



SOCIAL SECURITY

MEMORANDUM

Date: March 16, 2009

Refer To:

To: The Commissioner

From: Inspector General

Subject: The Social Security Administration's Ability to Address Future Processing Requirements
(A-44-09-19098)

The attached final quick response evaluation presents the results of our review. Our objective was to assess the Social Security Administration's efforts to address future processing needs and infrastructure issues at the National Computer Center. Specifically, we assessed the Agency's actions to address significant issues identified in Lockheed Martin's National Computer Center Feasibility Study.

If you wish to discuss the final report, please call me or have your staff contact Steven L. Schaeffer, Assistant Inspector General for Audit, at (410) 965-9700.



Patrick P. O'Carroll, Jr.

Attachment

QUICK RESPONSE EVALUATION

***The Social Security Administration's
Ability to Address Future Processing
Requirements***

A-44-09-19098



March 2009

Mission

By conducting independent and objective audits, evaluations and investigations, we inspire public confidence in the integrity and security of SSA's programs and operations and protect them against fraud, waste and abuse. We provide timely, useful and reliable information and advice to Administration officials, Congress and the public.

Authority

The Inspector General Act created independent audit and investigative units, called the Office of Inspector General (OIG). The mission of the OIG, as spelled out in the Act, is to:

- Conduct and supervise independent and objective audits and investigations relating to agency programs and operations.
- Promote economy, effectiveness, and efficiency within the agency.
- Prevent and detect fraud, waste, and abuse in agency programs and operations.
- Review and make recommendations regarding existing and proposed legislation and regulations relating to agency programs and operations.
- Keep the agency head and the Congress fully and currently informed of problems in agency programs and operations.

To ensure objectivity, the IG Act empowers the IG with:

- Independence to determine what reviews to perform.
- Access to all information necessary for the reviews.
- Authority to publish findings and recommendations based on the reviews.

Vision

We strive for continual improvement in SSA's programs, operations and management by proactively seeking new ways to prevent and deter fraud, waste and abuse. We commit to integrity and excellence by supporting an environment that provides a valuable public service while encouraging employee development and retention and fostering diversity and innovation.

Executive Summary

OBJECTIVE

Our objective was to assess the Social Security Administration's (SSA) efforts to address future processing needs and infrastructure issues at the National Computer Center (NCC). Specifically, we assessed SSA's actions to address significant issues identified in Lockheed Martin's (LM) NCC Feasibility Study.

BACKGROUND

SSA's NCC houses the infrastructure that supports the Social Security programs provided to the public and other services provided to Federal, State, international and private agencies. It was built in 1979. The design and age of the NCC, as well as the increasing workload due to the retirement of the baby boom generation, has raised concerns about SSA's ability to address future processing requirements. Because of the critical systems SSA supports, an NCC outage would have a devastating effect on both the Agency and the people it serves. In Fiscal Year (FY) 2008, LM completed a study of the NCC that identified infrastructure and data processing capacity issues. These issues pose a significant risk to SSA's continuity of operations.

RESULTS OF REVIEW

LM recommended 17 projects that should be undertaken at SSA's NCC and its Utility Building to sustain existing information technology (IT) operations through the end of Calendar Year 2014. Of the 17, LM recommended three projects the Agency should defer because of the NCC's anticipated change in functional role.¹ Based on our review, we found SSA had taken or planned some corrective action on 13 of the 17 recommendations.² Three of the most significant recommended projects SSA has not yet fully addressed are (1) addressing the single point of failure³ in the electrical feed to the NCC, (2) completing the Riser Project, and (3) replacing the Uninterruptible Power Supply (UPS)⁴ system.

¹ To support SSA's data processing operations for the next 20 years, LM recommended SSA build or lease a new Data Center. The Agency is considering several long-range options to replace the NCC. We plan to report on the status of these plans in a separate report later this year.

² The Agency plans to defer the following three recommendations: (1) heating, ventilation and air conditioning distribution replacement (2) emergency power off installation, and (3) fire suppression installation. Further, the Agency has not taken or planned corrective action to address the physical security monitoring issue identified by LM. SSA's position is the physical security vulnerability identified by LM cannot be prevented. See Appendix C for a detailed discussion of the 17 LM recommendations.

³ A single point of failure is a point (electrical equipment, cables, etc.) on a power system that can cause downtime if a failure or fault occurs.

⁴ A UPS, also known as a battery back-up system, provides emergency power to connected equipment by supplying power from a separate source when utility power is not available.

