Exhibit 300 (BY2009)

PART ONE	
OVERVIEW	
1. Date of Submission:	2007-09-07
2. Agency:	026
3. Bureau:	00
4. Name of this Capital Asset:	KSC Shuttle Ground Operations
5. Unique Project Identifier:	026-00-01-03-01-1427-00

6. What kind of investment will this be in FY2009?

Operations and Maintenance

7. What was the first budget year this investment was submitted to OMB?

FY2001 or earlier

8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap.

Ground Operations (GO) investment provides labor and hardware to maintain information technology in facilities that directly support launch preparation of the Space Shuttle. GO supports the Shuttle Program by providing vital instrumentation data from all ground support equipment during servicing, testing, and launch preparations. This investment covers platforms, LAN operations and associated maintenance of ADP hardware and software. It also covers operations and maintenance of Instrumentation systems such as the Ground Measurement System, Permanent Measuring System, Catenary Wire Lightning Instrumentation System, Lightning Induced Voltage Instrumentation System, the Shuttle Modal Inspection System, and others. Specifically: Desktop HW/SW - Primarily allocation of PC Pool Data Center - ADP procurement and maintenance contracts, department specific requirements and O&M of Instrumentation systems (Ground Measuring System, Permanent Measuring System, Catenary Wire Lightning Instrumentation System, Shuttle Modal Inspection System, Metrological systems and Wave Analysis Data Processing Systems). PMS,GMS were replaced in 2005 by two new systems CDAS (Critical Data Acquisition System and GMS II). Application Services: includes software development for Maximo and Documentum and Sustaining Engineering for Ground Operations Legacy System. In addition, NASA has developed a Competency Management System that, combined with its Web-based analytical forecasting tools, allows the Agency to track and project core workforce competencies, address workforce imbalances, and guide future recruitment and deployment. The Space Shuttle functions supported by this IT investment have existed since the mid 1970s. The business management processes and the supporting financial management processes have changed to accommodate evolving program needs and reporting requirements. Rita Willcoxon's Shuttle IT investments comprise approximately 16% of her financial oversight responsibility at KSC. While NASA can report life-cycle costs for this program and its major projects, it is extremely difficult to trace back the entire life-cycle costs history associated with this IT investment. The life cycle costs reported cover FY 2006 through the planned termination of the program for which the IT investment supports. The loss of this investment would require revert to manual systems which would in turn increase headcount and impact processing schedule.

9. Did the Agency's Executive/Investment Committee approve this request?

yes

9.a. If "yes," what was the date of this approval?

2007-06-15

10. Did the Project Manager review this Exhibit?

yes

11. Project Manager Name:

Edward Mango

Project Manager Phone:

321.867.4343

Project Manager Email:

edward.mango-1@ksc.nasa.gov

11.a. What is the current FAC-P/PM certification level of the project/program manager?
Senior/Expert-level
12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project.
yes
12.a. Will this investment include electronic assets (including computers)?
yes
12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)
no
13. Does this investment directly support one of the PMA initiatives?
yes
If yes, select the initiatives that apply:
Budget Performance Integration Competitive Sourcing Expanded E-Government Financial Performance Human Capital
13.a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)
Ground Operations systems have been developed and maintained over many years. Modifications and upgrades have been performed based upon new technology and evolving knowledge of the requirements of launching a human-rated vehicle into space. Many modifications are unique to Space Vehicle Processing and not readily available from general industry. When modifications are required the Agency adheres to Federal regulations of competitive sourcing, E-Government, and budget and financial performance.
14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?
yes
14.a. If yes, does this investment address a weakness found during the PART review?
yes
14.b. If yes, what is the name of the PARTed program?
Space Shuttle
14.c. If yes, what rating did the PART receive?
Adequate
15. Is this investment for information technology?
yes
16. What is the level of the IT Project (per CIO Council's PM Guidance)?
Level 3
17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance)
(1) Project manager has been validated as qualified for this investment
18. Is this investment identified as high risk on the Q4 - FY 2007 agency high risk report (per OMB memorandum M-05-23)?
no
19. Is this a financial management system?
no
19.a.2. If no, what does it address?
Space Shuttle Ground Operations is responsible for all processing associated with the Space Shuttle, from landing recovery to launch. GO consists of systems not covered in the LCS and LSE categories. These systems are under configuration control of the Ground Board.
20. What is the percentage breakout for the total FY2008 funding request for the following? (This should total 100%)

