National Oceanic and Atmospheric Administration

Strategic Information Technology Plan

2008-2015

NOAA Office of the Chief Information Officer

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NOAA Strategic Information Technology Plan

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Purpose

The purpose of the NOAA IT Strategic Plan (SITP) is to: describe the future direction of NOAA's investment in Information Technology, define specific goals, objectives, key activities, and provide a basis for assessing progress in NOAA's IT program. The SITP aligns IT strategy with NOAA business goals and strategy together with the Department of Commerce IT strategic planning. The guiding documents include the NOAA Strategic Plan, 2006-2011, the NOAA Annual Guidance Memorandum 2010-2014, and the Department of Commerce Strategic IT Plan, 2007-11.

This document is forward-looking in that it focuses its attention on currently funded developmental initiatives or planned initiatives identified for funding, rather than ongoing operations and maintenance. Specific details on each of these initiatives may be found in Office of Management and Budget (OMB) Exhibit 300 documents or NOAA Program Operating Plans.

The previous SITP version was published in July 2007. With the timing of this version in February 2008, the SITP is now logistically positioned in the annual cycle of IT governance artifacts to use the Operational IT Plan and IT investment Operational Analyses as input. The SITP is now able to guide development of the NOAA 2011-2015 Program Operating Plans (POPs) from NOAA's Planning Programming Budgeting and Execution System (PPBES). Appendix 1, IT Governance, visually depicts the SITP, IT, and PPBES processes at NOAA.

Most of the content in the 2008 version is unchanged from 2007, with the exception of the addition of a new Mission Support Sub-Goal, Modeling and Observing Infrastructure. The Modeling and Observing Infrastructure Sub-Goal reorganizes observing and satellite systems under a common program. New information for this 2008 version may be found primarily in the Appendices, including new considerations for the FY10 NOAA Program, a list of the PPBES Goals teams linked with which NOAA Mission Goals, the BY09 Exhibit 53, and highlights from the Enterprise Architecture 2008 submission to OMB.

The Importance of Information Technology in NOAA

NOAA's mission is to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs. The fulfillment of this mission requires NOAA to observe, collect, process, evaluate, disseminate, and archive vast quantities of environmental information and information products. The effective use of information technology (IT) is critical to NOAA's ability to accomplish its mission. Because of this, IT is integrated into virtually all aspects of NOAA's mission goals and cross cut priorities, and NOAA's Strategic Plan recognizes the critical role of information services.

Information technology allows NOAA to increase the amount and quality of environmental data collected. IT is an integral part of environmental observing and data collection systems, including radar, sensors, and satellite systems. Once collected, the data are evaluated and processed with Information Technology to create useful products for the Nation.

IT allows NOAA to disseminate products to the public in a timely manner. For example, ability to deliver information via the internet is mission critical. According to www.HitWise.com, a leading online web intelligence service, their business intelligence report on internet searches driving traffic to government websites during the four weeks ending December 29, 2007 shows National Weather Service and NOAA ranked in 1st and 7th positions respectively for internet searches in the US – with a total volume of 0.65%. Another HitWise report for news industry searches during the same December period shows weather-related searches (including NWS explicitly) ranked in the 1st, 2ns, 4th, and 7th searches within the Top-10 news searches on the US internet, accounting for a total volume of 1.7% of searches. This intelligence does not include other ways that customers reach NOAA via internet, such with repeat customers, established affinities, and other links. In the case of a weather warning, the internet, systems such as the NOAA Weather Radio system, and links to emergency management offices are enabled by IT. NOAA disseminates IT-enabled products in "near real-time" to allow the preparation of forecasts. IT resources produced information such as nautical charts, and management tools such as quotas for fish species. NOAA also serves the research community's need for reliable and responsive access to NOAA data covering extended periods of time.

NOAA uses IT to create and preserve the Nation's long-term environmental record. The Nation's ability to make informed decisions affecting the environment and the economy hinge upon the integrity and completeness of environmental datasets. As NOAA collects and processes ever larger volumes of environmental data, the systems that archive and preserve the data for posterity must keep pace.

Managing information resources across the NOAA enterprise and ensuring the confidentiality, integrity, and availability of NOAA information management systems is vital to ensuring the success of NOAA's mission. The strategic application of information resources is also important in ensuring that NOAA resources are used in a cost-effective manner.

Overall Strategic Objective for Information Technology

The NOAA Information Technology Services program overall strategic objective is to develop a secure, reliable, technically-robust operating environment to support NOAA's mission goals and ensure the highest data quality for emergency management officials, decision-makers, researchers, and the general public. This program recognizes the importance of information technology in NOAA and must be poised to support the changing mission requirements in the decade ahead. The vision of "an informed society that uses a comprehensive understanding of the role of the oceans, coasts, and atmosphere in the global ecosystem to make the best social and economic decisions" as stated in NOAA's Strategic Plan for FY 2006-FY 2011 will bring challenges in information technology, information security, and network operations for the next five years. Investments will be required not only in hardware, software, and telecommunications, but also in information security, new processes, and human capital. Developing state-of-the-art, robust, fault-tolerant information systems and networks, ensuring the security of the enterprise, implementing an IT architecture management framework, and providing useful data management tools will be key to NOAA's future.

Strategic Goals

NOAA's mission hinges on its ability to use sophisticated Information Technology (IT) to gather, process, and disseminate environmental information. With both weather and climate sensitive industries accounting for approximately one-third of the United States' Gross Domestic Product, government agencies, businesses, and citizens continuously turn to NOAA for accurate environmental products and information. NOAA's IT and the people that manage and operate it are, therefore, critical to NOAA's mission and our Nation's economic strength, environmental vitality, and human health.

NOAA's Office of the Chief Information Officer (OCIO) is responsible for providing IT leadership, mission assurance, and high-performance computing capabilities. As NOAA responds to the exponential growth of environmental data; the threat from increasingly complicated and potentially damaging information attacks; the growing skill set requirement for NOAA IT talent; the complex fragmentation of IT services and systems; and the demand for continuous operation during times of crises, NOAA's IT must rapidly evolve through modernization, or risk tremendous loss of mission functionality.

These risks shall be addressed by a strategic plan that transforms NOAA's IT into a secure, agile, and innovative enterprise. The plan must drive towards improving processes that acquire, manage, and secure NOAA's IT; attract and retain a world-class technical workforce; and apply efficient ways to scale and grow IT infrastructure. The NOAA Strategic IT Plan incorporates strategic direction from many sources, including the NOAA OCIO 500-Day Plan. The strategies from the NOAA OCIO 500-Day Plan are shown below:

Strategy #1 – Protect and defend NOAA's IT systems and information

The OCIO is committed to securing NOAA's information enterprise. Information is central to NOAA's mission; any amount of data loss, network failures, or malicious intrusions can result in far reaching damage. Attacks on NOAA's systems are continuous and, given the sophistication of attack tools, the threat is constantly increasing. IT Security is not only a priority, but a necessity to defend and protect the NOAA mission. The OCIO will define and execute a comprehensive IT Security strategy to address this increasing risk. Leveraging our accomplishments in the area of IT security, while understanding the need to constantly raise the bar, the NOAA CIO Community will enhance its security capabilities to meet the demands of a vibrant and growing IT environment. The key focus areas are to streamline and automate security processes enterprise-wide, and to develop a robust IT Security Architecture. Achieving this goal will ensure NOAA's mission success through information confidentiality, integrity, and availability.

Strategy #2 – Maintain continuous IT services and information before, during, and after natural or man-made disasters

The OCIO will ensure that IT services and information delivery becomes more resilient in the face of catastrophic failures, or unforeseen natural or man-made disasters. NOAA predicts and responds to hurricanes, tornados, and floods on behalf of the nation. When one of these events disrupts a NOAA facility or requires NOAA disaster responders, IT must remain available. The single points of failure within NOAA's infrastructure increase the likelihood that an unforeseen event impacts NOAA operations. This requires a continuity of critical infrastructure strategy to ensure that NOAA IT mission-essential functions are failsafe, and NOAA IT can respond to crises requiring IT capabilities in Mobile Emergency Response System technology. The risks of surges or outages disrupting IT continuity will be assessed on a regular basis by pre-planning for disaster situations, conducting exercises, and mitigating failure points. The end result will be NOAA's reliable information delivery (e.g. watches, warnings); an ability to avoid IT discontinuity; and resilience when confronted with disasters.

Strategy #3 – Develop the IT knowledge and skills needed to support NOAA's mission

The OCIO is dedicated to recruiting, developing and retaining a cadre of highly capable IT professionals with the critical competencies needed to enable NOAA's mission. This is a formidable challenge given the world-wide demand for IT talent. The CIO Community must keep pace with evolving technological advances by defining a comprehensive IT workforce strategy. The OCIO will champion workforce investment and competency requirements, creative recruitment and incentive strategies, and training, education and certification programs. Achieving this goal will ensure NOAA's future.

Strategy #4 – Scale NOAA's IT infrastructure, computing, and dissemination capabilities to keep pace with observing capabilities

NOAA's IT infrastructure must be scalable with sufficient computing and dissemination capacity to keep pace with the growing volume of environmental data products. In its current state, NOAA's IT infrastructure has gradually evolved to handle current requirements for gathering, processing, and distributing information. However, the volumes of data collected from new observing systems, and the exponential growth of model data, are increasing at a pace that dwarfs the growth of our IT infrastructure. If NOAA's investment in IT does not evolve to meet these new requirements, NOAA risks its ability to transport and use relevant environmental data from operational observing platforms. The OCIO will develop and execute necessary plans to manage this expected growth in information volume and complexity. This effort requires that NOAA extend its architecture to encompass both data networking and dissemination; to increase its High Performance Computing capacity; and to ensure programmatic integration by facilitating more coordinated IT planning in the NOAA budgeting process. Through these efforts, NOAA will be able to strategically grow and adapt to fully utilize new and evolving data resources by ensuring IT infrastructure scalability and capacity.

Strategy #5 – Maximize enterprise-wide solutions and services

The OCIO will improve effectiveness and identify efficiencies to better support operational requirements. NOAA IT consists of multiple fragmented IT systems that create independent services. The CIO Community will find "common solutions" to "common problems" that are encountered across this IT enterprise. Improvements across the IT enterprise involve the creation of an enterprise-wide strategy that identifies and implements common NOAA-wide solutions; development and enforcement of standards which IT managers can use to successfully integrate into NOAA infrastructure; and development and implementation of common solutions with existing infrastructure to find efficiencies and reduce unnecessary duplications. As NOAA's services evolve, it must leverage opportunities for procurement consolidations, share common infrastructure across Line Offices, and coordinate management of cross-agency infrastructure to maximize use of limited resources. This effort will lead to more effective IT infrastructure to support NOAA's mission.

NOAA IT Management Functions

In addition to Strategic IT Planning, NOAA performs a number of other IT Management functions including Capital Planning and Enterprise Architecture, which form the Business Model for managing IT. Explanations of these functions may be found under the Policy and Programs section of the NOAA CIO Website (www.cio.noaa.gov).

Structure of NOAA's Strategic IT Plan

The main body of this plan is organized by NOAA's Mission Goals, as identified in NOAA's Strategic Plan. Using the NOAA Strategic Plan 2006-2011, the NOAA Annual Guidance Memorandum 2010-2014, and the OMB Exhibit 53 provides the framework to:

- Review and evaluate NOAA's IT spending; see Appendix 3 for the NOAA BY09 Exhibit 53.
- Determine the net program performance benefits resulting from major capital investments in information systems and how those benefits relate to the accomplishment of the Goals.

The alignment of this document with the NOAA Strategic Plan will promote traceability and accountability for NOAA's IT program, from strategic planning through performance management. Each Mission Goal is further organized by: mission goal description; mission goal objectives; IT objectives; IT architecture gap and target statement; and initiatives. Only forward-looking strategies – new development, enhancements, and modernization initiatives (DME) from current NOAA IT Exhibit 300s – are included. Ongoing "steady state" (SS) or maintenance activities are not included in this Strategic IT Plan.

Appendix 1, IT Governance, visually depicts the SITP, IT, and PPBES processes at NOAA. Appendix 2 shows Exhibit 300s associated with PPBES Teams. And Appendix 3 is the BY09 Exhibit 53.

NOAA IT by Mission Goal

This section presents the IT strategy for NOAA Mission Goals that are in the NOAA Exhibit 53 Part 1, in the order of Goals from the NOAA IT Strategic Plan 2006-2011. The Goals are: Ecosystems; Climate; Weather and Water; and Commerce and Transportation; and Mission Support.