The Agency reported it awarded a contract to replace the feeder cables in September 2008. As of March 2009, the Agency reported the new feeder cables are installed, tested, energized, and in use. The contractor has until April 2009 to complete the rest of the project. Further, the Agency stated it cannot eliminate the single point of failure without totally restructuring the electrical feeder system for the building. SSA officials acknowledged single points of failure remain that would require large-scale investments. The Agency believes making these investments is not in the best interest of the Government. The Agency reported it is planning for the most cost-effective solution for its Data Center and is trying not to waste money in the interim.

In reference to the Riser Project, the Agency scheduled the Project to be completed over three holiday weekends. However, since the earliest date of completion is Memorial Day 2010, we believe SSA needs to make this Project a higher priority because until the work is performed, the Agency remains vulnerable to an operational disruption. An NCC operational failure would hinder the Agency's ability to process tens of thousands of retirement, survivors and disability claims, as well as Social Security number verifications, possibly preventing individuals from securing employment or driver's licenses.

Regarding the replacement of the UPS system, LM recommended three options for SSA to explore: (1) a maintenance contract to the current UPS vendor that extends coverage through 2014 and still costs less than the cost to replace the old equipment; (2) stockpiling replacement equipment and hiring sufficient maintenance personnel to maintain the existing UPS system; and (3) installing at least two new systems. LM stated the third option is a "sunk cost scenario" since the new UPS system will not be needed when the new Data Center is moved. Finally, LM stated that the Agency should select the most economical option that provided the most reasonable mitigation of risk.

SSA reported it is implementing the first and second options. The Agency states option 3 was only necessary if it did not receive funding for a new Data Center. However, LM reported that "...with scheduled maintenance, these systems should provide continuous coverage. The UPS would therefore not need to be replaced until after the Data Center is moved unless the Data Center move slips past the end of 2012. However, there is no reason to solidly be able to project that these systems will be able to provide continuous coverage through the 2014 move date." Although the Agency stated that option 3 was only necessary if funding for a new data center was not received, the Agency is assuming the risk that a major failure to the UPS will not occur between 2012 and the time it occupies a new data center.

SSA is progressing on both immediate and long-term solutions to its Data Center needs. Until the significant issues identified by LM are fully addressed, the Agency's continuity of operations remains at risk. Further, until a long-range Data Center solution is implemented, SSA's data processing operations remain vulnerable.

LM identified four alternatives deemed viable to resolve the Agency's long-term data processing needs. SSA's preferred option is to build/lease a new NCC Data Center with Utility Infrastructure Off-Campus. SSA has focused its efforts on this alternative. SSA requested \$750 million for the facility and equipment costs of a new Data Center (\$400 million for the construction of a new building and \$350 million for IT costs). Under recent legislation, SSA received \$500 million for the replacement of the NCC and associated IT costs. The Agency received an additional \$500 million for processing disability and retirement workloads, including IT acquisitions and research in support of such activities.⁵

LM estimated approximately \$162 million for a 210,000 gross square foot Data Center. This did not include the costs of a building shell. In FY 2009, the General Services Administration (GSA) issued a study that estimated the total cost to construct a new approximately 309,000 gross square foot Data Center with office and warehouse space was approximately \$337 million. GSA separately estimated the land, utility infrastructure, studies and other fees would be approximately \$59 million. GSA estimated the total cost to construct a new Data Center with office and warehouse space was approximately \$396 million. Further, Booz Allen Hamilton (BAH) completed an alternative analysis that estimated it would cost about \$546 million to construct an approximately 309,000 gross square foot Data Center.⁶

We reviewed the cost data and requested detailed information to support the costs and underlying assumptions. Although SSA has provided some information, the Agency has referred us to the contractors for additional data. We will continue to work with SSA, GSA, LM and BAH to obtain additional information as needed. Further, we will continue to analyze the cost estimates to determine whether the data is accurate, relevant and supportable. We plan to acquire a contractor to perform a detailed review of the Agency's planned Data Center replacement strategy.

Additionally, we requested the Agency provide detailed cost estimates of (1) the funds requested for a new NCC and (2) renovating/maintaining the old NCC if a new NCC is built. To date, we have received detailed cost estimates for the construction of a new Data Center and the related IT costs. However, the Agency has not provided detailed cost estimates for renovating the old NCC if a new Data Center is built or leased.⁷ The Agency reported it does not have a cost estimate for renovating the NCC after a new Data Center has been built. Agency representatives stated it is too early to determine

⁵ H.R.1, *American Recovery and Reinvestment Act of 2009* Division A – Appropriations Provisions, Title VIII—Departments of Labor, Health and Human Services, and Education, and Related Agencies. Social Security Administration Limitation on Administrative Expenses (including transfer of funds), H.R.1-71.