Hardware	18
Software	19
Services	63

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?

n/a

22. Contact information of individual responsible for privacy related questions.

Name

Mark Mason

Phone Number

321-867-3014

Title

KSC Information Officer

Email

mark.mason@nasa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?

yes

24. Does this investment directly support one of the GAO High Risk Areas?

no

SUMMARY OF SPEND

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated Government FTE Cost, and should be excluded from the amounts shown for Planning, Full Acquisition, and Operation/Maintenance. The total estimated annual cost of the investment is the sum of costs for Planning, Full Acquisition, and Operation/Maintenance. For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

All amounts represent Budget Authority

	PY 2007	CY 2008	BY 2009
Planning Budgetary Resources	0.000	0.000	0.000
Acquisition Budgetary Resources	0.000	0.000	0.000
Maintenance Budgetary Resources	57.482	59.477	53.304
Government FTE Cost	0.111	0.115	0.119
# of FTEs	0	0	0

Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies).

Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's?

no

3. If the summary of spending has changed from the FY2008 President's budget request, briefly explain those changes.

No changes

PERFORMANCE

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding Measurement Area and Measurement Grouping identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond FY 2009.

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
1	2007	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Customer Satisfaction	End User Satisfaction through the measurement of number of CRs implemented to user's satisfaction.	100%	100%	100%
2	2007	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Delivery Time	Annual percentage On-Time Delivery of LPS IT products supports Program's overall reliability and ensures affordability of the systems.	On-time Delivery of LPS IT Products - Standards of Excellence (SOE) = 95% Expectation = 80% Maximum Error Rate (MER) = >80%	Maintain SOE of 95% on-time delivery each year from 2005 to 2010	100%
3	2007	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Technology	Availability	Monthly percentage of unplanned/unscheduled outage supports NASA goal of high system reliability and helps ensures space access.	Availability of systems: Standards of Excellence (SOE) = 99% Maximum Error Rate (MER) = >97%	Maintain 99% or better availability each year from 2005 to 2010	100%

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
4	2007	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Processes and Activities	Complaints	Monthly average of 4 or less DRs across applications supports Program's overall reliability and ensures affordability of the systems.	Monthly average of 4 or less DRs across released LPS applications Standards of Excellence (SOE) = 4 or less Discrepancy Reports (DRs) Expectation = 5 to 7 DRs Maximum Error Rate (MER) = 8 DRs	Maintain SOE of 4 or less discrepancies (DRs) against LPS released applications each year from 2005 to 2010	TBD
5	2007	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Mission and Business Results	Space Operations	Achieve 100% on-orbit mission success for all Shuttle missions. Mission success criteria are those provided to the prime contractor for contract performance fee determination.	100%	100%	100%
6	2008	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Customer Satisfaction	End User Satisfaction through the measurement of number of CRs implemented to user's satisfaction.	100%	100%	TBD
7	2008	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Delivery Time	Annual percentage On-Time Delivery of LPS IT products supports Program's overall reliability and ensures affordability of the systems.	On-time Delivery of LPS IT Products - Standards of Excellence (SOE) = 95% Expectation = 80% Maximum Error Rate (MER) = >80%	Maintain SOE of 95% on-time delivery each year from 2005 to 2010	TBD