1. Ecosystems Mission Goal

Mission Goal Description

To conserve, protect, manage, and restore living marine, coastal, and ocean resources.

Mission Goal Objectives

- Increase number of fish stocks managed at sustainable levels.
- Increase number of protected species that reach stable or increasing population levels.
- Increase number of invasive species populations eradicated, contained, or mitigated.
- Increase number of habitat acres conserved or restored.
- Increase environmentally sound aquaculture production.

IT Strategic Objectives

- Gain efficiencies by applying economies of scale and national consolidation to regional operations.
- Ensure interoperability and seamless transmission of Ecosystem Observation Program (EOP) data through adoption of DMAC standards and protocols.
- Harmonize fisheries data and permitting systems to facilitate reporting and ease the burden for permit applicants.

IT Architecture Gap and Target Statement

See the Mission Support Goal, Modernize IT Infrastructure, IT Architecture Gap and Target Statement.

Major Initiatives

The following activities are NOAA's IT investments or planned investments that will meet the objectives identified above.

FIS – Integrate state and federal information collection systems to enhance ecosystems-based marine fisheries through improved data quality and management.

Permits – Implement a single consolidated records system for fishing permits.

Northeast Fisheries information Management System (NE-FIMS) – Develop an integrated fisheries dependent management system for the NMFS Northeast Region.

2. Climate Mission Goal

Mission Goal Description

To deliver reliable climate information and predictions in time scales of up to decades and longer to help minimize risks and maximize opportunities for decisions in agriculture, natural resources, water and energy usage, public policy, and public health.

Mission Goal Objectives

- Describe and understand the state of the climate system through integrated observations, analysis, and data stewardship.

- Improve climate predictive capability from weeks to decades, with an increase range of applicability for management and policy decisions.
- Improve the quality and quantity of climate observations, analyses, interpretation, and archiving by maintaining a consistent climate record and by improving our ability to determine why changes are taking place.

IT Strategic Objectives

- Support the scientific life cycle to help bring research and development initiatives to operational applications.
- Modernize central processing capabilities.
- Develop new modeling products for forecast and climate predictions.
- Increase capability to ingest, control, and access of high volumes (petabytes) of environmental data.
- Support for stand-up of a National Climate Service. NOAA will create a National Climate Service during the FY10 -14 period. The National Climate Service would be responsible for the following:
    - Scientific Data Stewardship -Climate Data Records (CDRs)
    - Data and Archive
    - Model CDRs
    - US Historical Climate Network
    - Decadal Climate Predictions
    - GOOS
    - Expand Regional Integrated Sciences and Assessments
- IT Support for FY10 Programs include:
    - IT Support for the National Climate Service would support the Climate Mission Goal Projects.
        - For Infrastructure:
            - Revitalize Climate Computing
            - Integrated Ensemble Approach to Observations
            - Accelerate US Historical Climate Network Modernization
            - Oceanic & Atmospheric Research Facilities
            - Carbon Tracker Observing System
        - For Monitoring, Research, and Development Support:
            - Scientific Data Stewardship -Climate Data Records
        - For Ecosystems Goals, climate impacts research and decision support projects:

IT Architecture Gap and Target Statement

NOAA has a significant and critical role in the stewardship of environmental data. However, NOAA currently lacks the ability to integrate data from various observing systems and provide climate-related data with adequate information about the how the data was transformed from a specific measurement to data records delivered to the user. A wide variety of data such as open ocean data, atmospheric data, socio-economic data, coastal geology, ocean bathymetry, sea level, land glacier melt, river runoff, etc. is required by multiple disciplines within NOAA. Although NOAA's capacity to provide the linked information linked information required by our users is currently limited, efforts such as GEO-IDE, EDSM, and CDMP are making progress toward closing the gap. CLASS is also being positioned as scaleable archive for the expected logarithmic increase in the quantity of observation data from new observing platforms over the coming decade. These efforts will better prepare the Nation to mitigate the effects of climate and weather extremes that are amplified by changes in population and societal trends in a changing climate.

Major Initiatives

The following activities are NOAA's IT investments or planned investments that will meet all of the IT objectives identified above.

Comprehensive Large Array-data Stewardship System (CLASS) – Develop a web-based data storage and distribution system for high volumes (petabytes) of archived environmental data derived from the following

satellites and observing systems: GOES, POES DMSP, MetOp, EOS/MODIS, NPP, NPOESS, NEXRAD, USCRN, COOP/NERON, oceanographic sensors and buoys, and solar environmental data.

Global Earth Observation Integrated Data Environment (GEO IDE) – Establish a Services Oriented Architecture (SAO) for NOAA data management systems, providing common services, and leveraging the benefits of existing data management systems.

Historical Climatology Network (HCN) modernization is a major climate initiative – Develop a modern network of 1,000 stations nationwide, collecting accurate, near real-time surface weather data obtained with state-of-the-art measurement, monitoring and communication equipment to replace existing HCN sites.

National Integrated Drought Information System (NIDIS) – Provide drought information through web-based portal that organizes and delivers historical and real-time climate and weather information for researchers and emergency responders.

NOAA Research Scientific Computing Support – Provides periodic technical refreshment of IT computing resources and associated IT maintenance and support services used to conduct short, mid, and long term climate and weather research.

3. Weather and Water Mission Goal

Mission Goal Description

To produce timely and accurate environmental observations, analyses, predictions and warnings for a range of atmospheric and hydrologic conditions including hurricanes, tornadoes, flood, droughts, tsunamis, wildfires, air quality, and space weather.

Mission Goal Objectives

- Increase lead time and accuracy for warnings and forecasts.
- Improve predictability of the onset, duration and impact of hazardous and severe events.
- Increase development, application, and transition of advanced science and technology to operations.

IT Strategic Objectives

- Increase capability and performance of key observing systems.
- Modernize central processing capabilities.
- Modernize information dissemination capabilities.
- Develop new modeling/forecast products.

IT Architecture Gap and Target Statement

New observing system capabilities (e.g., NEXRAD dual-polarization capability, NPOESS Preparatory Project (NPP) and National Polar-Orbiting Environmental Satellite System (NPOESS)) will produce an exponential increase in the volume and velocity of data needed to make increasingly accurate and timely warnings, forecasts and environmental predictions. The new modeling/forecast products that will be derived from these data require significant new processing capabilities, and especially greater High Performance Computing (HPC) capacity. Likewise, the massive increases in data throughput will directly impact NOAA's telecommunications infrastructure and information dissemination capacity, both within NOAA and to external customers. Current IT capabilities and supporting infrastructure were designed for earlier generations of observing and product production requirements, and do not scale to meet the new requirements. Modernization of NOAA's computational capacity and significant enhancement to the supporting infrastructure are needed to enable the production and efficient dissemination of the new modeling and forecast products needed to satisfy current mission goals. Specific examples of IT gaps and targets include:

- The need for new HPC capacity to produce operational air quality forecasts nationwide (e.g., current capacity for ozone forecasting is limited and only partially deployed, and there is no capability to produce particulate matter forecasts).
- Environmental modeling requirements are driving the need for new IT subsystems to leverage new sensors being implemented at domestic aviation facilities as a replacement for manual observation techniques.
- Integrated observations require a level of interoperability in NOAA's climate, weather, ocean, water and ecosystems models, and a concomitant integration of the IT architecture that supports these models. The current IT architecture is not adequately integrated, and there is no common design architecture or integration roadmap to accomplish this. Integrated observations also require improved data management to enable sharing of observational data across disciplines.
- The current infrastructure to transmit the tsunami warning is inadequate.
- The current telecommunications infrastructure is inadequate to handle the significant increase in the volume of data from NEXRAD and the new generations of satellite observing systems, and will require re-architecting of the infrastructure and significant investments in new capacity.
- The information security posture of existing programs (e.g., National Centers for Environmental Prediction) requires enhancement and continued investments, consistent with existing and emerging threats.

Increased processing capabilities, infrastructure capacity and network bandwidth will allow for not only improved products, but also for their more efficient distribution. Additionally, development of a common architecture and integration roadmap will result in a more interoperable, robust and agile computing environment for warning, forecasts and predictions.

Major Initiatives

The following initiatives are NOAA's IT investments or planned investments that will meet the IT objectives identified above.

- Increase capability and performance of key observing systems.

Next Generation Weather Radar (NEXRAD) – Acquire modern hardware advancements in radar meteorology and information technology to improve the performance of the nation's Doppler weather radar network. NEXRAD acquires observation information about tornadoes and severe thunderstorms. The Dual Polarization modification will improve the ability to estimate precipitation amounts, detect size and location of hail and snow, and discriminate between weather and non-weather phenomena.

Office of Hydrologic Development (OHD) – Acquire advanced hardware and software to increase capabilities for nationwide water resource forecasting, enhanced short-term predictions of river levels and longer-term forecasts.

NOAA Environmental Real-time Observations Network (NERON) – Develop a modern network of 8,000 stations nationwide collecting accurate, near real-time surface weather data obtained with state-of-the-art measurement, monitoring, and communication equipment.

Tsunami – Upgrade telecommunications bandwidth, operational hardware, and related software for the development of improved Tsunami forecasting and modeling capabilities.

NPOESS Data Exploitation (NDE) – Provide the essential data processing and distribution systems including high speed computers, telecommunications, and automated procedures to deliver enhanced environmental observations to operational weather forecasters, government and international scientists, private enterprises, and university researchers from the NPP and NPOESS Satellites.

Automated Surface Observing System (ASOS) – Replace vintage 1980 architecture with state of the art data collection, processor, software, and network communications components for the nation's primary surface

weather observing platform, which observes and collects basic weather elements (visibility, precipitation, temperature, wind etc.) at over 1000 locations including nearly 600 airports.

- Modernize central processing capabilities.

Advanced Weather Interactive Processing System (AWIPS) – Develop a modern technology platform and a continuous technology refresh cycle for NOAA's distributed data processing system used at NWS field offices, regional offices, and headquarters that integrates all meteorological, hydrologic, satellite, and weather radar data received from all other observational and analytical elements that enables the forecaster to prepare and issue more accurate and timely forecasts and warnings.

Telecommunications Gateway (NWSTG) System – Modernize the hardware, software, and telecommunications infrastructure, and provide a critical infrastructure protection backup for the NOAA central switching system that provides continuous acquisition and dissemination of domestic and foreign meteorological and hydrological data and products between providers and users.

NOAA Weather Radio Improvement Program (WRIP) –Replace the Console Replacement System, consolidate the NWR and NOAA Weather Wire Service (NWWS) in a single satellite network, and provide access to NNWR transmitters for dissemination of live localized and national emergency voice alerts.

- Develop new modeling/forecast products.

Air Quality Forecast Capability (AQF) – Develop the computational capability to provide 12km Ozone and Particulate Matter forecasts.

Fire Weather Services and Modeling – Develop the hardware, software, and telecommunications resources to provide live data to meteorologists during fire events. Develop the computation capability to produce a coupled fire spread mode to 1km spatial resolution.

4. Commerce and Transportation Mission Goal

Mission Description

To provide information, services, and products for transportation safety and for increased commerce on roads, rails, airways and waterways; provide marine, aviation, and surface weather forecasts, navigational charts, positioning information that is critical for air, sea, and surface transportation; response to hazardous material spills; provide search and rescue to save lives; and provide information for port and coastal operations.

Mission Goal Objectives

- Enhance navigational safety and efficiency by improving information products and services.
- Realize national economic, safety, and environmental benefits of improved, accurate positioning capabilities.
- Reduce weather-related transportation crashes and delays.
- Reduce human risk, environmental, and economic consequences resulting from natural or human-induced emergencies.

IT Strategic Objectives

- Transition aviation weather program products and services from a primarily text based model to a digital environment with machine-to-machine interface capabilities.
- Enhance capacity of the IT infrastructure to accommodate anticipated increases in the volume of data from observations, particularly in real-time.
- Transition nautical chart production from "dumb" raster data representation into more usable vector data.
- Merge the two separate production components of the Nautical Charting System into a single production system from which multiple products can be derived.

- Eliminate the single point of failure regarding the real-time provision of oceanographic and meteorological observations for safe maritime navigation and Homeland Security applications.

