

MS Word Exhibit 300 for DME/Mixed (BY2008) (Form) / GSFC Earth Observing Sys Data Info Sys (Item)

Form Report, printed by: System Administrator, **Jan 31, 2007**

OVERVIEW

General Information	
1. Date of Submission:	Jan 26, 2007
2. Agency:	026
3. Bureau:	00
4. Name of this Capital Asset:	GSFC Earth Observing Sys Data Info Sys
Investment Portfolio:	BY OMB 300 Items
5. Unique ID:	026-00-01-02-01-1501-00
(For IT investments only, see section 53. For all other, use agency ID system.)	

All investments

6. What kind of investment will this be in FY2008?
<i>(Please NOTE: Investments moving to O&M ONLY in FY2008, with Planning/Acquisition activities prior to FY2008 should not select O&M. These investments should indicate their current status.)</i>
Mixed Life Cycle
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.
<p>The Earth Observing System (EOS) Data and Information System (EOSDIS) is a comprehensive distributed system designed to support NASA's EOS. EOSDIS archives, manages, and distributes Earth science data from NASA missions and provides spacecraft control and science data processing for the EOS missions. EOSDIS has been archiving and distributing pre-EOS data since 1994. Currently EOSDIS supports both the pre-EOS and EOS data. EOSDIS has been distributing NASA's Earth Science data to a broad user community, enabling research, applications, education and policy analysis. The performance gap addressed by EOSDIS is the traditional lack of quick access by the user community to satellite observations of the Earth and data derived from them.</p> <p>EOSDIS supports Strategic Goal 3 in the 2006 NASA's Strategic Plan: "Develop a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration." In particular, EOSDIS supports sub-goal 3A: "Study Earth from space to advance scientific understanding and meet societal needs." To meet this sub-goal, the satellite data of the past, present and future need to be well organized, preserved, and made accessible to scientists who can derive information and knowledge from the data. The data and information need to be made available to the applications community that adds further value for the benefit of the nation and the world. EOSDIS is the key system in NASA that performs the end-to-end functions for ensuring that the value NASA's Earth science missions is fully realized by the community.</p> <p>Most of EOSDIS is in its operational phase of the life cycle. EOSDIS is now supporting all EOS missions including the latest, the Aura mission launched in July 2004. A large and diverse community has become accustomed to data and information products from EOSDIS as evidenced by the number of users of EOSDIS (over 2.5 million accessing EOSDIS and receiving over 756 terabytes of data in FY 2005). The users have been very satisfied with EOSDIS, according to a survey conducted in FY 2005. The American Customer Satisfaction Index (ACSI) of the customers of EOSDIS was 78, compared to the federal government average of 72.1. At the end of FY 05, EOSDIS archives held about 3.6 petabytes of data, growing at a rate of 3.2 terabytes per day.</p>
9. Did the Agency's Executive/Investment Committee approve this request?
Yes
9.a. If "yes," what was the date of this approval?
Nov 3, 2005
10. Did the Project Manager review this Exhibit?

Yes

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

12.b.1. If "yes," is an ESPC or UESC being used to help fund this investment?

12.b.2. If "yes," will this investment meet sustainable design principles?

12.b.3. If "yes," is it designed to be 30% more energy efficient than relevant code?

13. Does this investment support one of the PMA initiatives?

Yes

If "yes," select the initiatives that apply:

Human Capital	No
Budget Performance Integration	Yes
Financial Performance	No
Expanded E-Government	Yes
Competitive Sourcing	Yes
Faith Based and Community	No
Real Property Asset Management	No
Eliminating Improper Payments	No
Privatization of Military Housing	No
R and D Investment Criteria	No
Housing and Urban Development Management and Performance	No
Broadening Health Insurance Coverage through State Initiatives	No
Right Sized Overseas Presence	No
Coordination of VA and DoD Programs and Systems	No

13.a. Briefly describe how this asset directly supports the identified initiative(s)?

EOSDIS supports Budget Performance Integration by defining and meeting specific performance goals in its planning and implementation. It supports Expanded E-Government through electronic distribution of EOS data to its hundreds of thousands of users, and maintains web sites designed to facilitate access to EOS data by citizens and organizations. It engages in Competitive Sourcing through competitive selection of data/service providers and fostering collaboration with universities and industry.