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
8	2008	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Technology	Availability	Monthly percentage of unplanned /unscheduled outage supports NASA goal of high system reliability and helps ensure space access.	Availability of systems: Standards of Excellence (SOE) = 99% Maximum Error Rate (MER) = >97%	Maintain 99% or better availability each year from 2005 to 2010	TBD
9	2008	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Processes and Activities	Complaints	Monthly average of 4 or less DRs across LPS applications supports Program's overall reliability and ensures system affordability.	Monthly average of 4 or less DRs across released LPS applications Standards of Excellence (SOE) = 4 or less Discrepancy Reports (DRs) Expectation = 5 to 7 DRs Maximum Error Rate (MER) = 8 DRs	Maintain SOE of 4 or less discrepancies (DRs) against LPS released applications each year from 2005 to 2010	TBD
10	2008	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Mission and Business Results	Space Operations	Achieve 100% on-orbit mission success for all Shuttle missions. Mission success criteria are those provided to the prime contractor for contract performance fee determination.	100%	100%	TBD
11	2009	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Customer Satisfaction	End User Satisfaction through the measurement of number of CRs implemented to user's satisfaction.	100%	100%	TBD

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
12	2009	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Delivery Time	Annual percentage On-Time Delivery of LPS IT products supports Program's overall reliability and ensures affordability of the systems.	On-time Delivery of LPS IT Products - Standards of Excellence (SOE) = 95% Expectation = 80% Maximum Error Rate (MER) = >80%	Maintain SOE of 95% on-time delivery each year from 2005 to 2010	TBD
13	2009	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Technology	Availability	Monthly percentage of unplanned /unscheduled outage supports NASA goal of high system reliability and helps ensure space access.	Availability of systems: Standards of Excellence (SOE) = 99% Maximum Error Rate (MER) = >97%	Maintain 99% or better availability each year from 2005 to 2010	TBD
14	2009	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Processes and Activities	Complaints	Monthly average of 4 or less DRs across applications supports Program's overall reliability and ensures affordability of the systems.	Monthly average of 4 or less DRs across released LPS applications Standards of Excellence (SOE) = 4 or less Discrepancy Reports (DRs) Expectation = 5 to 7 DRs Maximum Error Rate (MER) = 8 DRs	Maintain SOE of 4 or less discrepancies (DRs) against LPS released applications each year from 2005 to 2010	TBD
15	2009	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Mission and Business Results	Space Operations	Achieve 100% on-orbit mission success for all Shuttle missions. Mission success criteria are those provided to the prime contractor for contract performance fee determination.	100%	100%	TBD

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
16	2010	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Customer Satisfaction	End User Satisfaction through the measurement of number of CRs implemented to user's satisfaction.	100%	100%	TBD
17	2010	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Customer Results	Delivery Time	Annual percentage On-Time Delivery of LPS IT products supports Program's overall reliability and ensures affordability of the systems.	On-time Delivery of LPS IT Products - Standards of Excellence (SOE) = 95% Expectation = 80% Maximum Error Rate (MER) = >80%	Maintain SOE of 95% on-time delivery each year from 2005 to 2010	TBD
18	2010	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Technology	Availability	Monthly percentage of unplanned /unscheduled outage supports NASA goal of high system reliability and helps ensure space access.	Availability of systems: Standards of Excellence (SOE) = 99% Maximum Error Rate (MER) = >97%	Maintain 99% or better availability each year from 2005 to 2010	TBD
19	2010	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Processes and Activities	Complaints	Monthly average of 4 or less DRs across applications supports Program's overall reliability and ensures affordability of the systems.	Monthly average of 4 or less DRs across released LPS applications Standards of Excellence (SOE) = 4 or less Discrepancy Reports (DRs) Expectation = 5 to 7 DRs Maximum Error Rate (MER) = 8 DRs	Maintain SOE of 4 or less discrepancies (DRs) against LPS released applications each year from 2005 to 2010	TBD

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
20	2010	Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010.	Mission and Business Results	Space Operations	Achieve 100% on-orbit mission success for all Shuttle missions. Mission success criteria are those provided to the prime contractor for contract performance fee determination.	100%	100%	TBD

EA

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

yes

2. Is this investment included in the agency's EA Transition Strategy?

yes

2.a. If yes, provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

KSC Ground Operations

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

no

4. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.whitehouse.gov/omb/egov/.