IT Architecture Gap and Target Statement

The Commerce and Transportation goal presents a number of IT challenges and opportunities. For example, the PORTS and NWLON programs have become tightly coupled, and integration of the IT systems is needed to support environmental stewardship and environmental assessment and prediction. The objectives of this integration initiative include: modernization and consolidation of the metadata within the two programs; institutionalization of a 24x7 data quality control system; continuation of partnerships with private industry and the national port and harbor infrastructure to deploy and operate additional PORTS; and improved real-time capabilities. These efforts will result in benefits to community preparedness and response during severe weather events, protect lives and property, and minimize impacts on sensitive habitats. Another example is NOAA's current limited ability to conduct the aviation weather program in a digital environment. Legacy NOAA products and services in this arena are primarily text-based, but our stakeholders are using decision making tools that leverage automated graphical capabilities, which is driving a requirement to perform machine-to-machine communication with dynamic displays. A final example is NOAA's ability to provide adequate data stewardship for the growing volumes of hydrographic survey and other environmental data archived and managed by the National Geophysical Data Center. Closing this gap though the CLASS investment will enable NOAA to fulfill its responsibilities to the U.S. marine transportation system with adequate and accurate products and services to aid safe movement on our waterways.

Major Initiatives

Hydrographic Data Management and Communications Upgrade (Hydro DMAC) – Use Commercial Off the Shelf (COTS) hardware and software to provide the infrastructure to transfer and store hydrographic survey data.

5. Mission Support Goal

In this section Strategic goals for IT infrastructure are discussed. IT infrastructure is defined as all common and enterprise level functions and systems that support mission activities and are not directly used for most mission programs named in Part 1. It includes: IT Security, networks, end-user workstations, office automation hardware and software, help desks, financial and administrative systems. In accordance the NOAA Strategic Plan: NOAA will ensure state-of the-art IT infrastructure and secure information technology and systems with the objective of increasing internal and external availability, reliability, security, and the use of information technology and services

This section presents the IT strategy for NOAA Mission Support that is funded in the NOAA Exhibit 53 Part 1, including the Satellite Systems Mission Support Sub-Goal, and, as specified per OMB Circular A-11, the programs for Financial Management and e-Gov.

5.1. Modeling and Observing Infrastructure Sub-Goal

Mission Sub-Goal Description

The Modeling and Observing Infrastructure sub-goal contributes to major desired outcomes identified in the NOAA Strategic Plan, including:

- A predictive understanding of the global climate system on time scales of weeks to decades with quantified uncertainties sufficient for making informed and reasoned decisions
- Better, quicker, and more valuable weather and water information to support improved decisions
- Secure, reliable, and robust information flows within NOAA and out to the public

Mission Sub-Goal Objectives

- Improved climate predictive capability from weeks to decades, with an increased range of applicability for management and policy decisions
- Increased lead time and accuracy for weather and water warnings and forecasts
- Improved predictability of the onset, duration, and impact of hazardous and severe weather and water events
- Enhanced navigational safety and efficiency through improved information products and services
- Increased internal and external availability, reliability, security, and use of NOAA information technology and services

IT Strategic Objectives

- Increase capability and performance of key observing systems.
- Modernize central processing capabilities.
- Develop ground systems for new/interim satellites.
- IT Support is needed for Hurricane Forecast Improvements:
    - Improvements to forecast models, computing capacity, product generation, near-realtime observations, testing and evaluation are al required to achieve required improvement.
    - Delivers R&D and transition to operations of high-resolution hurricane models; forecast tool creation to improve the 1-5 day hurricane guidance (intensity and track); storm surge model R&D and inundation mapping for coastal regions.
- IT Support for Observation, Data Management, and Modeling Systems
    - Observations integration and data management
    - Capable and reliable observations infrastructure
    - Ocean and earth system modeling

IT Architecture Gap and Target Statement

The Modeling and Observing System Infrastructure Sub Goal will also address the following objectives for Fiscal Years 2010 through 2014 as identified in the Annual Guidance Memorandum:

- Lead National and Regional IOOS implementation to develop a functional IOOS that serves internal and external user needs
- Expand external partnerships at national and international levels to integrate environmental observing, modeling, and prediction activities
- Develop strategic investment portfolio recommendations

Major Initiatives

The following activities are NOAA's IT investments or planned investments that will meet all of the IT objectives identified above.

Weather and Climate Operational Supercomputer Systems (NCEP) – Modernize information dissemination capabilities. Upgrade the computational capabilities necessary to execute the numerical models that form the basis of all routine weather and climate forecasts produced in the US.

- **NCEP Weather and Climate Operational Supercomputer Systems (WCOSS Primary and Backup)** – The NOAA NCEP Weather & Climate Supercomputer Systems (Primary and Backup) produce environmental forecasts and assimilate data used to execute the numerical models that form the basis for all routine weather and climate forecasts produced in the US.
- **NCEP Weather and Climate Computing Infrastructure Services (WCCIS)** – WCCIS provides support resources for (a) weather and climate forecasting capabilities and (b) operational model development for forecasts and warnings.

NOAA R&D High Performance Computing System – Provides high performance computing resources for weather and climate research in the development and use of sophisticated numerical models to predict and understand atmospheric and oceanic phenomena.

5.2. Satellite Services Sub-Sub-Goal within Modeling and Observing

Mission Sub-Goal Description

To deliver accurate, timely, and reliable satellite environmental observations and integrated products.

Mission Sub-Goal Objectives

- Increase lead time and accuracy for warnings and forecasts.
- Improve predictability of the onset, duration and impact of hazardous and severe events.

IT Strategic Objectives

- Increase capability and performance of key observing systems.
- Modernize central processing capabilities.
- Develop ground systems for new/interim satellites.
- Satellite planning and integration
    - GOES-R and Jason 3

IT Architecture Gap and Target Statement

New satellites and satellite series (NPP, NPOESS, GOES-R) require new advanced ground systems. The development of completely new ground systems for command and control, data ingest and processing, product generation is necessary for the new capabilities that will be provided by the new geostationary and polar orbiting satellites that will launch in the next five to ten years. The instruments that will be enabled on these new satellites will demand that their ground systems handle not only the increased downstream bandwidth but also increased granularity of the data being provided. The new NOAA Satellite Operations Facility (NSOF) in Suitland, Maryland will allow for the physical consolidation of the ground system command and control facilities for most of the investments in Satellite Services.

Major Initiatives

The following activities are NOAA's IT investments or planned investments that will meet all of the IT objectives identified above.

NPOESS Ground System – Develop the IT support for the ground segments to operate, monitor, control, and produce the environmental observation products for the Nation's civil and military polar-orbiting operational meteorological satellite system into a single national entity capable of satisfying both civil and national security requirements for space-based remotely sensed environmental data.

GOES-R Ground System – Develop the ground segments to operate, monitor, control, and produce the environmental products for NOAA's next generation of civilian geostationary satellites.

GOES Ground System – GOES ground system monitors and controls NOAA's Geostationary environmental satellites.

POES Ground System – The POES ground system monitors and controls NOAA's polar-orbiting operational environmental satellites. IT hardware/software upgrades are underway for future satellites.

Satellite Operations Control Center Command and Data Acquisition (SOCC/CDA) – This investment is used by the Office of Satellite Operations (OSO) to command and control the POES and GOES satellites, to track the satellites, and to acquire their data.

Environmental Satellite Processing Center (ESPC) – This investment is for the consolidation of two environmental processing systems (for Polar and GOES satellite data) into one central processing system for environmental satellite data: the Environmental Satellite Processing Center (ESPC).

5.3. Operate the Financial Management and Administrative Systems

IT Goal Description

To provide central computer operations and management for NOAA's administrative and financial systems.

IT Goal Objectives

Improve the efficiency and performance of financial, administrative, workforce management, and acquisition transactions and services.

IT Strategic Objectives

- Invest in IT to improve processing of financial, administrative, workforce, management and acquisition services.
- Consolidate the Commerce Business System (CBS) to Census.
- Provide the system components for the Management and Reporting Systems (MARS).
- Support the development of the End-to-End (E2E) system.

IT Architecture Gap and Target Statement

Improve the server topology to allow for server consolidation, allowing for better integration and improved performance. CBS and MARS support the CFO Act to produce accurate and timely financial reports.

Major Initiatives

Commerce Business System (CBS) – Consolidate CBS at the Census Bureau Bowie Data Center.

Management and Reporting Systems (MARS) – Provide the front end to CBS for better reporting.

5.4. Align IT with the OMB Lines of Business and E-Gov initiatives

IT Goal Description

Expand E-Government by utilizing technology to improve how the Federal Government serves citizens, businesses and agencies.

IT Goal Objectives

NOAA will participate with other federal agencies to construct, transition to, and implement the Geospatial Line of Business. NOAA will be a provider of e-Government services for weather events, earth observing, environments and geospatial data. Within NOAA, support program collaboration for geospatial initiatives, regional ecosystem responses, and incident responses.

IT Strategic Objectives

- Leverage the existing Geographic Information Systems (GIS) Committee, under the CIO Council, to support the NOAA implementation of the federal framework for the GeoSpatial Line of Business (LOB).
- Work with government-wide geospatial standards and architecture through participation in the Geospatial LOB and the national geospatial data infrastructure.
- Create composite geospatial data products that span NOAA Line and Program office missions.
- Remove the physical barriers to geospatial data access within NOAA.

- Promote interoperability and collaboration within NOAA via eGov.

IT Architecture Gap and Target Statement

The Federal Government continues to improve services and deliver results through the adoption and implementation of the President's E-Government (E-Gov) initiatives and government wide solutions. The United States Government is one of the largest users and acquirers of data, information and supporting technology systems in the world, by investing approximately $65 billion annually on Information Technology (IT). The Federal Government has made improvements but continues to strive to be the world's leader in managing technology and information to achieve the greatest gains of productivity, service and results. For the past five years, the President's Management Agenda (PMA) initiative to Expand E-Government has delivered significant results to the taxpayer and federal employees alike. The departments and agencies are determined to build upon past success and continue to apply the principles and complete implementation of government wide solutions to achieve greater savings, better results and improved customer service levels.

Major Initiatives

The following activities are NOAA's IT investments or planned investments that will meet all of the IT objectives identified above.

E-Rulemaking – Deploy the Federal Docket Management System throughout NOAA Fisheries in direct support of the President's Management Agenda E-Rulemaking initiative.

E-Gov – NOAA will fully align with the 24 national E-Gov initiatives. Specifically, NOAA has a role in the following initiatives: 1) Recreation One-Stop, 2) E-Rulemaking, 3) Geo-Spatial One-Stop, 4) Disaster Management, 5) Grants.gov.

Geospatial Line of Business – NOAA staff will be active participants in the Geospatial Line of Business by actively attending Geo LOB Task Force meetings, supporting the development of the Quantitative and Qualitative Geospatial Investments Data Call templates, responding to Quantitative Geospatial Data Calls, supporting development of A-16 report templates, reviewing the Geospatial Coordination FACA Charter, reviewing and commenting on outputs from Joint Business Case and Performance Management Working Group, reviewing plans for the formulation of the Geo LoB Program Management Office.

5.5. Ensure IT Security

IT Goal Description

Implements policies, standards, and procedures for NOAA IT systems which are consistent with government-wide laws and regulations and information assurance standards to adequately protect NOAA's information systems, whether maintained in-house or commercially, and prevent any unplanned disruptions of processing which would seriously impact NOAA's mission.

IT Goal Objectives

To protect NOAA from information system intrusions, and prevent compromises that put NOAA at risk for any disruption of operations or unauthorized access to information resources.

IT Strategic Objectives

- Achieve and maintain Certification and Accreditation (C&A) for all NOAA IT systems.
- Full compliance with the Federal Information Security Management Act (FISMA) and National Institute of Standards and Technology (NIST) Guidance Special Publication 800-53A.
- Employ an affordable and repeatable certification and accreditation process.
- Employ a centralized and standardized certification and accreditation process.
- Integrate the use of standard security controls, verification techniques and procedures.
- Develop evidence to support informed, risk-based accreditation decisions by senior agency officials.

- Develop or enhance appropriate technical, personnel, administrative, physical, environmental, and telecommunications safeguards in IT systems.
- Develop or enhance an enterprise-level robust Patch Management process and system.
- Established and maintain an incident response and intrusion capability.
- Deploy regional Intrusion Detection Systems (IDS).
- Encrypt Laptops and other portable devices.
- Secure Personally Identifiable Information (PII).
- Fund IT Security at 10% of systems life cycle costs.
- Implement Homeland Security Presidential Directive (HSPD) -12.