14. Does this investment support a program assessed using OMB's Program Assessment Rating Tool (PART)?

Yes

14.a. If "yes," does this investment address a weakness found during the PART review?

No

14.b. If "yes," what is the name of the PART program assessed by OMB's Program Assessment Rating Tool?

Earth-Sun System Research

14.c. If "yes," what PART rating did it receive?

Moderately Effective

15. Is this investment for information technology (See section 53 for definition)?

Yes

For information technology investments only:

16. What is the level of the IT Project (per CIO Council's PM Guidance)?

Level 2

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 2006 agency high risk report (per OMB's "high risk" memo)?

No

19. Is this a financial management system?

No

19.a. If "yes," does this investment address a FFIA compliance area?

No

19.a.1. If "yes," which compliance area:

Not Applicable

19.a.2. If "no," what does it address?

19.b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A-11 section 52.

20. What is the percentage breakout for the total FY2008 funding request for the following? (This should total 100%)

Area	Percentage	
Hardware	13.70	
Software	28.80	
Services	55.50	
Other	2.00	
Total	100.00	★

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?

Yes

22. Contact information of individual responsible for privacy related questions

Name	Patti Stockman
Phone Number	202- 358-4787
Title	NASA Privacy Officer

Email	patti.stockman@nasa.gov
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23. *Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?*

Yes

PERFORMANCE

Performance Information

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 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 or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for all non-IT investments and for existing IT investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2006.

Table 1

	Fiscal Year	Strategic Goal(s) Supported	Performance Measure	Actual/baseline (from Previous Year)	Planned Performance Metric (Target)	Performance Metric Results (Actual)
1	2005	Study Earth from space to advance scientific understanding and meet societal needs	Evolve the Earth System Science data and information system (including EOSDIS) with new information technologies and approaches while engaging the science user community to provide the remote sensing portion of Earth information systems of the future as envisioned by the NRC and others. (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	Current EOSDIS Architecture	EOSDIS Evolution Team develops Evolution Strategy for EOSDIS that is evaluated and approved by FACA advisory committee	Study team has examined several ideas for evolving EOSDIS elements. Implementation plan is under preparation
2	2005	Study Earth from space to advance scientific understanding and meet societal needs	Increase the number (2,410,205) of users by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability-, integration, and interfacing with other data systems and services.	EOSDIS; 2,410,205 distinct users as of October 1, 2004	Increase the number of distinct users of NASA data that are provided support and services (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	2,526,685 distinct users

3	2005	Study Earth from space to advance scientific understanding and meet societal needs	Improve level of customer satisfaction as measured by ACSI Score by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability-, integration, and interfacing with other data systems and services.	Federal Government Average score for American Customer Satisfaction Index (ACSI) of 72.1	American Customer Satisfaction Index (ACSI) (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	EOSDIS ACSI measured in August 2005 was 78
4	2006	Study Earth from space to advance scientific understanding and meet societal needs	Evolve the Earth System Science data and information system (including EOSDIS) with new information technologies and approaches while engaging the science user community to provide the remote sensing portion of Earth information systems of the future as envisioned by the NRC and others. (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	Current EOSDIS Architecture	EOSDIS Evolution Team develops Evolution Strategy for EOSDIS that is evaluated and approved by FACA advisory committee	EOSDIS evolution strategy and Step 1 Implementation Plan were approved by NASA Science Mission Directorate. Implementation is underway.
5	2006	Study Earth from space to advance scientific understanding and meet societal needs	Increase the number (2,526,685) of users served by end of FY 2005 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability, integration, and interfacing with other data systems and services.	Number of unique users supported by EOSDIS at beginning of FY 2006 (2,526,685). EOSDIS with version 6.1 of ECHO.	Increase the number of distinct users of NASA data that are provided support and services (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	3,428,199 distinct users (extrapolated from actuals through end of June)
6	2006	Study Earth from space to advance scientific understanding and meet societal needs	Improve upon ACSI Score of FY 2006 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability, integration, and interfacing with other data systems and services	Federal Government Average score for American Customer Satisfaction Index (ACSI) of 71	Average Customer Satisfaction Index (ACSI) (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	EOSDIS ACSI measured in August 2005 was 78. Survey for FY 06 will be conducted later in the year.