Component: Use existing SRM Components or identify as NEW. A NEW component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: Internal reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. External reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
1	Space and Ground Network IT Support	Ground Ops supports Process Tracking by maintaining the infrastructure including servers, storage and network services	Tracking and Workflow	Process Tracking			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
2	Space and Ground Network IT Support	Ground Ops supports Case / Issue Management by maintaining the infrastructure including servers, storage and network services	Tracking and Workflow	Case Management			No Reuse	2
3	Space and Ground Network IT Support	Ground Ops supports Process Track Conflict Resolution by maintaining the infrastructure including servers, storage and network services	Tracking and Workflow	Conflict Resolution			No Reuse	1
4	Space and Ground Network IT Support	Ground Ops supports Inbound Correspondence Management by maintaining the infrastructure including servers, storage and network services	Routing and Scheduling	Inbound Correspondence Management			No Reuse	2
5	Space and Ground Network IT Support	Ground Ops supports Outbound Correspondence Management by maintaining the infrastructure including servers, storage and network services	Routing and Scheduling	Outbound Correspondence Management			No Reuse	2
6	Space and Ground Network IT Support	Ground Ops supports Change Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Change Management			No Reuse	1
7	Space and Ground Network IT Support	Ground Ops supports Configuration Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Configuration Management			No Reuse	2
8	Space and Ground Network IT Support	Ground Ops supports Requirements Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Requirements Management			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
9	Space and Ground Network IT Support	Ground Ops supports Program / Project Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Program / Project Management			No Reuse	2
10	Space and Ground Network IT Support	Ground Ops supports Governance / Policy Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Governance / Policy Management			No Reuse	0
11	Space and Ground Network IT Support	Ground Ops supports Business Rule Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Business Rule Management			No Reuse	2
12	Space and Ground Network IT Support	Ground Ops supports Quality Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Quality Management			No Reuse	2
13	Space and Ground Network IT Support	Ground Ops supports Risk Management by maintaining the infrastructure including servers, storage and network services	Management of Processes	Risk Management			No Reuse	2
14	Space and Ground Network IT Support	Ground Ops supports Workgroup/Groupware by maintaining the infrastructure including servers, storage and network services	Organizational Management	Workgroup / Groupware			No Reuse	3
15	Space and Ground Network IT Support	Ground Ops supports Network Management by maintaining the infrastructure including servers, routers, switches and firewalls	Organizational Management	Network Management			No Reuse	3

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
16	Space and Ground Network IT Support	Ground Ops supports Strategic Planning and Mgmt by maintaining the infrastructure including servers, storage and network services	Investment Management	Strategic Planning and Mgmt			No Reuse	2
17	Space and Ground Network IT Support	Ground Ops supports Portfolio Management by maintaining the infrastructure including servers, storage and network services	Investment Management	Portfolio Management			No Reuse	1
18	Space and Ground Network IT Support	Ground Ops supports Performance Management by maintaining the infrastructure including servers, storage and network services	Investment Management	Performance Management			No Reuse	2
19	Space and Ground Network IT Support	Ground Ops supports Procurement by maintaining the infrastructure including servers, storage and network services	Supply Chain Management	Procurement			No Reuse	2
20	Space and Ground Network IT Support	Ground Ops supports Sourcing Management by maintaining the infrastructure including servers, storage and network services	Supply Chain Management	Sourcing Management			No Reuse	0
21	Space and Ground Network IT Support	Ground Ops supports Catalog Management by maintaining the infrastructure including servers, storage and network services	Supply Chain Management	Catalog Management			No Reuse	1
22	Space and Ground Network IT Support	Ground Ops supports Ordering / Purchasing by maintaining the infrastructure including servers, storage and network services	Supply Chain Management	Ordering / Purchasing			No Reuse	1

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
23	Space and Ground Network IT Support	Ground Ops supports Invoice / Requisition Tracking and Approval by maintaining the infrastructure including servers, storage and network services	Supply Chain Management	Invoice / Requisition Tracking and Approval			No Reuse	2
24	Space and Ground Network IT Support	Ground Ops supports Content Authoring by maintaining the infrastructure including servers, storage and network services	Content Management	Content Authoring			No Reuse	2
25	Space and Ground Network IT Support	Ground Ops supports Content Review and Approval by maintaining the infrastructure including servers, storage and network services	Content Management	Content Review and Approval			No Reuse	2
26	Space and Ground Network IT Support	Ground Ops supports Tagging and Aggregation by maintaining the infrastructure including servers, storage and network services	Content Management	Tagging and Aggregation			No Reuse	1
27	Space and Ground Network IT Support	Ground Ops supports Content Publishing and Delivery by maintaining the infrastructure including servers, storage and network services	Content Management	Content Publishing and Delivery			No Reuse	2
28	Space and Ground Network IT Support	Ground Ops supports Syndication Management by maintaining the infrastructure including servers, storage and network services	Content Management	Syndication Management			No Reuse	0
29	Space and Ground Network IT Support	Ground Ops supports Document Imaging and OCR by maintaining the infrastructure including servers, scanners, document management software, storage and network services	Document Management	Document Imaging and OCR			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
30	Space and Ground Network IT Support	Ground Ops supports Document Referencing by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Document Referencing			No Reuse	1
31	Space and Ground Network IT Support	Ground Ops supports Document Revisions by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Document Revisions			No Reuse	2
32	Space and Ground Network IT Support	Ground Ops stores, manages & backups 20 TBs of Ground Support data	Document Management	Library / Storage			No Reuse	3
33	Space and Ground Network IT Support	Ground Ops supports Document Review and Approal by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Document Review and Approval			No Reuse	2
34	Space and Ground Network IT Support	Ground Ops supports Document Conversion by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Document Conversion			No Reuse	2
35	Space and Ground Network IT Support	Ground Ops supports Indexing by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Indexing			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
36	Space and Ground Network IT Support	Ground Ops supports Classification by maintaining the infrastructure including servers, document management software, storage and network services	Document Management	Classification			No Reuse	2
37	Space and Ground Network IT Support	Ground Ops supports Knowledge Capture by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Knowledge Capture			No Reuse	2
38	Space and Ground Network IT Support	Ground Ops supports Knowledge Engineering by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Knowledge Engineering			No Reuse	2
39	Space and Ground Network IT Support	Ground Ops supports Information Retrieval by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Information Retrieval			No Reuse	2
40	Space and Ground Network IT Support	Ground Ops supports Information Mapping / Taxonomy by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Information Mapping / Taxonomy			No Reuse	2
41	Space and Ground Network IT Support	Ground Ops supports Information Sharing by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Information Sharing			No Reuse	2
42	Space and Ground Network IT Support	Ground Ops supports Categorization by maintaining the infrastructure including servers, databases, storage and network services	Knowledge Management	Categorization			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
43	Space and Ground Network IT Support	Ground Ops supports Record Linking / Association by maintaining the infrastructure including servers, document management software, storage and network services	Records Management	Record Linking / Association			No Reuse	1
44	Space and Ground Network IT Support	Ground Ops supports Document Classification by maintaining the infrastructure including servers, document management software, storage and network services	Records Management	Document Classification			No Reuse	1
45	Space and Ground Network IT Support	Ground Ops supports Document Retirement by maintaining the infrastructure including servers, document management software, storage and network services	Records Management	Document Retirement			No Reuse	1
46	Space and Ground Network IT Support	Ground Ops supports Digital Rights Management by maintaining the infrastructure including servers, document management software, storage and network services	Records Management	Digital Rights Management			No Reuse	1
47	Space and Ground Network IT Support	Ground Ops supports Modeling by maintaining the infrastructure including servers, storage and network services	Knowledge Discovery	Modeling			No Reuse	3
48	Space and Ground Network IT Support	Ground Ops supports Predictive Analysis by maintaining the infrastructure including servers, storage and network services	Analysis and Statistics	Mathematical			No Reuse	2