IT Architecture Gap and Target Statement

A number of critical issues remain in the execution of a sound IT security program within NOAA. These issues include: 1) Certification and Accreditation of all systems, 2) the development of a standardized and uniform process for conducting C&As, 3) producing quality C&As that achieves DOC IG verification of the C&A process, 4) inadequate funding for IT security in all systems and projects, 5) Implementation of the new National Institute of Standards and Technology (NIST) Guidance Special Publication 800-53A. The targets for this goal are to provide full capability of securing and documenting the security of NOAA systems, formulate and enforce IT security policy, timely responding to security incidents, and develop processes which ensure consistent application of security controls. Achieving the target architecture will result in a more consistent, reliable, and secure IT environment for NOAA systems.

Major Initiatives

Laptop encryption/PII – Implement DOC policy on laptop security, and encrypt all laptops and PDAs to be compliant with FIPS-140-2 level of encryption, completed June 1, 2007 and maintained ongoing.

C&A Schedule – Re-certify and update C&As on all NOAA systems within required time constraints.

Certification & Accreditation (C&A) Process – Develop a standardized and automated C&A model, and business process.

Standard Configurations - Create standard configurations for desktops, laptops, servers, and routers.

N-CIRT – Establish Computer Incident Response Teams at Boulder and Seattle.

Spam and virus protection – Implement comprehensive spam and virus prevention at the Messaging Operations Center.

5.6. Modernize IT Infrastructure

IT Goal Description

To manage NOAA's IT infrastructure including wide and local area networks, messaging systems, collaboration tools, telephony, workstations, help desks, enterprise COTS software, and administrative applications.

IT Goal Objectives

- To develop a new enterprise infrastructure under a "One-NOAA" approach that provides for common solutions across all Line Offices.
- To consolidate, integrate, and reduce the total cost of operations for NOAA's existing IT infrastructure.

IT Strategic Objectives

- Eliminate “Single Points of Failure”.
- Establish a One-NOAA Web Presence.
- Consolidate Web servers.
- Establish a single NOAA Wide Area Network (NOAAnet).
- Consolidate messaging.
- Implement a NOAA pilot & test proof-of-concept for IPv6, working in collaboration with DOC.
- Expand enterprise software licensing.
- Deploy a single SSMC Telephone System to upgrade from legacy systems.
- Establish a single IT Services Contract.
- Modernize the staff directory.
- Identify a single collaboration software suite.
- Strategic use of information technology

IT Architecture Gap and Target Statement

Historically IT infrastructure has evolved independently among the LOs. For example, each LO has independently developed and manages wide area networks, phone systems, local area networks, and help desks at major NOAA locations. There are, however, some enterprise level successes. These include a Washington DC area Metropolitan Area Network, enterprise email based upon the Sun One and Mozilla, and Oracle calendaring. These successes not withstanding, NOAA has a long way to go before it can be declared to have an enterprise level IT infrastructure. Committed management and technical action must be taken on a number of fronts including, Wide Area Networks, Web management, and collaboration software.

Major Initiatives

Consolidate Web Servers – Continue to physically consolidate web servers at the Web Operations Center (WOC).

Directory Integration – Integrate the e-mail director, NOAA Locator, and organization table.

Enterprise licensing – Support the federal government-wide approach for enterprise licenses on common software, known as Smart Buy in the areas of Office Automation; Network Management; Antivirus; Database; Business Modeling Tools; and Open Source software support. Develop enterprise license agreements for widely used software.

Messaging – Migrate to the DOC Microsoft based messaging standard.

NOAAnet – Develop a single integrated Wide Area Network that will move NOAA from a collection of twelve legacy networks, to a consolidated network architecture that connects major NOAA locations and functions at single logical points.

One NOAA Web Presence – Project a One-NOAA branding on all public accessible web pages to convey the message that all mission goals, programs, organizations, functions, and capabilities are produced and delivered as One-NOAA.

Standard Desktop Configuration – Implement standard a desktop configuration for Windows XP and VISTA in order to provide a baseline level of security, reduce risk from security threats and vulnerabilities, to improve system performance, decrease operating costs, and ensure public confidence in the confidentiality, integrity, and availability of government information.

Strategic Sourcing Support Services – Implement a strategic sourcing contract for IT support services in the areas of network management, messaging, collaborative tools, web services, IT security, infrastructure support, desktop and server management, and applications development and management.

Telephony – Rationalize **t**elephone systems at all NOAA campuses and major locations at the enterprise level.

5.7. Establish Enterprise Architecture and Planning

The NOAA Enterprise Architecture (EA) serves as a strategic roadmap for transitioning legacy IT investments to the future, based on the evolving mission needs and priorities. The EA provides a holistic and integrated view of NOAA, including business processes (e.g., the NOAA Functional Model), performance expectations, the IT services and applications required to support the processes and enable better performance, the data/information required, and the technical standards and specifications needed to achieve enterprise IT goals. The EA includes a description of the current (legacy) environment, the target environment needed to support NOAA's strategic business direction and priorities, and the transition/sequencing plan for moving to the target IT environment. In keeping with PPBES, the EA is organized by NOAA's mission goals.

IT Goal Description

The Enterprise Architecture is a management practice to maximize the contribution of NOAA's resources to achieve its mission. The EA establishes a clear line-of-sight from business requirements to IT investments to measurable performance improvements for the entire NOAA enterprise.

IT Goal Objectives

- Ensure that IT security requirements are fully integrated with the NOAA EA and governance process.
- Simplify and unify NOAA's IT architecture across all Line Offices, mission areas and programs.
- Inform and guide PPBES decisions with IT implications through architecturally based analysis of alternatives to close program gaps.
- Provide vetted IT target architecture to guide and inform NITRB investment decisions, and serve as a vehicle for CIO monitoring and enforcement of agreed-to transition plans.
- Provide specific and actionable guidance to program managers for IT components (e.g., standards for interoperability).

IT Strategic Objectives

- Develop framework and process for incorporating IT security requirements into the NOAA EA
- Establish EA life-cycle, governance model and repeatable maintenance process.
- Integrate the EA with PPBES and CPIC.
- Identify and vet business principles to drive the EA.
- Identify and promote opportunities to consolidate IT architecture components (e.g., applications, services, etc.) for shared business requirements across NOAA.
- Assess the alignment of NOAA's IT resources with agency mission goals and objectives, and develop transition strategies to close gaps where needed.
- Identify and foster enterprise-wide adoption of open standards to enable system interoperability and data sharing across applications and functional disciplines (TRM and Data Architecture).

IT Architecture Gap and Target Statement

The NOAA EA satisfies external stakeholder (OMB and DOC) technical expectations, but is generally recognized as a somewhat academic exercise with marginal return on value within NOAA. The intent is to transform it into a practical, relevant and value added tool to guide CIO and corporate decisions regarding NOAA's IT future. This transformation will begin with an initiative to integrate the NOAA security architecture into the EA, leveraging the resources and urgency of need associated with IT security. Subsequent efforts will focus on usage of the EA to consolidate resources (e.g. infrastructure) wherever possible, and on integrating applications and data across programs and Line Offices. Currently, the NOAA EA is not approved by NOAA goal team leads, although this level of vetting is essential to achieve the buy-in needed to implement the target architecture. Education, outreach and a concerted and focused campaign to sell the NOAA EA to goal team leads and other strategically placed stakeholders is needed to close this gap. Apart from the NOSA segment architecture (a subset and extension of the NOAA EA), the EA is not structured in a manner that enables meaningful or efficient analysis of the significant amounts of empirical information contained within the NOAA EA document. This is a significant gap which limits the potential and is showstopper barrier to

achieving the long-term goals of EA. In concert with DoC, NOAA is currently considering alternatives for closing this gap, with a roll-out and expansion of the CasaNOSA repository and NOSA architecture methodology as a viable option.

Major Initiatives

Security Integration – Integrate IT security into the NOAA EA, including Homeland Security Presidential Directive (HSPD) -12.

EA Processes – Document the EA lifecycle, maintenance process and governance model. Integrate the EA with PPBES and CPIC. Specify EA tool requirements (repository and analytical capabilities) and acquire, implement and maintain a solution. Develop and execute an EA communications, education and outreach strategy and plan.

Data Management – Evolve and mature the NOAA data architecture through partnerships with the DMIT and DMC.

Technical Reference Model (TRM) – Establish and publish a NOAA TRM.

Segment Architecture – Define, develop and maintain the Segment Architectures beyond the NOAA Observing Systems Architecture (NOSA).

5.8. Meet NOAA and federal-wide objectives of Grants Management

The Grants Management Division (GMD) supports NOAA's mission by reviewing solicitations for applications, processing applications, negotiating awards, managing administrative and financial aspects of awards, monitoring progress against expenditures, resolving audit problems, and closing out awards when the projects are completed.

IT Goal Description

To provide a fast coherent, flexible and robust application in support of the evaluation, award, and long-term management and operations of the NOAA grant making function.

IT Goal Objectives

- Develop grants management data standards based on DOC's Interim Grants Manual.
- Generate corporate standard business processes which contribute to a more efficient and effective use of government-wide grants management resources.
- Provide improved customer access and communications by establishing direct lines of accountability with program managers, grant administrative staff and external customers.

IT Strategic Objectives

Provide a single unified grant processing and administration system, using an electronic solution that will reduce processing time and increase efficiency.

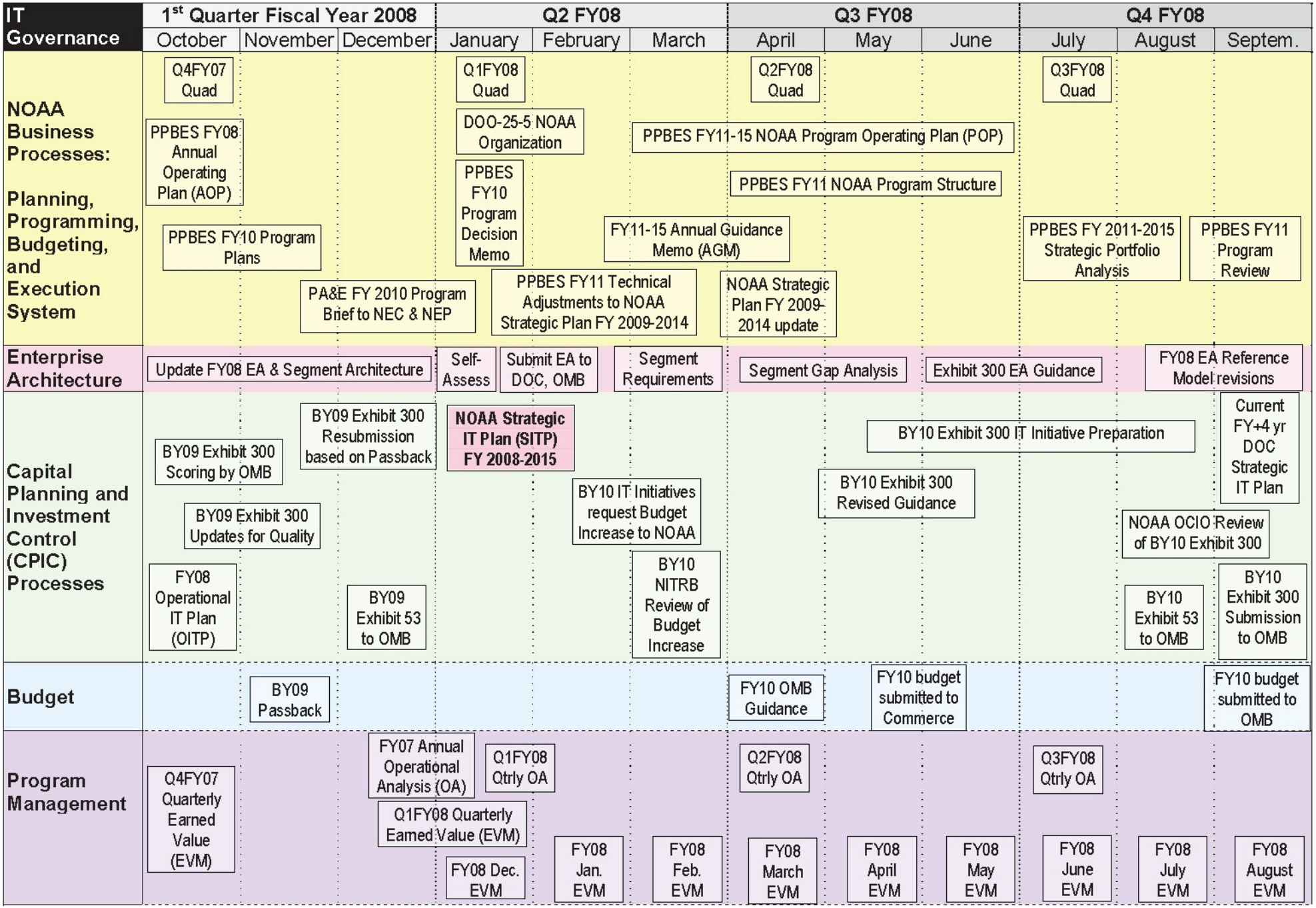
IT Architecture Gap and Target Statement

The NOAA Grants Online (GOL) system provides a scalable and robust system for handling all aspects of the grant process, from researching and applying for grants, to reporting on progress, to their closure. GOL receives and parses direct downloads hourly from the www.grants.gov citizen interface.