7	2007	Study Earth from space to advance scientific understanding and meet societal needs	Increase the number (TBD) of users served by end of FY 2006 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability-, integration, and interfacing with other data systems and services.	Number of unique users supported by EOSDIS at beginning of FY 2004 (2,373,537). EOSDIS with version 5.5 of ECHO.	Increase the number of distinct users of NASA data that are provided support and services (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
8	2007	Study Earth from space to advance scientific understanding and meet societal needs	Improve upon ACSI Score of FY 2007 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability, integration, and interfacing with other data systems and services	Federal Government Average score for American Customer Satisfaction Index (ACSI) of 71	Average Customer Satisfaction Index (ACSI) (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
9	2008	Study Earth from space to advance scientific understanding and meet societal needs	Increase the number (TBD) of users served by end of FY 2007 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability-, integration, and interfacing with other data systems and services.	Number of unique users supported by EOSDIS at beginning of FY 2004 (2,373,537). EOSDIS with version 5.5 of ECHO.	Increase the number of distinct users of NASA data that are provided support and services (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
10	2008	Study Earth from space to advance scientific understanding and meet societal needs	Improve upon ACSI Score of FY 2007 by developing and implementing, with domestic and international partners, an information systems architecture that facilitates the distribution and use of earth science data and focuses on interoperability-, integration, and interfacing with other data systems and services	Federal Government Average score for American Customer Satisfaction Index (ACSI) of 71	Average Customer Satisfaction Index (ACSI) (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD

All new IT investments initiated for FY 2005 and beyond must use Table 2 and are required to use the FEA Performance Reference Model (PRM). Please use Table 2 and the PRM to identify the performance information pertaining to this major IT investment. 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 at least four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov.

Table 2

	Fiscal Year	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
1	2005	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	2,410,205 distinct users	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	2,526 685 distinct users
2	2005	Technology	Information and Data	External Data Sharing	External Data Sharing	Number of distinct, operational data partners (=3) and client partners (=2) participating in the EOS Clearinghouse	Maintain or increase number of data and client partners.	Five ECHO data center partners (GES, LP, ORNL, SEDAC, ASF) and two client partners (Mercury-EOS (ORNL) and Power User Interface (ESDIS))
3	2005	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	214,221 users received EOSDIS data in FY2004	Maintain or increase the number of users who receive EOSDIS data within 5%	Number of distinct users who received data in FY2005 is 185,618 plus users receiving data via direct downloads from Data Pools
4	2005	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time it takes to respond to users in FY2004 was one day	Maintain or decrease the average time it takes to respond to users	Average time it took to respond to users in FY2005 is one day
5	2006	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2005	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	3,428,199 distinct users (extrapolated from actuals through end of June)
6	2006	Technology	Information and Data	External Data Sharing	External Data Sharing	Search and Retrieval Access to EOS data using ECHO infrastructure.	Improve availability and accessibility of data held in EOS archives systems for access by end users.	Broader suite of data made available through ECHO. There are now 9 ECHO data center partners (GES, LP, ORNL, SEDAC, ASF, NSIDC, ASDC, PO, MODAPS) and two client partners (Mercury-EOS (ORNL) and Power User Interface (ESDIS))
7	2006	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users that received EOSDIS data in FY2005 -	Maintain or increase the number of users who receive EOSDIS data	179, 327 distinct users (extrapolated from actuals through the end of June, excluding data pool)