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
49	Space and Ground Network IT Support	Ground Ops supports Simulation by maintaining the infrastructure including servers, storage and network services	Knowledge Discovery	Simulation			No Reuse	2
50	Space and Ground Network IT Support	Ground Ops supports Structural / Thermal by maintaining the infrastructure including servers, storage and network services	Analysis and Statistics	Structural / Thermal			No Reuse	1
51	Space and Ground Network IT Support	Ground Ops supports Graphing / Charting by maintaining the infrastructure including servers, storage and network services	Visualization	Graphing / Charting			No Reuse	3
52	Space and Ground Network IT Support	Ground Ops supports Imagery by maintaining the infrastructure including servers, storage and network services	Visualization	Imagery			No Reuse	4
53	Space and Ground Network IT Support	Ground Ops supports Multimedia by maintaining the infrastructure including servers, storage and network services	Visualization	Multimedia			No Reuse	2
54	Space and Ground Network IT Support	Ground Ops supports CAD by maintaining the infrastructure including servers, storage and network services	Visualization	CAD			No Reuse	2
55	Space and Ground Network IT Support	Ground Ops supports Demand Forecasting / Mgmt by maintaining the infrastructure including servers, storage and network services	Business Intelligence	Demand Forecasting / Mgmt			No Reuse	1
56	Space and Ground Network IT Support	Ground Ops supports Balanced Scorecard by maintaining the infrastructure including servers, storage and network services	Business Intelligence	Balanced Scorecard			No Reuse	1

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
57	Space and Ground Network IT Support	Ground Ops supports Decision Support and Planning by maintaining the infrastructure including servers, storage and network services	Business Intelligence	Decision Support and Planning			No Reuse	1

5. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

	SRM Component	Service Area	Service Category	Service Standard	Service Specification (i.e., vendor and product name)
1	Inbound Correspondence Management	Service Access and Delivery	Access Channels	Web Browser	Microsoft Internet Explorer
2	Inbound Correspondence Management	Service Access and Delivery	Access Channels	Wireless / PDA	Palm OS
3	Inbound Correspondence Management	Service Access and Delivery	Access Channels	Collaboration / Communications	N/A
4	Inbound Correspondence Management	Service Access and Delivery	Access Channels	Other Electronic Channels	N/A
5	Outbound Correspondence Management	Service Access and Delivery	Delivery Channels	Internet	NISN
6	Outbound Correspondence Management	Service Access and Delivery	Delivery Channels	Internet	NISN, KICS
7	Outbound Correspondence Management	Service Access and Delivery	Delivery Channels	Extranet	NISN
8	Outbound Correspondence Management	Service Access and Delivery	Delivery Channels	Peer to Peer (P2P)	KICS, NISN
9	Outbound Correspondence Management	Service Access and Delivery	Delivery Channels	Virtual Private Network (VPN)	Cisco Systems
10	Configuration Management	Service Access and Delivery	Service Requirements	Legislative / Compliance	NASA Headquarters
11	Configuration Management	Service Access and Delivery	Service Requirements	Authentication / Single Sign-on	RSA Keon