Major Initiatives

None.

Appendix 1. NOAA IT Governance Processes



Appendix 2. List of Exhibit 300s by PPBES Goal and Program

NOAA IT Planning - Exhibits 300 by PPBES Program v11d 1.28.08.xls

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
NOAA/NMFS/ Vessel Monitoring System	Jonathan Pinkerton	Mark Spurrier	NMFS	Larry Tyminski Joanne Sechrest	n/a	Ecosystem	Steve Murawski Kristen Koch	Enforcement	Dale Jones	100
NOAA/NMFS/ Fisheries Information System	Tina Chang	John Boreman	NMFS	Larry Tyminski Joanne Sechrest	n/a	Ecosystem	Steve Murawski Kristen Koch	Ecosystem Observations	John Boreman	100
NOAA/NMFS/ Permits	Susan Molina	John Boreman	NMFS	Larry Tyminski Joanne Sechrest	n/a	Ecosystem	Steve Murawski Kristen Koch	Ecosystem Observations	John Boreman	100
NOAA/NMFS/ Northeast Fisheries Information Management System (NE-FIMS)	John Witzig	Patricia Kurkul	NMFS	Larry Tyminski Joanne Sechrest	n/a	Ecosystem	Steve Murawski Kristen Koch	Ecosystem Observations	John Boreman	100
NOAA/NMFS/ Marine Recreational Information (MRI) Program	David Van Voorhees	John Boreman	NMFS	Larry Tyminski Joanne Sechrest	n/a	Ecosystem	Steve Murawski Kristen Koch	Ecosystem Observations	John Boreman	100
NOAA/OAR/ NOAA Research Scientific Computing Support	Nancy Huang	Bobby Kelley Warren Keenan Nick Wilde Joan Brundage Robert Kohler Richard Artz Chris Cornwall John Sheldon John Fenton Kevin Kelleher Nancy	OAR	Nancy Huang Vince Garcia	n/a	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Forcing	A. R. Ravishankara	3.47
								Climate Observations & Analysis	Tom Karl	14.62
								Climate Predictions & Projections	Tom Delworth	12.00
					Adrian Gardner Brenda Taylor	Weather & Water	George Smith Ward Seguin	Science, Technology, and Infusion	Marty Ralph	46.69
								Air Quality	Jim Meagher	4.34
								Tsunami	David Green	2.29
					Joe Klimavicz Dennis	Modeling & Observing Infrastructure	Michael Tanner	Environmental Modeling	Fred Toepfer	8.82

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
		Soreide Rich Beeler			Morgan					
					Larry Tyminski Joanne Sechrest	Ecosystem	Steve Murawski Kristen Koch	Ecosystem Research	Leon Cammen	5.89
								Coral Reef Conservation	David Kennedy	0.37
								Ecosystem Observations	John Boreman	1.50
NOAA/NWS/ Advanced Weather Interactive Processing System (AWIPS)	Charles Piercy	Charles Piercy	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	TBD
								Science, Technology, and Infusion	Marty Ralph	TBD
NOAA/NWS/ Next Generation Weather Radar (NEXRAD) System Product Improvement	Greg Cate	Richard Vogt	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Science, Technology, and Infusion	Marty Ralph	100
NOAA/NWS/ NCEP Weather and Climate Operational Supercomputer Systems (WCOSS Primary and Backup)	Richard Hackenberg	Ben Kyger	NWS	Adrian Gardner Brenda Taylor	Joe Klimavicz Dennis Morgan	Modeling & Observing Infrastructure	Michael Tanner	Environmental Modeling	Fred Toepfer	100
NOAA/NWS/ NCEP Weather and Climate Computing Infrastructure Services (WCCIS)	Richard Hackenberg	John May James Laver Steve Lord Ben Kyger Thomas De Foor Joseph Schaefer William Proenza	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	TBD
					Hugh Johnson Christine McNerney	Commerce & Transportation	Steve Barnum Ashley Chappell	Aviation Weather	Kevin Johnston	TBD
								Surface Weather	Jim O'Sullivan	TBD
					Joe Klimavicz Dennis Morgan	Modeling & Observing Infrastructure	Michael Tanner	TBD	TBD	TBD
NOAA/NWS/ National Weather Service Telecommunication Gateway (NWSTG)	Fred Branski	Daniel Starosta	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
System (Legacy, Replacement, and CIP)										
NOAA/NWS/ National Air Quality Forecast Capability	Paula Davidson	Ben Kyger	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Air Quality	James Meagher	100
NOAA/NWS/ Next Generation Weather Radar (NEXRAD) Operations and Maintenance	John McNulty	Richard Vogt	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ NWS Office of Hydrologic Development (OHD)	Gary Carter	Lawrence Cedrone	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Hydrology	Gary Carter	100
NOAA/NWS/ COOP Historical Climate Network - Modernization (HCN-M)	Cheri Ward	Bruce Giza	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ NWS Dissemination Systems (NDS)	Craig Hodan	Craig Hodan	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ NDBC Ocean Observing System of Systems (NOOSS)	Paul Moersdorf Dan Henderson	Paul Moersdorf	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Coasts, Estuaries, & Oceans	Paul Scholz	TBD
								Tsunami	David Green	TBD
								Local Forecasts and Warnings	Aimee Devaris	TBD
					Nancy Huang Vince Garcia	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Observations & Analysis	Tom Karl	TBD
NOAA/NWS/ NWS Regions and Field	Thomas Schwein	Paul Whitmore Charles McCreery	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ NOAA Weather Radio (NWR)	Daria Webb	TBD	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith	Local Forecasts and Warnings	Aimee Devaris	TBD

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
All Hazards Weather Network (NAHWN) aka All Hazards Emergency Message Collection System (HazCollect)							Ward Seguin	Science, Technology, and Infusion	Marty Ralph	TBD
NOAA/NWS/ Automated Surface Observing System (ASOS)	Joe Facundo John Monte	John McNulty	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ Automated Surface Observing System (ASOS) Product Improvement	John Monte	TBD	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ Data Assimilation and Modeling	Steve Lord	TBD	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ NOAA Profiler Network	Al Wissman	TBD	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Local Forecasts and Warnings	Aimee Devaris	100
NOAA/NWS/ Weather Radio Improvement Project (WRIP)	Bobby Martinez	TBD	NWS	Adrian Gardner Brenda Taylor	n/a	Weather & Water	George Smith Ward Seguin	Science, Technology, & Infusion	Marty Ralph	100
NOAA/NWS/ Next Generation Air Transportation System (NGATS) [new E300 for FY11]	TBD	TBD	NWS	Adrian Gardner Brenda Taylor	Hugh Johnson Christine McNerney	Commerce & Transportation	Steve Barnum Ashley Chappell	Aviation Weather	Kevin Johnston	100
NOAA/NOS/ Nautical Charting System	Kathryn Ries	Kathryn Ries	NOS	Hugh Johnson Christine McNerney	n/a	Commerce & Transportation	Steve Barnum Ashley Chappell	Marine Transportation System	Richard Edwing	100
NOAA/NOS/ PORTS & NWLON	David MacFarland	Richard Edwing	NOS	Hugh Johnson Christine McNerney	n/a	Commerce & Transportation	Steve Barnum Ashley Chappell	Marine Transportation System	Richard Edwing	100
NOAA/NOS/ Geodetic Support System	Richard Snay	Douglas Brown	NOS	Hugh Johnson Christine McNerney	n/a	Commerce & Transportation	Steve Barnum Ashley	Geodesy	Dave Zilkoski	100

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
							Chappell			
NOAA/NESDIS/ GOES Ground System	Keith McKenzie	Kathy Kelly - NOAA5003 Joe Brust - NOAA5003	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Geostationary Satellite Acquisition	Tony Comberiate	100
NOAA/NESDIS/ GOES-R Series Ground Segment	Ronald Mahmot	TBD - NOAA5050	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Geostationary Satellite Acquisition	Tony Comberiate	100
NOAA/NESDIS/ POES Ground System	Kirk Liang	Joe Brust - NOAA5026 Kathy Kelly - NOAA5026	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Polar Satellite Acquisition	Michael Mignogno	100
NOAA/NESDIS/ Environmental Satellite Processing Center (ESPC)	Reginald Lawrence	Reginald Lawrence - NOAA5045 Michael Matson - NOAA5045	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Satellite Services	Kathy Kelly	TBD
								Polar Satellite Acquisition	Michael Mignogno	TBD
								Geostationary Satellite Acquisition	Tony Comberiate	TBD
NOAA/NESDIS/ Satellite Operations Control Center Command and Data Acquisition (SOCC/CDA)	Keith Amburgey	Kathy Kelly - NOAA5044 Van Crawford - NOAA5044	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Satellite Services	Kathy Kelly	100
NOAA/NESDIS/ NPOESS Ground System	James Valenti	Susan Mashiko - NOAA5042	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Polar Satellite Acquisition	Michael Mignogno	100

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NOAA/NESDIS/ NPOESS Data Exploitation (NDE)	James Silva	Reggie Lawrence	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Adrian Gardner Brenda Taylor	Weather & Water	George Smith Ward Seguin	Science, Technology, and Infusion	Marty Ralph	100
NOAA/NESDIS/ Comprehensive Large Array-data Stewardship System (CLASS)	Rick Vizbulis	Rick Vizbulis - NOAA5040	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Nancy Huang Vince Garcia	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Observations & Analysis	Tom Karl	100
NOAA/NESDIS/ NOAA National Data Centers (NNDC)	Kendra Tarver	Mark Smith Parmesh Dwevidi John Kinsfather Susan Starke - NOAA5009 NCDC NOAA5010 NODC NOAA5011 NGDC	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Nancy Huang Vince Garcia	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Observations & Analysis	Tom Karl	55
					Larry Tyminski Joanne Sechrest	Ecosystem	Steve Murawski Emily Menashes	Ecosystem Observations	John Boreman	30
					Adrian Gardner Brenda Taylor	Weather & Water	George Smith Ward Seguin	Space Weather	Tom Bogdan	4
					Joe Klimavicz Dennis Morgan	Leadership & Corporate Services	Bill Broglie Jim Carter	Line Office Headquarters	Mitchell Luxenberg	4
					Hugh Johnson Christine McNerney	Commerce & Transportation	Steve Barnum Ashley Chappell	Marine Transportation System NOAA Emergency Response	Richard Edwing Ken Barton	7
NOAA/NESDIS/ Search and Rescue Satellite-Aided Tracking (SARSAT)	Ajay Mehta	Ajay Mehta - NOAA5023	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Hugh Johnson Christine McNerney	Commerce & Transportation	Steve Barnum Ashley Chappell	NOAA Emergency Response	Ken Barton	100

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
NOAA/NESDIS/ National Integrated Drought Information System (NIDIS) Implementation	Tim Owen	Mark Smith David Urbanski	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Nancy Huang Vince Garcia	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Observations & Analysis	Tom Karl	100
NOAA/NESDIS/ Global Earth Observation Integrated Data Environment (GEO IDE) [internal E300]	Ken McDonald	TBD	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	Joe Klimavicz Dennis Morgan	Modeling & Observing Infrastructure	Michael Tanner	Technical Requirements, Planning and Integration	Michael Tanner	100
NOAA/NESDIS/ Office of Satellite Data Processing and Distribution (OSDPD) Systems Critical Infrastructure Protection (CIP)	Angelo Wade	Reginald Lawrence Michael Matson - NOAA5044 NOAA5045	NESDIS	Zach Goldstein Jamil Iftikhar Jim Goudouros Craig Maddron Michael Poss	n/a	Satellite	Michael Crison	Satellite Services	Kathy Kelly	TBD (Steady-State)
					Joe Klimavicz Dennis Morgan	Leadership & Corporate Services	Bill Broglie Jim Carter	Facilities	Bill Broglie	TBD (DME)
NOAA/OMAO/ NOAA Marine and Aviation Operations	Doug Perry	TBD	NMAO	Doug Perry Greg Bass	n/a	Fleet Services	Tajr Hull	Aircraft Services	Elizabeth White	TBD
								Aircraft Replacement	Tajr Hull	TBD
								Marine Operations & Maintenance	Elizabeth White	TBD
								Fleet Replacement	Tajr Hull	TBD
NOAA/OCIO/ Financial Management IT Operations	Joseph Smith III	Joseph Smith III	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Financial Services	Sherry Morrissette	100
NOAA/OCIO/ E2E (End-to-End Resource Management System) [internal E300]	Keith Markva	Joseph Smith III	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Financial Services	Sherry Morrissette	100
NOAA/OCIO/ NOAA Non-Core CBS Financial	Jackie Schreckengost	Ted Wolfgang Jon	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Financial Services	Sherry Morrissette	100

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
Management System (PCS)		Alexander								
NOAA/OCIO/ NOAA Grants On-line	Chris Suzich	John Villemarette Joseph Smith III	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Information Technology Services	Dennis Morgan	100
NOAA/OCIO/ NOAA R&D High Performance Computing System	William Turnbull	William Turnbull	OCIO	Joe Klimavicz Dennis Morgan	n/a	Modeling & Observing Infrastructure	Michael Tanner	Environmental Modeling	Fred Toepfer	TBD
					Nancy Huang Vince Garcia	Climate	Chet Koblinsky Margarita Gregg Adrienne Antoine	Climate Predictions & Projections	Tom Delworth	TBD
NOAA/OCIO/ IT Security [internal E300]	Domi Sanchez Diane Davidowicz	TBD	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Information Technology Services	Dennis Morgan	100
NOAA/OCIO/ NOAAnet [internal E300]	Bruce Webster Tom Sandman	TBD	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Information Technology Services	Dennis Morgan	100
NOAA/OCIO/ SSMC Telephony [internal E300]	Bruce Webster Cliff Schoenberger	TBD	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Information Technology Services	Dennis Morgan	100
NOAA/OCIO/ OneNOAA Web Presence [internal E300]	TBD	TBD	OCIO	Joe Klimavicz Dennis Morgan	n/a	Leadership & Corporate Services	Bill Broglie Jim Carter	Information Technology Services	Dennis Morgan	100
NOAA/NOAA/ IT Infrastructure	Robert Swisher	N/A	All LO/SOs	All LO/SO CIOs All IT Planning WG Members	n/a	All PPBES Goal/Sub-Goals	All PPBES Goal/Sub-Goal Leads & Coordinators	All PPBES Programs	All Program Managers	100

Exhibit 300 IT Investment Name	Exhibit 300 IT Project Manager	System Owner(s), NOAA System ID	Line or Staff Office	Primary NOAA CIO Council Reps	Second NOAA CIO Council Reps	PPBES Goal/Sub-Goal	Goal, Sub-Goal Lead & Deputy	PPBES Program(s)	Program Manager	% Cost Shared by Each Program
NOAA/NOAA Systems/ NOAA-Wide Enterprise IT Architecture	TBD	N/A	All LO/SOs	All LO/SO CIOs All IT Planning WG Members	n/a	All PPBES Goal/Sub-Goals	All PPBES Goal/Sub-Goal Leads & Coordinators	All PPBES Programs	All Program Managers	100
NOAA/NOAA Systems/ NOAA-Wide Enterprise IT Planning	TBD	N/A	All LO/SOs	All LO/SO CIOs All IT Planning WG Members	n/a	All PPBES Goal/Sub-Goals	All PPBES Goal/Sub-Goal Leads & Coordinators	All PPBES Programs	All Program Managers	100

Appendix 3. DOC-NOAA BY09 Exhibit 53, version January 7, 2008

NOAA Agency IT Investment Portfolio, 1/7/2008; $M

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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-00-00-00-00-0000-00	**Agency Total IT Investment Portfolio**											**424.966**	**494.006**	**869.979**	**1247.541**	**1295.022**	**1394.479**
006-00-01-00-00-0000-00	**Part 1. IT Systems by Mission Area**											**394.985**	**482.091**	**855.892**	**804.094**	**840.270**	**918.483**
006-00-01-01-00-0000-00	**Financial Management**											**8.318**	**11.816**	**14.011**	**93.395**	**93.242**	**96.993**
006-48-01-01-01-3801-00	NOAA/OCIO/ Financial Management IT Operations	This system provides the central computing services for NOAA financial and administrative activities.	402	125	20.0	15.0	50.0	10.0	2.0	0.000		2.400	0.600	2.400	5.977	5.630	5.730
006-48-01-01-01-3801-04	006-48-1450-0	NOAA: ORF										2.400	0.600	2.400	5.977	5.630	5.730
006-48-01-01-01-3801-09	Funding Source Subtotal											2.400	0.600	2.400	5.977	5.630	5.730
006-48-01-01-01-3803-00	NOAA/OCIO/ NOAA Non-Core CBS Financial Management System (PCS)	In addition to DOC CBS, NOAA uses its non-core CBS financial system module, Permanent Change Station (PCS) and Travel Manager in accordance with departmental guidelines.	753	623	0.0	0.0	100.0	3.0	0.0	0.017		0.000	0.000	0.000	0.875	0.937	0.999
006-48-01-01-01-3803-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	0.875	0.937	0.999
006-48-01-01-01-3803-09	Funding Source Subtotal											0.000	0.000	0.000	0.875	0.937	0.999
006-00-01-12-00-0000-00	**NOAA - Weather and Water**											**45.173**	**39.423**	**45.414**	**107.469**	**110.633**	**112.092**
006-48-01-12-01-3101-00	NOAA/NWS/ Advanced Weather Interactive Processing System (AWIPS)	AWIPS is a nationwide interactive computer and communications system that integrates all meteorological, hydrologic, satellite, and weather radar data to enable the forecaster to prepare and issue more accurate and timely forecasts and warnings.	108	023	0.0	0.0	0.0	7.0	12.0	0.019	5	12.764	12.764	12.764	37.603	37.766	38.065
006-48-01-12-01-3101-04	006-48-1460-0	NOAA: PAC										12.764	12.764	12.764	0.000	0.000	0.000
006-48-01-12-01-3101-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	37.603	37.766	38.065
006-48-01-12-01-3101-09	Funding Source Subtotal											12.764	12.764	12.764	37.603	37.766	38.065
006-48-01-12-01-3102-00	NOAA/NWS/ Next Generation Weather Radar (NEXRAD) System Product Improvement	The objectives of the NEXRAD Product Improvement (NPI) Program are to apply advancements in radar meteorology and information technology to improve the performance of the nation's weather radar network.	108	023	0.0	0.0	0.0	7.0	0.0	0.000		8.376	8.376	8.376	0.000	0.000	0.000
006-48-01-12-01-3102-04	006-48-1460-0	NOAA: PAC										8.376	8.376	8.376	0.000	0.000	0.000
006-48-01-12-01-3102-09	Funding Source Subtotal											8.376	8.376	8.376	0.000	0.000	0.000
006-48-01-12-01-3103-00	NOAA/NWS/ Next Generation Weather Radar (NEXRAD) Operations and Maintenance	NEXRAD is NWS prime observation system for acquiring information about tornados & severe thunderstorms. The Doppler weather radar system is a tri-agency program of DOC, DOT, & DOD.	108	023	0.0	0.0	0.0	8.0	0.0	0.000		0.000	0.000	0.000	8.654	8.654	8.654
006-48-01-12-01-3103-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	8.654	8.654	8.654
006-48-01-12-01-3103-09	Funding Source Subtotal											0.000	0.000	0.000	8.654	8.654	8.654
006-48-01-12-01-3106-00	NOAA/NWS/ National Weather Service Telecommunication Gateway (NWSTG) System (Legacy, Replacement, and CIP)	The NWS Telecommunication Gateway disseminates (message-switching services) weather observations and guidance data to a national and international community of customers. The Gateway services this customer base in a near-real-time operational environment.	302	095	0.0	0.0	0.0	6.9	2.0	0.015	4	0.000	0.000	0.000	20.961	21.058	21.058
006-48-01-12-01-3106-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	20.467	19.863	19.863
006-48-01-12-01-3106-04	006-48-1460-0	NOAA: PAC										0.000	0.000	0.000	0.494	1.195	1.195
006-48-01-12-01-3106-09	Funding Source Subtotal											0.000	0.000	0.000	20.961	21.058	21.058

NOAA Agency IT Investment Portfolio, 1/7/2008; $M
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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-12-01-3111-00	NOAA/NWS/ NOAA Weather Radio (NWR) All Hazards Weather Network (NAHWN) aka All Hazards Emergency Message Collection System (HazCollect)	This project is to automate the collection and dissemination of non-weather civil-emergency messages over NOAA Weather Radio (NWR) and to quickly and securely authenticate messages received by emergency managers.	104	007	0.0	0.0	0.0	7.0	0.0	0.000	1	0.119	0.600	0.000	0.000	0.150	0.750
006-48-01-12-01-3111-04	006-48-1450-0	NOAA: ORF										0.119	0.600	0.000	0.000	0.150	0.750
006-48-01-12-01-3111-09	Funding Source Subtotal											0.119	0.600	0.000	0.000	0.150	0.750
006-48-01-12-01-3112-00	NOAA/NWS/ National Air Quality Forecast Capability	This proposal is to implement NOAA Air Quality forecasting operationally.	108	023	0.0	0.0	0.0	5.0	0.0	0.000		4.116	7.755	7.745	0.000	0.000	0.000
006-48-01-12-01-3112-04	006-48-1450-0	NOAA: ORF										4.116	7.755	7.745	0.000	0.000	0.000
006-48-01-12-01-3112-09	Funding Source Subtotal											4.116	7.755	7.745	0.000	0.000	0.000
006-48-01-12-01-3115-00	NOAA/NWS/ NWS Office of Hydrologic Development (OHD)	Nationwide water resource forecasting capability, enhanced short-term predictions of river levels and longer-term probabilistic forecasts.	108	023	0.0	0.0	0.0	7.0	1.0	0.000		2.025	0.000	0.000	2.326	4.451	4.501
006-48-01-12-01-3115-04	006-48-1450-0	NOAA: ORF										2.025	0.000	0.000	2.326	4.451	4.501
006-48-01-12-01-3115-09	Funding Source Subtotal											2.025	0.000	0.000	2.326	4.451	4.501
006-48-01-12-01-3117-00	NOAA/NWS/ COOP Historical Climate Network - Modernization (HCN-M)	COOP HCN-M will sustain the Nation's regional climate record by modernizing 1,000 HCN sites to collect temperature and precipitation data through automation, providing expansion capacity, and addressing data quality, availability, and technology gaps.	108	023	0.0	0.0	0.0	8.0	0.0	0.000		4.218	4.234	3.734	0.000	0.000	0.000
006-48-01-12-01-3117-04	006-48-1460-0	NOAA: PAC										4.218	4.234	3.734	0.000	0.000	0.000
006-48-01-12-01-3117-09	Funding Source Subtotal											4.218	4.234	3.734	0.000	0.000	0.000
006-48-01-12-01-3118-00	NOAA/NWS/ NWS Regions & Field	IT resources for weather and water information and warning services are used by the NWS Regions & Fields, the single points of access, to federal, state and local governments and emergency manager coordinators in every state.	108	023	0.0	0.0	0.0	10.0	0.0	0.000		0.000	0.000	0.000	21.900	21.900	21.900
006-48-01-12-01-3118-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	21.900	21.900	21.900
006-48-01-12-01-3118-09	Funding Source Subtotal											0.000	0.000	0.000	21.900	21.900	21.900
006-48-01-12-01-3119-00	NOAA/NWS/ NDBC Ocean Observing System of Systems (NOOSS)	Investments are for the operations and maintenance of the NWS/NDBC Ocean Observing System of Systems (NOOSS). NOOSS includes the Data Assembly Center, C-MAN, meteorological, oceanographic, Tsunami, and climate (el nino) buoys.	108	023	0.0	0.0	0.0	5.0	0.0	0.000	4	0.000	0.000	0.000	7.125	7.125	7.125
006-48-01-12-01-3119-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	7.125	7.125	7.125
006-48-01-12-01-3119-09	Funding Source Subtotal											0.000	0.000	0.000	7.125	7.125	7.125
006-48-01-12-01-3120-00	NOAA/NWS/ NWS Dissemination Systems (NDS)	Investments for three NWS information dissemination systems used to provide the US public and emergency managers warnings of severe weather events and weather information in support of aviation and civil activities in the Atlantic and Pacific basins.	108	023	0.0	0.0	0.0	7.0	0.0	0.000	5	0.000	0.000	0.000	3.828	4.438	4.448
006-48-01-12-01-3120-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	3.828	4.438	4.448
006-48-01-12-01-3120-09	Funding Source Subtotal											0.000	0.000	0.000	3.828	4.438	4.448