⁶ During a discussion with BAH representatives on February 19, 2009, we were informed the cost estimates included in their alternative analysis have been revised. However, to date, we have not received the revised report.

⁷ SSA provided the NCC's estimated annual maintenance costs for FYs 2009 through 2011. These costs are \$13.3 million, \$15.4 million and \$17 million, respectively. Agency representatives stated on-going maintenance for the NCC would be comparable to past years with the exception of some of the larger sunk costs necessary if SSA is not in a new facility within 3 to 5 years.

the future use of the NCC. Possibly in 2014-2015, at the earliest, the Agency would have a prospectus submission for renovations of the NCC. We believe the Agency should begin to plan now for the costs associated with operating, renovating or disposing of the current NCC after a new data center is built. These costs should be considered during the planning process for a new Data Center.

MATTERS FOR CONSIDERATION

Our review determined that SSA had taken or planned some actions to address the NCC's sustainability through 2014 and requested and received funding for a replacement NCC. Going forward, the Agency needs to focus its efforts on detailed plans (1) to acquire, construct and operate a new Data Center; (2) and cost estimates for the use and/or disposal of the NCC should a new primary Data Center be built; and (3) for IT requirements for the next 5, 10 and 20 years.⁸ Further, SSA should identify the underlying factors that allowed the current NCC situation to occur and implement the necessary controls to prevent this situation from recurring in the future. Until SSA addresses the issues identified in this report, its continuity of operations remains at risk.

⁸ In February 2009, SSA released its *Information Technology Vision 2009–2014* which included its plans for IT needs. The Agency's IT vision includes a planned timeline for implementation of IT initiatives through 2014. SSA believes this allows it to forecast needed future processing requirements in all major areas that will impact the Agency. SSA reported that it prepares information on future processing needs through the Information Technology Systems Budget process. Each year, the Agency reports it develops information 6 years into the future. The Agency believes the processes in place prepare it to meet SSA's needs. We reviewed the Agency's *IT Vision 2009–2014* and determined the document does not contain detailed cost estimates for implementing the vision. In a future review, we plan to assess whether the Agency adequately developed a comprehensive Agency Information Infrastructure Plan designed to meet potential processing needs for the next 20 years and allows the Agency to recover quickly if one or more major component of its processing infrastructure fails or is destroyed.

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Background

OBJECTIVE

Our objective was to assess the Social Security Administration's (SSA) efforts to address future processing needs and infrastructure issues at the National Computer Center (NCC). Specifically, we assessed SSA's actions to address significant issues identified in Lockheed Martin's (LM) NCC Feasibility Study.

BACKGROUND

SSA's mission is to deliver services that meet the public's changing needs. Effective and efficient data processing is essential to SSA fulfilling its mission. SSA's NCC houses the infrastructure that supports the Social Security programs provided to the public and other services provided to Federal, State, international and private agencies.

The Agency's computer system maintains demographic, earnings, and benefit information on almost every American. SSA processes over 75 million business transactions a day and stores almost 250 million medical records, while adding 2 million more each week. Also, the Agency exchanges over 1 billion data files annually with government and business entities for benefit management and homeland security purposes.

Because of the critical systems SSA supports, an outage at the NCC would be devastating to both the Agency and the people it serves. SSA estimates it would cost \$25 million each day its systems are down. However, the cost to its customers, the American people, would be much higher. Each day SSA systems are down, it cannot process tens of thousands of retirement, survivors and disability claims, as well as Social Security number verifications, possibly preventing individuals from securing employment or driver's licenses.

As part of the Agency's Information Technology Operations Assurance initiative, SSA is establishing the Durham Support Center (DSC). According to SSA, the DSC is designed to process a portion of SSA's critical and non-critical workloads and mitigate the risks associated with NCC downtime. Each Data Center will back up the data assets of the other. In the event of a disaster, the critical workloads from the impacted facility will be assumed by the other.¹ However, if the NCC should be lost in a disaster,

¹ In our review, *Processing Capacity of the Social Security Administration's Durham Support Center* (A-14-09-19100), we will review the plan, design, status and data processing capacity of SSA's DSC.