	SRM Component	Service Area	Service Category	Service Standard	Service Specification (i.e., vendor and product name)
12	Configuration Management	Service Access and Delivery	Service Requirements	Hosting	HP ProLiant, Dell; Linux, Redhat; HP U/X
13	Configuration Management	Service Access and Delivery	Service Transport	Supporting Network Services	Cisco Systems
14	Software Development	Service Platform and Infrastructure	Software Engineering	Test Management	N/A
15	Software Development	Service Platform and Infrastructure	Software Engineering	Modeling	Arena
16	Library / Storage	Service Platform and Infrastructure	Database / Storage	Database	Oracle
17	Library / Storage	Service Platform and Infrastructure	Database / Storage	Storage	Storage Tech, EMC
18	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	HP ProLiant, Dell; Linux, Redhat; HP U/X
19	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	N/A
20	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Peripherals	HP Printers, Lanier Printers
21	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Wide Area Network (WAN)	NISN
22	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	KICS, USA
23	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Cisco Systems
24	Software Development	Service Platform and Infrastructure	Hardware / Infrastructure	Video Conferencing	Microsoft Netmeeting
25	Risk Management	Component Framework	Security	Certificates / Digital Signatures	RSA KEON
26	Risk Management	Component Framework	Security	Supporting Security Services	ISS
27	Graphing / Charting	Component Framework	Presentation / Interface	Static Display	Microsoft Visio, Powerpoint
28	Graphing / Charting	Component Framework	Presentation / Interface	Dynamic Server-Side Display	Microsoft IIS Active Server Pages, Adobe Coldfusion
29	Graphing / Charting	Component Framework	Presentation / Interface	Content Rendering	Autorender Pro
30	Graphing / Charting	Component Framework	Presentation / Interface	Wireless / Mobile / Voice	AT&T, Sprint Nextel/Nokia, Samsung, Research in Motion
31	Configuration Management	Service Interface and Integration	Interoperability	Data Format / Classification	Track Studio
32	Configuration Management	Service Interface and Integration	Integration	Middleware	Oracle
33	Configuration Management	Service Interface and Integration	Integration	Enterprise Application Integration	Documentum

	SRM Component	Service Area	Service Category	Service Standard	Service Specification (i.e., vendor and product name)
34	Record Linking / Association	Service Interface and Integration	Interoperability	Data Format / Classification	N/A
35	Record Linking / Association	Service Interface and Integration	Interoperability	Data Types / Validation	N/A
36	Record Linking / Association	Service Interface and Integration	Interoperability	Data Transformation	N/A
37	Configuration Management	Service Interface and Integration	Interface	Service Discovery	N/A
38	Configuration Management	Service Interface and Integration	Interface	Service Description / Interface	N/A

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?

no

PART THREE

RISK

You should perform a risk assessment during the early planning and initial concept phase of the investmentâ€™s life-cycle, develop a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investmentâ€™s life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

yes

1.a. If yes, what is the date of the plan?

2007-02-19

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

no

COST & SCHEDULE

1. Was operational analysis conducted?

yes

1.a. If yes, provide the date the analysis was completed.

2007-05-10

What were the results of your operational analysis?

Launch and Landing tracks performance at a level higher than IT specific investments, which are imbedded in the various budget elements. Launch and Landing's actual cost came in approximately 1% under plan in FY06. Updates and changes to the Ground Operations Processing Systems follow well-documented and established processes to ensure operability and safety to flight. From requirements generation through acceptance testing and approval of the new ground systems including software and/or hardware, focus is on demonstrating desired performance while increasing reliability, usability, and maintainability. Rigid internal checks including concept, preliminary and critical design reviews are performed throughout the development process. Development is controlled by NSTS 07700 requirements. Products developed in-house are analyzed for failure modes and effects and are tested and verified to work as designed. Hardware changes require a Certification Requirements plan describing the NSTS requirement paragraphs which may be affected, and a Certification Approval Request plan demonstrating compliance with all associated requirements. Prior to funding, all changes to the Ground Operations Processing Systems must be reviewed and approved by a Configuration Control Board and a Level III/IV Board. Large scale changes which have the potential to impact multiple systems are reviewed on a case by case basis by an Engineering Review Board, a Risk Review Board and may require a formal Design Certification Review prior to implementation. The systems of Ground Operations also participate in the annual Planning, Programming, Budgeting, and Execution (PPBE) process to determine which assets require investment to bring their performance, or sustain their performance, within expected and acceptable operating parameters. This survey of the engineering and

operations community seeks technical data on system performance and cost, including cost payback based on investment versus sustained operations and maintenance cost, as well as a system risk assessment that characterizes system risk should the investment not be made versus system risk post investment. Cost, schedule, and risk are used to characterize and prioritize investment candidates during the PPBE process. Considerable weight is given to investments that mitigate significant safety risks. Cost-payback analysis is also considered a significant factor in analyzing which investments the Shuttle Program will make.