8	2006	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2005 was one day	Maintain or decrease the average time it takes to respond to users	Average time it took to respond to users in FY2006 is one day when manual intervention is involved. However, usage of Data Pools for electronic access to data has increased, and in those cases the response to users occurs within a few minutes.
9	2007	Technology	Information and Data	External Data Sharing	External Data Sharing	Access to native ECHO services through custom protocols. No native ECHO web services.	Move access to native ECHO services to web services standards. All native ECHO services will be available using web services standards.	TBD
10	2007	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2006	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
11	2007	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users that received EOSDIS data in FY2006	Maintain or increase the number of users who receive EOSDIS data	TBD
12	2007	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2006	Maintain or decrease the average time it takes to respond to users	TBD
13	2008	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2007	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
14	2008	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users received EOSDIS data in FY2007	Maintain or increase the number of users who receive EOSDIS data	TBD
15	2008	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2007	Maintain or decrease the average time it takes to respond to users	TBD
16	2008	Technology	Information and Data	External Data Sharing	External Data Sharing	Single interaction with external web services.	Provide brokering of services with data products.	TBD
17	2006	Technology	Financial (Technology)	Operations and Maintenance Costs	Operations and Maintenance Costs	Reduce number of requirements engineers and designers	Reduce number by 10 FTE	TBD

18	2007	Technology	Financial (Technology)	Operations and Maintenance Costs	Operations and Maintenance Costs	Reduce number of programmers and testers	Reduce number by 10 FTE	TBD
19	2008	Technology	Financial (Technology)	Operations and Maintenance Costs	Operations and Maintenance Costs	Reduce number of archive managers and systems engineers	Reduce number by 10 FTE	TBD
20	2009	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2008	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
21	2009	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users received EOSDIS data in FY2008	Maintain or increase the number of users who receive EOSDIS data	TBD
22	2009	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2008	Maintain or decrease the average time it takes to respond to users	TBD
23	2010	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2009	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
24	2010	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users received EOSDIS data in FY2009	Maintain or increase the number of users who receive EOSDIS data	TBD
25	2010	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2009	Maintain or decrease the average time it takes to respond to users	TBD
26	2011	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2010	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
27	2011	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users received EOSDIS data in FY2010	Maintain or increase the number of users who receive EOSDIS data	TBD
28	2011	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2010	Maintain or decrease the average time it takes to respond to users	TBD

29	2012	Customer Results	Service Coverage	New Customers and Market Penetration	New Customers and Market Penetration	Number of distinct users supported in 2011	Increase number of distinct users (OMB-approved Program Assessment Rating Tool (PART) measure for this project.)	TBD
30	2012	Mission and Business Results	General Science and Innovation	Scientific and Technological Research and Innovation	Scientific and Technological Research and Innovation	Number of users received EOSDIS data in FY2011	Maintain or increase the number of users who receive EOSDIS data	TBD
31	2012	Processes and Activities	Cycle Time and Timeliness	Timeliness	Timeliness	Average time to respond to users in FY2011	Maintain or decrease the average time it takes to respond to users	TBD

EA

Enterprise Architecture (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

1.a. If "no," please explain why?

Above answer is 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.

EOSDIS

2.b. If "no," please explain why?

Service Reference Model

3. 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 Domain	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
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1	Process Tracking	The service domains, service types and components of EOSDIS are not a natural fit to the SRM since EOSDIS is a data and information system that processes, archives and distributes large quantities of global, satellite-acquired geophysical data. The discussion of the SRM tends to focus on business IT systems. However, EOSDIS can be mapped into the SRM with digital data products substituting for documents referred to in SRM. Most processes for production and managing data products are automated.	Process Automation Services	Tracking and Workflow	Process Tracking			No Reuse	20.00
2	Change Management	Business Management Services in SRM corresponds to Project Management in EOSDIS. Automated and web-based processes exist in the ESDIS Project that map to the Management of Process service type of the SRM.	Business Management Services	Management of Processes	Change Management			No Reuse	10.00
3	Configuration Management	There are components in the ESDIS Project that map to Organizational Management service type. The web-based configuration management system used in the ESDIS Project, for example, is a Requirements' Management component as well as a Workgroup/Groupware component.	Business Management Services	Management of Processes	Configuration Management			No Reuse	10.00
4	Network Management	There are components in the ESDIS Project that map to Organizational Management service type. The web-based configuration management system used in the ESDIS Project, for example, is a Requirements' Management component as well as a Workgroup/Groupware component.	Business Management Services	Organizational Management	Network Management			No Reuse	3.00
5	Catalog Management	Treating the supply chain here as the chain starting with the satellite data acquisition and ending with the research scientist or an applications' user, there are several automated capabilities in EOSDIS at the head of the chain to cover: planning and scheduling acquisition of data and generation of derived data products; managing the catalog and inventory of the data products (Catalog Management); and facilitating users' searches and ordering (Ordering/Purchasing; Storefront/Shopping Cart).	Business Management Services	Supply Chain Management	Catalog Management			No Reuse	4.00

6	Storefront / Shopping Cart	Treating the supply chain here as the chain starting with the satellite data acquisition and ending with the research scientist or an applications' user, there are several automated capabilities in EOSDIS at the head of the chain to cover: planning and scheduling acquisition of data and generation of derived data products; managing the catalog and inventory of the data products (Catalog Management); and facilitating users' searches and ordering (Ordering/Purchasing; Storefront/Shopping Cart).	Business Management Services	Supply Chain Management	Storefront / Shopping Cart			No Reuse	4.00
7	Outbound Correspondence Management	The aspect of users' searching and ordering data and the systems' responding to the orders, informing them of the receipt of orders and their status, providing them information when data are staged and ready for ftp pick-up or when data are mailed via media are all aspects of Outbound Correspondence Management.	Process Automation Services	Routing and Scheduling	Outbound Correspondence Management			No Reuse	8.00
8	Tagging and Aggregation	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Content Management	Tagging and Aggregation			No Reuse	25.00
9	Library / Storage	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Document Management	Library / Storage			No Reuse	25.00
10	Document Review and Approval	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Document Management	Document Review and Approval			No Reuse	15.00
11	Document Conversion	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Document Management	Document Conversion			No Reuse	10.00

12	Indexing	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Document Management	Indexing			No Reuse	2.00
13	Classification	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Document Management	Classification			No Reuse	1.00
14	Information Retrieval	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Knowledge Management	Information Retrieval			No Reuse	30.00
15	Information Mapping / Taxonomy	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Knowledge Management	Information Mapping / Taxonomy			No Reuse	1.00
16	Information Sharing	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Knowledge Management	Information Sharing			No Reuse	4.00
17	Knowledge Capture	The digital data products produced by EOSDIS are a result of many scientific Principal Investigators' research and peer-reviewed algorithms. As such they constitute significant investment by NASA and intellectual capital. With this definition, EOSDIS fits well in the Digital Asset Services Domain of the SRM.	Digital Asset Services	Knowledge Management	Knowledge Capture			No Reuse	5.00

18	Customer / Account Management	In conducting its business, the ESDIS Project uses most of the components listed under the Support Services Domain of the SRM in some form or the other. The Customer Services Domain is a direct mapping since EOSDIS does have a large customer community and provides components supporting Customer/Account Management, Customer Feedback, and several components under the Customer Initiated Assistance including On-Line Help, On-line Tutorials, Self-Service and Assistance Request.	Customer Services	Customer Relationship Management	Customer / Account Management			No Reuse	5.00
19	Customer Feedback	In conducting its business, the ESDIS Project uses most of the components listed under the Support Services Domain of the SRM in some form or the other. The Customer Services Domain is a direct mapping since EOSDIS does have a large customer community and provides components supporting Customer/Account Management, Customer Feedback, and several components under the Customer Initiated Assistance including On-Line Help, On-line Tutorials, Self-Service and Assistance Request.	Customer Services	Customer Relationship Management	Customer Feedback			No Reuse	3.00
20	Product Management	EOSDIS manages all the data products it provides and tracks customer orders. It tracks the products end-to-end – starting with the reception of data from the satellites to the delivery of data products to specific customers.	Customer Services	Customer Relationship Management	Product Management			No Reuse	65.00
21	Surveys	EOSDIS conducts customer satisfaction surveys from the point of view of identifying issues with the service provided so that improvements can be made. An annual survey study of EOSDIS customers is performed by Claes Fornell International (CFI) Group. In addition, EOSDIS provides customers with opportunity to comment voluntarily, and also collects the statistics on e-mail domains to obtain statistical aggregates of categories of users being served.	Customer Services	Customer Relationship Management	Surveys			No Reuse	2.00
22	Subscriptions	EOSDIS provides the ability for customers to join e-mail discussion groups and forums, with respect to issues such data products, data usage, data formats, and contributed software tools.	Customer Services	Customer Preferences	Subscriptions			No Reuse	1.00