SSA's plans are that telephone, network and communication functions will automatically transfer to the DSC, which will also assume the critical workloads for the NCC within 24 hours.²

The NCC was built in 1979 and was occupied in May 1980. The design and age of the NCC as well as the increasing workload due to the retirement of the baby boom generation, has raised concerns about SSA's ability to address future processing requirements. In Fiscal Year (FY) 2008, LM completed a study of the NCC that identified infrastructure and data processing capacity issues. These issues pose a significant risk to SSA's continuity of operations. For this evaluation, we reviewed the corrective actions planned or taken by SSA to address the significant issues and recommendations identified by LM.³ See Appendix B for a detailed discussion of our Scope and Methodology.

² The Agency stated the “ ‘core business processes,’ ‘critical production’ and ‘critical workloads’ are often used generally and interchangeably around the Agency. These terms are common and must be considered in the context of their use. The actual, detailed components of all of these ‘c’-workloads can change as new/enhanced/repaired SSA applications, systems and hardware are introduced into the IT architecture. These workloads allow us to pay people, exchange data, communicate and manage records (which includes issuing SSNs).”

³ *Lockheed Martin’s Final Feasibility Study*, February 8, 2008 and *Final Transitional Strategy and Project Management Plan*, February 29, 2008.

Results of Review

LM recommended 17 projects that should be undertaken at SSA's NCC and its Utility Building to sustain existing information technology (IT) operations through the end of Calendar Year 2014. Of the 17, LM recommended 3 projects the Agency should defer, because of the NCC's anticipated change in functional role.⁴ We found SSA had taken or planned some corrective action on 13 of the 17 recommendations.⁵ Although SSA is making progress on both immediate and long-term solutions to its Data Center needs, the Agency's continuity of operations remains at risk until the significant issues identified by LM are fully addressed. Further, until a long-range Data Center solution is implemented, SSA's data processing operations remain vulnerable.

Additionally, we requested the Agency provide detailed cost estimates of (1) the funds requested for a new NCC and (2) renovating/maintaining the old NCC if a new NCC is built. To date, we have received detailed cost estimates for the construction of a new Data Center and the related IT costs. However, the Agency has not provided detailed cost estimates for renovating the old NCC if a new Data Center is built or leased.⁶ The Agency reported it does not have a cost estimate for renovating the NCC after a new Data Center has been built. Agency representatives stated it is too early in the process to determine the future use of the NCC. Possibly in 2014-2015, at the earliest, the Agency would have a prospectus submission for renovations of the NCC. We believe the Agency should begin to plan now for the costs associated with operating, renovating or disposing of the current NCC after a new data center is built. These costs should be considered during the planning process for a new Data Center.

STATUS OF ACTIONS TO ADDRESS LM'S RECOMMENDATIONS

Below, we discuss LM's most significant recommendations, the corrective actions planned or taken by the Agency to date, and the results of our review. Three of the most significant actions SSA has not yet fully addressed are (1) addressing the single point of failure in the electrical feed to the NCC, (2) completing the Riser Project and

⁴ To support SSA's data processing operations for the next 20 years, LM recommended SSA build or lease a new Data Center. The Agency is considering several long-range options to replace the NCC. We plan to report on the status of these plans in a separate review later this year.

⁵ The Agency plans to defer the following three recommendations: (1) heating, ventilation and air conditioning distribution replacement (2) emergency power off installation, and (3) fire suppression installation. Further, the Agency has not taken or planned corrective action to address the physical security monitoring issue identified by LM. SSA's position is the physical security vulnerability identified by LM cannot be prevented. See Appendix C for a detailed discussion of the 17 LM recommendations.

⁶ SSA provided the NCC's estimated annual maintenance costs for FYs 2009 through 2011. These costs are \$13.3 million, \$15.4 million and \$17 million, respectively. Agency representatives stated on-going maintenance for the NCC would be comparable to past years with the exception of some of the larger sunk costs necessary if SSA is not in a new facility within 3-5 years.

(3) replacing the Uninterruptible Power Supply (UPS) system. (For details on all 17 recommendations made by LM, see Appendix C.)

NCC Feeder Replacement

LM reported that the NCC feeder cables⁷ were the most apparent single point of failure⁸ in an otherwise well-engineered electrical distribution system. During the installation of the new generators and switchgear,⁹ new feeder cables from the switchgear were spliced into the existing feeder cables between the Utility Building and the NCC. These splices caused an escalated deterioration in the insulation of most of the cables, and a cable failure was imminent. This condition had the potential for a disruption of service, explosion, fire or data loss.

LM Recommendation

LM recommended SSA replace the feeder cables immediately. The cables needed to be fire-wrapped over the total length of their exposure to other cables in the common area between the Utility Building and NCC. The circuits should run without splices from the circuit breakers in the Utility Building to the “fused” switch in the NCC.

Agency Response

The Agency reported it awarded a contract to replace the feeder cables in September 2008. As of March 2009, the Agency reported the new feeder cables are installed, tested, energized, and in use. The contractor has until April 2009 to complete the rest of the project.

The Agency reported it cannot eliminate this single point of failure without totally restructuring the building’s electrical feeder system. The Agency acknowledged it has multiple points of failure that would require large-scale investments. The Agency is budgeting and designing for a new Data Center that would eliminate single points of failure. The Agency believes making these investments while pursuing funding to transition to a new Data Center is not in the best interest of the Government.

Further, SSA recognizes the NCC was not designed as a Data Center to eliminate single points of failure. Single points of failure occur throughout the building and are not easily remedied while the Data Center remains operational. The Agency does not believe it would be cost beneficial or in the best interest of the Government to eliminate the single points of failure since it is planning to replace the NCC. The Agency reported it is planning for the most cost-effective solution for its Data Center and trying not to waste money in the interim.

⁷ Feeder cables are used to supply power to the NCC and Utility Building.

⁸ A single point of failure is a point (electrical equipment, cables, etc.) on a power system that can cause downtime if a failure or fault occurs.

⁹ Switchgear is a switching/interrupting device used in connection with generation, transmission, distribution and conversion of electrical power for controlling, metering, protecting and regulating devices.

Current Status

We verified the Agency had taken actions to replace the feeder cables. We obtained the statement of work, contract award and cost estimate for the feeder cable replacement project. On September 5, 2008, a \$1.8 million contract was awarded to replace 24 feeder cables between the NCC and the Utility Building. The contractor was tasked to install temporary cables, remove existing cables, and install new, permanent cables without loss of power to the NCC. Among other requirements, all cables will be fire-taped to prevent collateral damage and will run continuous without splices from the Utility Building to the NCC.

Although the replacement of the feeder cables will resolve the splicing issues, it does not address the single point of failure, as the new cables will still run through a common area. The Agency considered multiple points of entry for the feeder cables but decided it was more practical to use the existing area because of the time, cost and modifications that would have been necessary. During a December 2008 tour of the NCC, we observed the temporary cables being installed.

Federal Pacific Electric Panel¹⁰ Replacement (Riser Project)

LM reported that this project addresses fire hazards in the NCC. The Federal Pacific Electric (FPE) circuit breakers most likely will not “open” should an “over current”¹¹ occur. The panel enclosures are not large enough to allow safe installation or removal of branch circuits. The increased heating will ultimately grow to an ignition point, and a fire could result. FPE panels are distributed throughout the interior section of the second through fifth floors of the NCC. If a fire occurs in the interior section on any floor, the UPS¹² power in the building would have to be shut down to safely fight the fire.¹³

LM Recommendation

LM recommended SSA replace the FPE panels immediately.

¹⁰ FPE manufactured a variety of electrical equipment. During the original construction of the NCC, FPE panels and breakers were installed.

¹¹ Circuit breakers cut off power when the electrical wiring has too much current flowing through it. An “over current” occurs when the current exceeds the rated capacity of that circuit or the equipment connected to that circuit.

¹² A UPS, also known as a battery back-up system, provides emergency power to connected equipment by supplying power from a separate source when utility power is not available. The UPS consists of three parts: (1) a battery system that supplies power in the event of a power outage, (2) equipment that regulates and converts the power, and (3) a notification/control system that monitors the condition of the system and produces alerts when conditions are not “normal.”

¹³ During a tour of the NCC, Agency management and staff identified where additional circuit breakers had been installed in FPE breaker panels because additional electrical capacity was needed for Data Center equipment. Agency staff acknowledged the added circuit breakers were not installed in compliance with the National Electric Code. However, the Riser Project is expected to resolve this issue.

Agency Response

The Agency reported the General Services Administration (GSA) completed a design for the Riser Project. SSA expected GSA to award a contract in March 2009. The project is scheduled to be completed over 3 holiday weekends—Columbus Day (October 2009), Washington's Birthday (February 2010) and Memorial Day (May 2010). The contingency date is Independence Day weekend (July 2010).

Current Status

We verified a design had been developed for the Riser Project. As of August 2008, the design was complete. The Project involves the replacement of 256 UPS electrical riser panel boards on the second through fifth floors of the NCC building. The estimated cost for this project is \$9.7 million. In addition to replacement of the panel boards, there are two design options that involve the installation of additional power distribution units (PDU).¹⁴ The cost for the two additional design options range from about \$242,000 to \$327,000. Although the Project would mitigate the risk of fire, it does not resolve all risks. