address: (1) contract and subcontract management, (2) customer requirement review and execution, (3) task management, including task order generation and processing, (4) document control, (5) handling of customer supplied product, (6) corrective, preventive, and continuing improvement action systems, (7) training of employees, and (8) customer satisfaction/performance.

Distribution and copies:
Contract Specialist, Mail Stop 126 - 1
Contracting Officer Technical Representative, MS 218 - 1
Langley Management System Project Office, MS 438 - 1

11. Documentation

Summary: The Contractor shall maintain all documentation as noted in the SOW.

Requirements: All documentation shall be current with the current release of NTTS. Updates to the documentation shall be delivered within 10 working days from the end of release deployment. Each document shall conclude with a log of documentation changes noting the NTTS version and the sections that have been created, changed, or deleted. Documentation shall be maintained in MS, unless otherwise noted, and made available using an electronic document control system.

11.1 Document Control System
The Document Control System (DCS) shall be record based with document attachment capabilities. The DCS records shall have the following information associated with each

document. A capability for searching multiple levels of the DCS information shall be available. The DCS shall have both public and password protected access. The DCS shall have document categories as noted below.

DCS Information Requirements

- Creation Date
- Last Revised Date
- Title
- Brief Description
- Document category
- Public / Password protected

Document Categories

- System
- Project
- User
- Hot Topics
- Task Orders

Documents shall exist in one or more categories.

11.2 Database Documentation

Documentation pertaining to the DBMS shall be categorized as System and will contain the following.

- Current configuration of the database environment including site-specific parameters and tools installed and their availability.
- Historical tracking of changes made to the DBMS environment over time.
- Operational procedures in the administration of the database environment
- Database archive/restore strategy to be included in system disaster recovery plan

11.3 Processing Documentation

Documentation pertaining to the periodic (daily, weekly, monthly, annual, as designated) application processing shall be categorized as System and will contain the following.

- Processing schedule
- Processing inputs, outputs, and transactions
- Person responsible for processing
- Processing Certification

11.4 User Documentation

Documentation describing user processing shall be categorized as User and will maintain the information in the following documents.

- NTTS User Manual

- NTTS Application Specialist Manual
- NTTS Module Documents

11.5 Project Documentation

Project Plan, Schedules and reports and technical reports as defined in DRD's 1, 2, and 3 shall be categorized under Project.

Approval: Requires the approval of the COTR.

12. Requirements Definition

Summary: The Contractor shall convey to the COTR an adequate understanding of Task Orders.

Requirement: Upon receipt of an approved task order, the Contractor shall develop the requirements definition document (RDD). The RDD defines the Contractor's understanding of the requirements, and provides an estimate of the cost of the task. The RDD is used by the COTR and the Contractor to resolve outstanding questions on the task order and is used by the COTR to determine if work on the task should proceed into the design stage. The RDD shall contain, at a minimum, the following items.

- Document Modification Status
- Task Order
- Objectives
- Hardware/Software Recommendations
- Work Request Analysis
- Questions & Answers
- Requirements Definition
- Conceptual Description
- Estimated Cost
- Glossary
- Appendix

The RDD shall be posted in the Electronic Task Order system (section 6.1 of SOW) and under Task Orders in the DCS.

Approval: Requires the approval of the COTR.

13. Detail Design Document

Summary: The Contractor shall provided recommended designs for Task Orders to the COTR.

Requirements: Upon receipt of an approved RDD, the Contractor shall develop the detail design document (DDD). The DDD documents how each requirement in the RDD will be developed and implement into the NTTS environment. The DDD is used by the COTR and the Contractor to resolve outstanding questions

on the task order and is used by the COTR to determine if work on the task should proceed into the construction and testing stages. The DDD shall contain, at a minimum, the following items.

- Document Modification Status
- Introduction
- Design Overview
- Documentation Specifications
- Requirements Matrix
- Detailed Development Plan
- Structure
- Record Forms/Custom Dialogs
- List Forms/Find Dialogs
- Custom Reports
- Major Methods
- Conceptual Description
- Estimated Cost
- Glossary
- Appendix

The DDD shall be posted in the Electronic Task Order system (Section 6.1 of SOW) and under Task Orders in the DCS.

Approval: Requires the approval of the COTR.

14. Release Test Plans

Summary:

- To define the activities necessary to integrate the software units and software components into the software item.
- To plan the activities for testing of software items and software systems.
- To describe the software test environment to be used for the testing, identify the tests to be performed, and provide schedules for test activities.

Requirements: The Contractor shall include provide for each release of NTTS a release test plan describing all related system configuration variables, input variables, output variables, processes, and expected outcomes (null sets, valid sets, and invalid sets).
The Release Test Plan shall be posted in the Electronic Task Order system (Section 6.1 of SOW) and under Task Orders in the DCS.

Approval: Requires the approval of the COTR.

15. Contractor Test Results

Summary: To provide evidence of the Contractor's successful completion of the Release Test Plan.
Requirement: The Contractor shall demonstrate release test results with a system demonstration or shall show reports showing inputs and results as required by the release test plan.
Approval: Requires the approval of the COTR.

16. Release Notes

Summary: To provide an overview of the new features and related system configurations for each release.
Requirements: The Contractor shall provide an overview for each release of all features and related system configurations associated with each release. The overview shall convey to NTTS users what systems, screens, and functionalities will change as a result of an upcoming release. The overview will also serve as a reminder of any user actions that will be required to support a successful release.
The Release Notes shall be posted under User in the DCS.
Approval: Requires the approval of the COTR.

17. Sustaining Architecture Work Plan

Summary: As defined in Thrust 2 of the NTTS Project Plan, activities to move the NTTS into it's next generation configuration (i.e., out of 4th Dimension) shall be performed. Upon award of this contract an initial requirements gathering element will be complete resulting from a requirements document for the conversion of the Technology Tracking System (TTS) into a more sustainable platform.

Evaluate Existing Baseline and conversion Requirements Document
Confirm Stakeholders and expectations
Identify Risks and Establish Risk Management Plan
Define constraints
Define System Concepts
Define Concepts of Operations
Define Evaluation Criteria
Define Candidate Architectures
Define Support Role Requirements
Conduct Trade Studies
Define Recommended Architecture
Define Architecture Implementation Plan
Revise Change Management Systems for Improved Configuration Management

Approval: Requires the approval of the COTR.

18. Final Report

Final Report—The Contractor shall submit a final report in accordance with NFS Clause 1852.235-73, Final Scientific and Technical Reports, that summarizes the results of the entire contract, including recommendations and conclusions based on the experience and results obtained. The final report should include tables, graphs, diagrams, curves, sketches, photographs and drawings in sufficient detail to explain comprehensively the results achieved under the contract.

Distribution and copies:

Contract Specialist, Mail Stop 126 - 1
Contracting Officer Technical Representative, MS 218 - 2
New Technology Representative, MS 212 - 1
Patent Counsel, MS 212 - 1