23	Personalization	EOSDIS provides on-line help, answers to Frequently Asked Questions (FAQs), access to help desks if a customer needs human help by phone, and on line tutorials. All these mechanisms help customers in their process of searching for and ordering/accessing data.	Customer Services	Customer Preferences	Personalization			No Reuse	4.00
24	Online Help	EOSDIS provides on-line help, answers to Frequently Asked Questions (FAQs), access to help desks if a customer needs human help by phone, and on line tutorials. All these mechanisms help customers in their process of searching for and ordering/accessing data.	Customer Services	Customer Initiated Assistance	Online Help			No Reuse	7.00
25	Online Tutorials	While on-line and telephone help is available in EOSDIS as indicated above, most customers can search and order/access data on their own. There are several user interfaces that customers can use. Access to EOS data products is generally through the EOS Data Gateway (EDG) that permits users to search for and obtain data without knowing which of the DAACs holds the data. The non-EOS data held by the DAACs can be accessed via either the EDG or some of the DAAC-specific user interfaces.	Customer Services	Customer Initiated Assistance	Online Tutorials			No Reuse	1.00
26	Self-Service	Each of the DAACs in EOSDIS has a user support group that provides assistance to users via phone or e-mail. These can be used by customers if they are unable to get sufficient help from the on-line mechanisms indicated above.	Customer Services	Customer Initiated Assistance	Self-Service			No Reuse	5.00

Technical Reference Model
4. 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
Process Tracking	Service Access and Delivery	Access Channels	Collaboration / Communications
Catalog Management	Service Access and Delivery	Access Channels	Other Electronic Channels
Self-Service	Service Access and Delivery	Delivery Channels	Internet
Self-Service	Service Access and Delivery	Delivery Channels	Intranet
Assistance Request	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment
Self-Service	Service Interface and Integration	Interface	Service Discovery

SRM Component	Service Area	Service Category	Service Standard
Self-Service	Service Interface and Integration	Interface	Service Description / Interface
Information Sharing	Service Access and Delivery	Service Requirements	Legislative / Compliance
Information Retrieval	Service Interface and Integration	Integration	Middleware
Library / Storage	Service Interface and Integration	Interoperability	Data Format / Classification
Library / Storage	Service Interface and Integration	Interoperability	Data Types / Validation
Network Management	Service Access and Delivery	Service Transport	Supporting Network Services
Information Retrieval	Service Platform and Infrastructure	Database / Storage	Database
Self-Service	Service Access and Delivery	Service Transport	Service Transport
Information Retrieval	Service Platform and Infrastructure	Support Platforms	Platform Dependent
Information Retrieval	Service Platform and Infrastructure	Database / Storage	Database
Knowledge Capture	Service Platform and Infrastructure	Support Platforms	Platform Independent
Tagging and Aggregation	Service Platform and Infrastructure	Support Platforms	Platform Dependent
Configuration Management	Service Platform and Infrastructure	Software Engineering	Software Configuration Management
Information Sharing	Service Platform and Infrastructure	Software Engineering	Test Management
Information Sharing	Service Platform and Infrastructure	Software Engineering	Modeling
Library / Storage	Service Platform and Infrastructure	Database / Storage	Database
Library / Storage	Service Platform and Infrastructure	Database / Storage	Storage
Library / Storage	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers
Library / Storage	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices
Library / Storage	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)
Process Tracking	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards
Process Tracking	Component Framework	Security	Certificates / Digital Signatures
Library / Storage	Component Framework	Security	Supporting Security Services
Information Retrieval	Component Framework	Presentation / Interface	Dynamic Server-Side Display

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

Yes

5.a. If "yes," please describe.

Yes.

For performing its infrastructure business functions, the ESDIS Project will utilize as appropriate the services provided by existing and other Federal E-Government initiatives.