NOAA Agency IT Investment Portfolio, 1/7/2008; $M
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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-12-01-3123-00	NOAA/NWS/ Automated Surface Observing System (ASOS) Operations and Maintenance	ASOS is the nation's primary surface weather observing network supporting aviation operations and weather forecasting. By replacing manual surface observation techniques, it provides improved efficiency to acquire and record surface atmospheric phenomena.	108	023	0.0	0.0	0.0	8.0	0.0	0.000		0.000	0.000	0.000	2.431	2.450	2.950
006-48-01-12-01-3123-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	2.431	2.450	2.950
006-48-01-12-01-3123-09	Funding Source Subtotal											0.000	0.000	0.000	2.431	2.450	2.950
006-48-01-12-01-3124-00	NOAA/NWS/ Weather Radio Improvement Project (WRIP)	WRIP replaces the obsolete Console Replacement System of NOAA Weather Radio (NWR) and provides the Dept. of Homeland Security access to NWR for broadcasting emergency messages. WRIP Consolidates NWR and NOAA Weather Wire Service system infrastructures.	108	023	0.0	0.0	0.0	7.0	0.0	0.000	5	2.100	3.000	5.740	0.000	0.000	0.000
006-48-01-12-01-3124-04	006-48-1460-0	NOAA: PAC										2.100	3.000	5.740	0.000	0.000	0.000
006-48-01-12-01-3124-09	Funding Source Subtotal											2.100	3.000	5.740	0.000	0.000	0.000
006-48-01-12-01-3211-00	NOAA/NESDIS/ NPOESS Data Exploitation (NDE)	The NPOESS Data Exploitation Project will develop, implement and test key data processing and distribution systems within NOAA/NESDIS and deliver enhanced environmental observations to NOAA Operational Centers and other civilian customers.	108	023	0.0	0.0	0.0	7.0	0.0	0.000		4.455	2.394	2.455	0.000	0.000	0.000
006-48-01-12-01-3211-04	006-48-1460-0	NOAA: PAC										4.455	2.394	2.455	0.000	0.000	0.000
006-48-01-12-01-3211-09	Funding Source Subtotal											4.455	2.394	2.455	0.000	0.000	0.000
006-48-01-12-02-3109-00	NOAA/NWS/ Automated Surface Observing System (ASOS) Product Improvement	ASOS, the nation's primary surface weather observing network, supports aviation operations & weather forecasting. Replacing manual surface observation techniques, it provides improved efficiency to acquire & record surface atmospheric phenomena.	108	023	0.0	0.0	0.0	0.0	0.0	0.000		0.300	0.300	0.300	0.000	0.000	0.000
006-48-01-12-02-3110-00	NOAA/NWS/Data Assimilation and Modeling	IT resources used to develop new methods for coupling atmosphere, ocean, land surface and cryosphere models which will enable the next generation of numerical forecast systems to be developed.	108	023	0.0	0.0	0.0	1.0	0.0	0.000		0.000	0.000	0.000	2.181	2.181	2.181
006-48-01-12-02-3122-00	NOAA/NWS/ NOAA Profiler Network	NOAA NWS Profiler is a vertical looking, radar-based observation system for acquiring information about tornados, flash floods, and winter storms. There are 35 operational Profiler radars deployed in the US, 32 in the central US and 3 in Alaska.	108	023	0.0	0.0	0.0	8.0	0.0	0.000		0.000	0.000	4.300	0.460	0.460	0.460
006-48-01-12-02-3998-00	NOAA/CAO/ NOAA Center Weather and Climate Prediction (NCWCP) - Ex 53 (IT equipment)	This is for the IT component of the investment for the new construction of the NCWCP. The IT resources are to provide the critical IT and communications infrastructure in the NCWCP and will support parallel operations during the move.	108	023	0.0	0.0	0.0	10.0	0.0	0.000		6.700	0.000	0.000	0.000	0.000	0.000
006-00-01-13-00-0000-00	**NOAA - Climate**											**7.035**	**9.007**	**7.628**	**67.114**	**73.435**	**78.242**
006-48-01-13-01-3205-00	NOAA/NESDIS/ Comprehensive Large Array-data Stewardship System (CLASS)	The CLASS project will implement efficient management of high volumes (petaybtes) of data and automate the means of data ingest, quality control and access.	108	023	0.0	0.0	0.0	7.0	0.0	0.000		6.435	5.707	5.828	2.466	3.073	3.138

NOAA Agency IT Investment Portfolio, 1/7/2008; $M
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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-13-01-3205-04	006-48-1460-0	NOAA: PAC										4.942	4.742	4.838	1.027	1.573	1.638
006-48-01-13-01-3205-04	006-48-1460-0	NOAA: PAC B										1.493	0.965	0.990	0.000	0.000	0.000
006-48-01-13-01-3205-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	1.439	1.500	1.500
006-48-01-13-01-3205-09	Funding Source Subtotal											6.435	5.707	5.828	2.466	3.073	3.138
006-48-01-13-01-3209-00	NOAA/NESDIS/ NOAA National Data Centers (NNDC)	The NOAA NESDIS National Data Centers have the ultimate responsibility for the long term-management and stewardship of the bulk of NOAA's data, in addition to environmental data collected by other Federal agencies, countries and research programs.	108	023	0.0	0.0	0.0	6.0	0.0	0.000		0.000	0.000	0.000	47.742	52.650	55.900
006-48-01-13-01-3209-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	47.742	52.650	55.900
006-48-01-13-01-3209-09	Funding Source Subtotal											0.000	0.000	0.000	47.742	52.650	55.900
006-48-01-13-01-3214-00	NOAA/NESDIS/National Integrated Drought Information System (NIDIS) Implementation	NIDIS will provide drought information through a web-based drought portal that offers user-friendly access to historical and real-time climate and weather data. Coupled with soil moisture sensors, NIDIS supports US GEO Near-Term Opportunities.	108	023	0.0	0.0	0.0	7.0	0.0	0.000		0.000	3.300	1.800	0.000	0.000	0.000
006-48-01-13-01-3214-04	006-48-1450-0	NOAA: ORF										0.000	3.300	1.800	0.000	0.000	0.000
006-48-01-13-01-3214-09	Funding Source Subtotal											0.000	3.300	1.800	0.000	0.000	0.000
006-48-01-13-01-3504-00	NOAA/OAR/ NOAA Research Scientific Computing Support	Periodic technical refreshment of IT computing resources and associated IT maintenance and support services used to conduct short, mid and long term climate and weather research.	108	023	0.0	0.0	0.0	9.0	0.0	0.000		0.000	0.000	0.000	16.906	17.712	19.204
006-48-01-13-01-3504-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	16.906	17.712	19.204
006-48-01-13-01-3504-09	Funding Source Subtotal											0.000	0.000	0.000	16.906	17.712	19.204
006-48-01-13-02-3207-00	NOAA/NESDIS/ Global Earth Observation Integrated Data Environment (GEO IDE)	Development of a NOAA Global Earth Observation Integrated Data Environment--establishing a services oriented architecture for NOAA data management systems, providing common services, ands leveraging the benefits of existing data management systems.	404	137	0.0	0.0	0.0	0.0	0.0	0.000		0.600	0.000	0.000	0.000	0.000	0.000
006-00-01-14-00-0000-00	**NOAA - Ecosystems**											**2.425**	**2.635**	**2.985**	**9.458**	**9.654**	**9.879**
006-48-01-14-02-3168-00	NOAA/NMFS/ Vessel Monitoring System	The Vessel Monitoring System (VMS) is a satellite based tool for monitoring control and surveillance of the 3.4 million mile jurisdiction of the NOAA Office for Law Enforcement.	115	045	0.0	0.0	0.0	6.0	5.0	0.008	1	0.000	0.000	0.000	9.198	9.259	9.259
006-48-01-14-02-3304-00	NOAA/NMFS/ Fisheries Information System	Harmonization and integration of disparate state and federal information collection systems to enhance the ecosystems-based management of marine fisheries through improved data quality and management.	117	057	0.0	0.0	0.0	7.0	0.0	0.000		0.360	0.250	0.200	0.260	0.370	0.420
006-48-01-14-02-3305-00	NOAA/NMFS/ Permits	The investment will enable NMFS to better serve customers with an improved national fisheries permit system. The agency wide online system will be utilized by NMFS and the public to process permit applications and renewals.	755	638	0.0	0.0	0.0	5.0	0.0	0.000		0.780	0.770	0.945	0.000	0.000	0.000
006-48-01-14-02-3306-00	NOAA/NMFS/ Northeast Fisheries Information Management System (NE-FIMS)	The intent of the Northeast Fisheries Information Management System is to design, develop and implement an integrated fisheries-dependent information management system for the Northeast Region.	117	057	0.0	0.0	0.0	5.0	0.0	0.000		0.885	0.965	0.940	0.000	0.025	0.050

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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-14-02-3307-00	NOAA/NMFS/Marine Recreational Information Program (MRIP)	The investment will enable NMFS to better serve customers with improved recreational fisheries surveys. The agency wide online system will be utilized by NMFS to construct the comprehensive telephone/address directories to conduct effient surveys.	117	057	0.0	0.0	0.0	7.0	0.0	0.000		0.400	0.650	0.900	0.000	0.000	0.150
006-00-01-15-00-0000-00	**NOAA Commerce and Transportation**											**0.000**	**0.469**	**0.231**	**13.913**	**13.532**	**16.333**
006-48-01-15-01-3208-00	NOAA/NESDIS/ Search and Rescue Satellite-Aided Tracking (SARSAT)	SARSAT system locates those in distress almost anywhere in the world at anytime. Its Mission Control Center processes the distress signal and alerts the appropriate search and rescue authorities to who is in distress and where they are located.	104	010	0.0	0.0	0.0	8.0	0.0	0.000	5	0.000	0.469	0.231	2.741	2.344	3.374
006-48-01-15-01-3208-04	006-48-1460-0	NOAA: PAC										0.000	0.469	0.231	0.456	0.000	0.720
006-48-01-15-01-3208-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	2.285	2.344	2.654
006-48-01-15-01-3208-09	Funding Source Subtotal											0.000	0.469	0.231	2.741	2.344	3.374
006-48-01-15-01-3401-00	NOAA/NOS/ Nautical Charting System	The Nautical Charting System (NCS) supports the production of essential navigation products that currently comprise a suite of 1000 paper and raster products and ultimately 1000 Electronic Navigational Charts (ENC).	118	062	0.0	0.0	0.0	6.0	0.0	0.000		0.000	0.000	0.000	3.395	3.119	3.879
006-48-01-15-01-3401-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	3.395	3.119	3.879
006-48-01-15-01-3401-09	Funding Source Subtotal											0.000	0.000	0.000	3.395	3.119	3.879
006-48-01-15-01-3402-00	NOAA/NOS/ PORTS & NWLON	The PORTS and NWLON IT System generates an integrated set of environmental information that is used as a decision support tool by its customers for improving the safety and efficiency of maritime commerce and coastal resource management.	118	062	0.0	0.0	0.0	7.0	0.0	0.000		0.000	0.000	0.000	3.694	3.891	4.807
006-48-01-15-01-3402-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	3.694	3.891	4.807
006-48-01-15-01-3402-09	Funding Source Subtotal											0.000	0.000	0.000	3.694	3.891	4.807
006-48-01-15-01-3403-00	NOAA/NOS/ Geodetic Support System	The Geodetic Support System processes data for the National Spatial Reference System and geoid models. Plans are to expand to 1,500 Continously Operating Reference Stations (CORS).	703	525	0.0	0.0	0.0	14.0	0.0	0.000		0.000	0.000	0.000	1.625	1.720	1.815
006-48-01-15-01-3403-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	1.625	1.720	1.815
006-48-01-15-01-3403-09	Funding Source Subtotal											0.000	0.000	0.000	1.625	1.720	1.815
006-48-01-15-02-3601-00	NOAA/OMAO/ NOAA Marine and Aviation Operations	NOAA ships and aircraft use IT resources to support data acquisition capabilities, which enable scientists and environmental managers to make decisions based on real-time data access and visualization.	404	139	0.0	0.0	0.0	1.5	0.0	0.000		0.000	0.000	0.000	2.458	2.458	2.458
006-00-01-16-00-0000-00	**NOAA - Satellite Services**											**44.478**	**51.346**	**118.373**	**85.164**	**92.969**	**100.066**
006-48-01-16-01-3201-00	NOAA/NESDIS/ GOES Ground System	The Geostationary Operational Environmental Satellite (GOES) ground system monitors and controls NOAA's geostationary environmental satellites.	108	023	0.0	0.0	0.0	7.0	0.0	0.000	5	0.420	0.200	0.000	20.953	19.452	19.744
006-48-01-16-01-3201-04	006-48-1460-0	NOAA: PAC										0.420	0.200	0.000	20.953	19.452	19.744
006-48-01-16-01-3201-09	Funding Source Subtotal											0.420	0.200	0.000	20.953	19.452	19.744

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			Primary FEA Mapping (BRM or SRM)		Percentage (%)					HSPD-12 ($M)	Homeland Security	DME ($M)			Steady State ($M)		
2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-16-01-3202-00	NOAA/NESDIS/ POES Ground System	POES ground system monitors and controls NOAA's polar-orbiting operational environmental satellites. IT hardware/software upgrades are underway for future satellites.	108	023	0.0	0.0	0.0	8.0	0.0	0.000		4.309	2.200	0.000	12.891	13.754	15.274
006-48-01-16-01-3202-04	006-48-1460-0	NOAA: PAC										4.309	2.200	0.000	12.891	13.754	15.274
006-48-01-16-01-3202-09	Funding Source Subtotal											4.309	2.200	0.000	12.891	13.754	15.274
006-48-01-16-01-3204-00	NOAA/NESDIS/ Office of Satellite Data Processing and Distribution (OSDPD) Systems Critical Infrastructure Protection (CIP)	The NESDIS OSDPD-CIP project will provide a backup facility to the Environmental Satellite Processing Center (ESPC) primary facility that is the central processing system for environmental satellite data.	302	095	0.0	0.0	0.0	12.0	0.0	0.000		1.956	1.212	0.967	0.816	1.491	1.805
006-48-01-16-01-3204-04	006-48-1460-0	NOAA: PAC										1.956	1.212	0.967	0.816	1.491	1.805
006-48-01-16-01-3204-09	Funding Source Subtotal											1.956	1.212	0.967	0.816	1.491	1.805
006-48-01-16-01-3206-00	NOAA/NESDIS/ Satellite Operations Control Center Command and Data Acquisition (SOCC/CDA)	This investment is used by the Office of Satellite Operations (OSO) to command and control the POES and GOES satellites, to track the satellites, and to acquire their data.	108	023	0.0	0.0	0.0	7.0	0.0	0.000		0.000	0.000	0.000	33.236	35.257	37.938
006-48-01-16-01-3206-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	33.236	35.257	37.938
006-48-01-16-01-3206-09	Funding Source Subtotal											0.000	0.000	0.000	33.236	35.257	37.938
006-48-01-16-01-3212-00	NOAA/NESDIS/ NPOESS Ground System	IT support for the Nation's civil and military polar-orbiting operational meteorological satellite system into a single national entity capable of satisfying both civil and national security requirements for space-based remotely sensed environmental data.	108	023	0.0	0.0	0.0	4.0	0.0	0.000		33.750	41.945	47.115	0.000	0.000	0.000
006-48-01-16-01-3212-04	006-48-1460-0	NOAA: PAC										33.750	41.945	47.115	0.000	0.000	0.000
006-48-01-16-01-3212-09	Funding Source Subtotal											33.750	41.945	47.115	0.000	0.000	0.000
006-48-01-16-01-3213-00	NOAA/NESDIS/ Environmental Satellite Processing Center (ESPC)	This investment is for the consolidation of two environmental processing systems for Polar (CEMSCS) and GOES (SATEPS) satellite data, into one central processing system for environmental satellite data, Environmental Satellite Processing Center (ESPC).	108	023	0.0	0.0	0.0	8.0	0.0	0.000		2.043	3.617	1.352	17.268	23.015	25.305
006-48-01-16-01-3213-04	006-48-1450-0	NOAA: ORF										0.716	3.617	1.352	16.228	19.937	22.723
006-48-01-16-01-3213-04	006-48-1460-0	NOAA: PAC										1.327	0.000	0.000	1.040	3.078	2.582
006-48-01-16-01-3213-09	Funding Source Subtotal											2.043	3.617	1.352	17.268	23.015	25.305
006-48-01-16-01-3215-00	NOAA/NESDIS/ GOES-R Series Ground Segment	The Geostationary Operational Environmental Satellite (GOES-R) Ground Segment monitors and controls NOAA's GOES-R satellites.	108	023	0.0	0.0	0.0	10.0	0.0	0.000		2.000	2.172	68.939	0.000	0.000	0.000
006-48-01-16-01-3215-04	006-48-1460-0	NOAA: PAC										2.000	2.172	68.939	0.000	0.000	0.000
006-48-01-16-01-3215-09	Funding Source Subtotal											2.000	2.172	68.939	0.000	0.000	0.000
006-00-01-17-00-0000-00	**NOAA - Modeling and Observation**											**0.000**	**0.000**	**0.000**	**75.687**	**75.908**	**79.601**
006-48-01-17-01-3104-00	NOAA/NWS/ NCEP Weather and Climate Operational Supercomputer Systems (WCOSS Primary and Backup)	The NOAA NCEP Weather & Climate Supercomputer Systems (Primary and Backup) produces environmental forecasts and assimilate data used to execute the numerical models that form the basis for all routine weather and climate forecasts produced in the US.	108	023	0.0	0.0	0.0	5.0	0.0	0.000	5	0.000	0.000	0.000	20.270	20.369	22.369
006-48-01-17-01-3104-04	006-48-1460-0	NOAA: PAC										0.000	0.000	0.000	20.270	20.369	20.369
006-48-01-17-01-3104-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	0.000	0.000	2.000

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2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-48-01-17-01-3104-09	Funding Source Subtotal											0.000	0.000	0.000	20.270	20.369	22.369
006-48-01-17-01-3113-00	NOAA/NWS/ NCEP Weather and Climate Computing Infrastructure Services (WCCIS)	The NOAA NWS NCEP Weather and Climate Commuting Infrastructure Services (WCCIS) provide support resources for (a) weather and climate forecasting capabilities and (b) operational model development for forecasts and warnings.	108	023	0.0	0.0	0.0	10.0	0.0	0.010	4,5	0.000	0.000	0.000	29.009	29.976	30.708
006-48-01-17-01-3113-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	29.009	29.976	30.708
006-48-01-17-01-3113-09	Funding Source Subtotal											0.000	0.000	0.000	29.009	29.976	30.708
006-48-01-17-01-3804-00	NOAA/OCIO/ NOAA R&D High Performance Computing System	High performance computing resources are used for weather and climate research in the development and use of sophisticated numerical models to predict and understand atmospheric and oceanic phenomena.	108	023	0.0	0.0	0.0	5.0	0.0	0.065		0.000	0.000	0.000	26.408	25.563	26.524
006-48-01-17-01-3804-04	006-48-1460-0	NOAA: PAC										0.000	0.000	0.000	16.179	15.281	16.179
006-48-01-17-01-3804-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	10.229	10.282	10.345
006-48-01-17-01-3804-09	Funding Source Subtotal											0.000	0.000	0.000	26.408	25.563	26.524
006-00-02-00-00-0000-00	**Part 2. IT Infrastructure and Office**											**15.409**	**0.000**	**0.000**	**396.440**	**415.176**	**432.269**
006-03-02-00-01-0511-00	Department of Commerce Consolidated IT Infrastructure	DOC CIO's strategy to effectively manage DOC's IT infrastructure. Consistent with the OMB ITILOB is the DOC vision: "mission driven, managed, visible, appropriate, balanced, aligned, and integrated with mission, strategic and technical direction."	404	139	0.0	0.0	0.0	8.4	0.5	1.306		15.409	0.000	0.000	396.440	415.176	432.269
006-03-02-00-01-0511-04	006-30-0300-0	BIS: Operations and Administration										0.000	0.000	0.000	2.579	2.748	2.748
006-03-02-00-01-0511-04	006-07-0450-0	Census: Periodic Census and Programs										0.000	0.000	0.000	78.455	83.265	87.876
006-03-02-00-01-0511-04	006-07-4512-0	Census: Working Capital Fund										0.000	0.000	0.000	32.045	34.010	35.893
006-03-02-00-01-0511-04	006-05-4511-0	DM: Working Capital Fund										0.000	0.000	0.000	12.308	13.434	13.409
006-03-02-00-01-0511-04	006-06-0125-0	EDA: Salaries and Expenses										0.000	0.000	0.000	0.670	0.660	0.681
006-03-02-00-01-0511-04	006-08-4323-0	ESA: Revolving Fund										0.000	0.000	0.000	0.047	0.019	0.017
006-03-02-00-01-0511-04	006-08-1500-0	ESA: Salaries and Expenses										0.000	0.000	0.000	3.498	3.715	3.793
006-03-02-00-01-0511-04	006-25-1250-0	ITA: Operations and Administration										0.000	0.000	0.000	26.163	24.281	23.993
006-03-02-00-01-0511-04	006-40-0201-0	MBDA: Minority Business Development										0.000	0.000	0.000	1.394	1.394	1.456
006-03-02-00-01-0511-04	006-55-0500-0	NIST: Sci and Tech Research and Services										0.000	0.000	0.000	1.827	1.860	1.897
006-03-02-00-01-0511-04	006-55-4650-0	NIST: Working Capital Fund										0.000	0.000	0.000	23.368	23.943	24.541
006-03-02-00-01-0511-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	109.739	109.285	113.497
006-03-02-00-01-0511-04	006-48-1460-0	NOAA: PAC										0.000	0.000	0.000	7.476	6.714	7.477
006-03-02-00-01-0511-04	006-60-0550-0	NTIA: Salaries and Expenses										0.000	0.000	0.000	1.285	3.776	3.745
006-03-02-00-01-0511-04	006-05-0126-0	OIG: Office of Inspector General										0.000	0.000	0.000	2.200	2.200	2.600
006-03-02-00-01-0511-04	006-51-1006-0	USPTO: Salaries and Expenses										15.409	0.000	0.000	93.388	103.873	108.646
006-03-02-00-01-0511-09	Funding Source Subtotal											15.409	0.000	0.000	396.440	415.176	432.269
006-00-03-00-00-0000-00	**Part 3. Enterprise Architecture & Planning**											**14.572**	**11.915**	**14.088**	**44.196**	**36.573**	**40.258**
006-48-03-00-02-3702-00	NOAA/NOAA Systems/ NOAA-Wide Enterprise IT Architecture	IT resources are used to support NOAA-wide IT Architecture activities for strategic, operational and capital planning and investment management.	304	103	0.0	0.0	0.0	0.0	0.0	0.000		0.000	0.000	0.000	1.400	1.393	1.393
006-48-03-00-02-3703-00	NOAA/NOAA Systems/ NOAA-Wide Enterprise IT Planning	IT resources are used to support NOAA-wide IT Planning activities for strategic, operational and capital planning and investment management.	304	102	0.0	0.0	0.0	3.0	0.0	0.000		0.000	0.000	0.000	2.719	2.800	2.885

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2009 UPI	Investment Title	Investment Description	Line of Business or Service Type	Sub-Function or Svc Component	BF	BE	Financial	IT Security	IPv6	PY	Priority Identifier	PY	CY	BY	PY	CY	BY
006-00-04-00-00-0000-00	**Part 4. Grants Management**											**0.000**	**0.000**	**0.000**	**2.811**	**3.004**	**3.469**
006-48-04-00-01-3802-00	NOAA/OCIO/ NOAA Grants On-line	The NOAA-wide Grants back-end processing system consists of a web-based application that will interface with grants.gov for the "Find and Apply" functions.	751	601	0.0	0.0	5.0	7.0	0.0	0.000		0.000	0.000	0.000	1.496	1.496	1.496
006-48-04-00-01-3802-04	006-48-1450-0	NOAA: ORF										0.000	0.000	0.000	1.496	1.496	1.496
006-48-04-00-01-3802-09	Funding Source Subtotal											0.000	0.000	0.000	1.496	1.496	1.496
006-00-05-00-00-0000-00	**Part 5. IT Grants to State and Locals (optional)**											**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
006-00-06-00-00-0000-00	**Part 6. National Security Systems**											**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**