6. Does this investment provide the public with access to a government automated information system?

Yes

6.a. If "yes," does customer access require specific software (e.g., a specific web browser version)?

No

6.a.1. If "yes," provide the specific product name(s) and version number(s) of the required software and the date when the public will be able to access this investment by any software (i.e. to ensure equitable and timely access of government information and services).

RISK

Risk Management

You should perform a risk assessment during the early planning and initial concept phase of the investment'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 investment'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?

Jun 26, 2006

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

Yes

1.c. If "yes," describe any significant changes:

We have identified additional risks since the implementation of the EOSDIS Elements Evolution has now started.

2. If there is currently no plan, will a plan be developed?

2.a. If "yes," what is the planned completion date?

2.b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule: (O&M investments do NOT need to answer.)

The EOSDIS investment is mostly in steady state now. A small part of its budget is being used for development, modernization and enhancement during FY 2006-2008. In the past, when the investment involved extensive development activities, the cost estimates were based on the best knowledge of the requirements and, contingencies were held commensurate with risk and uncertainty. In the analysis of alternative approaches to EOSDIS Elements Evolution, the risks have been taken into account in analyzing costs and making decisions on which approach to use.

COST & SCHEDULE

Cost and Schedule Performance

1. Does the earned value management system meet the criteria in ANSI/EIA Standard – 748?

No

2. Answer the following questions about current cumulative cost and schedule performance. The numbers reported below should reflect current actual information. (Per OMB requirements Cost/Schedule Performance information should include both Government and Contractor Costs):

2.a. What is the Planned Value (PV)?

1,547.850

2.b. What is the Earned Value (EV)?

1,547.850

2.c. What is the actual cost of work performed (AC)?

1,508.721

2.d. What costs are included in the reported Cost/Schedule Performance information?

Contractor and Government

2.e. "As of" date:

Sep 15, 2006

3. What is the calculated Schedule Performance Index (SPI= EV/PV)?

1.00

4. What is the schedule variance (SV = EV-PV)?

0.000

5. What is the calculated Cost Performance Index (CPI = EV/AC)?

1.03

6. What is the cost variance (CV = EV-AC)?

39.129

7. Is the CV or SV greater than 10%?

No



7.a. If "yes," was it the CV or SV or both?

7.b. If "yes," explain the variance.

Cost and schedule variances are within thresholds.

7.c. If "yes," what corrective actions are being taken?

Cost and schedule variances are within thresholds.

7.d. What is most current "Estimate at Completion"?

8. Have any significant changes been made to the baseline during the past fiscal year?

No

8.a. If "yes," when was it approved by OMB?

Actual Performance against the Current Baseline

Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current

Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003" / "04/28/2004") and the baseline and actual total costs (in \$ Millions).

	Description of Milestone	Initial End Date	Initial Total Cost (\$mil)	Planned End Date	Actual End Date	Planned Total Cost (\$mil)	Actual Total Cost (\$mil)	Schedule Variance (# of days)	Cost Variance (\$mil)	Percent Complete
1	Version 0 EOSDIS	Oct 1, 1990	89.300	Aug 15, 1994	Aug 15, 1994	89.300	80.800	0	-8.500	100.00
2	TRMM Unique System	Oct 1, 1990	185.800	Sep 30, 1997	Sep 30, 1997	185.800	183.500	0	-2.300	100.00
3	EOSDIS Version 2.0 (LandSat-7 & early orbit)	Oct 1, 1990	250.200	Mar 1, 1999	Mar 1, 1999	250.200	248.100	0	-2.100	100.00
4	EOSDIS Version 2 (Terra early orbit support)	Oct 1, 1991	621.700	Jul 1, 1999	Jul 1, 1999	621.700	621.600	0	-0.100	100.00
5	EOSDIS Version (full support for Terra and Landsat-7)	Oct 1, 1998	61.300	Dec 31, 1999	Dec 31, 1999	61.300	62.700	0	1.400	100.00
6	EOSDIS Version 3 (full support for Aqua, ICESAT)	Oct 1, 2000	220.400	Dec 31, 2000	Dec 31, 2000	220.400	222.200	0	1.800	100.00
7	EOSDIS Version 4 (full support for Aura, SORCE)	Oct 1, 2000	53.800	Sep 30, 2002	Sep 30, 2002	53.800	52.600	0	-1.200	100.00
8	Getting Ready for Aura	Oct 1, 2002	33.300	Mar 31, 2004	Sep 30, 2003	33.300	20.639	-131	-12.661	100.00
9	Continuing DAAC Operations	Oct 1, 1994	500.776	Sep 30, 2003	Sep 30, 2003	500.776	501.576	0	0.800	100.00
10	Continuing EOS Operations	Oct 1, 1998	575.903	Sep 30, 2003	Sep 30, 2003	575.906	571.006	0	-4.900	100.00
11	Continuing Science and Mission Operations	Oct 1, 2003	278.350	Sep 30, 2004	Sep 30, 2004	278.350	314.110	0	35.760	100.00
12	Continuing Science Operations	Oct 1, 2004	163.814	Sep 30, 2005	Sep 30, 2005	163.814	96.374	0	-67.440	100.00
13	Continuing Science Operations	Oct 1, 2005	124.450	Sep 30, 2006	Sep 30, 2006	124.450	93.952	0	-30.498	75.00
14	Continuing Science Operations	Oct 1, 2006	116.933	Sep 30, 2007		116.933				0.00
15	Continuing Science Operations	Oct 1, 2007	123.956	Sep 30, 2008		123.956				0.00

16	Continuing Science Operations	Oct 1, 2008	113.650	Sep 30, 2009		113.650				0.00
17	Continuing Science Operations	Oct 1, 2009	112.339	Sep 30, 2010		112.339				0.00
18	Continuing Science Operations	Oct 1, 2010	107.324	Sep 30, 2011		107.324				0.00
19	Continuing Science Operations	Oct 1, 2011	107.237	Sep 30, 2012		107.237				0.00
20	EOS Clearing HOuse (ECHO) Release 7	Oct 1, 2004	11.148	Sep 30, 2005	Sep 30, 2005	11.148	0.000	0	-11.148	100.00
21	EOS Clearing HOuse (ECHO) Release 7	Oct 1, 2005	6.800	Sep 30, 2006	Sep 30, 2006	6.800	4.669	0	-2.131	75.00
22	EOS Clearing HOuse (ECHO) Release 8	Oct 1, 2006	6.340	Sep 30, 2007		6.340				0.00
23	ECS rearchitcting: Transition Sybase to Linux	Jan 1, 2006	7.000	Sep 30, 2006	Sep 30, 2006	7.000	6.429	0	-0.571	75.00
24	ECS rearchitcting: Migrate from AMASS to StorNext Storage Manager	Oct 1, 2006	8.000	Sep 30, 2007		8.000				0.00
25	ECS rearchitcting: Deliver Release 7.21 (all code on Linux baseline; simplification/r education in source code)	Oct 1, 2007	3.000	May 31, 2008		3.000				0.00
26	Develop and test new archive/information system at GDAAC	Jan 1, 2006	4.047	Sep 30, 2006	Sep 30, 2006	4.047	2.395	0	-1.652	75.00
27	Implement and Transition to new archive/information system at GDAAC	Oct 1, 2006	6.920	Sep 30, 2007		6.920				0.00

28	Reduce operations at GDAAC to a single system using the new hardware/software	Oct 1, 2007	2.484	Sep 30, 2008		2.484				0.00
29	Develop and test new archive/information system at ASDC	Jan 1, 2006	2.288	Sep 30, 2006	Sep 30, 2006	2.288	1.659	0	-0.629	67.00
30	Implement and Transition to new archive/information system at ASDC	Oct 1, 2006	3.133	Sep 30, 2007		3.133				0.00
31	Reduce operations at ASDC to a single system using the new hardware/software	Oct 1, 2007	1.868	Sep 30, 2008		1.868				0.00
32	Develop MODAPS LAADS System	Jan 1, 2006	2.274	Sep 30, 2006	Sep 30, 2006	2.274	1.430	0	-0.844	75.00
33	Operate and assess MODAPS LAADS	Oct 1, 2006	1.837	Sep 30, 2007		1.837				0.00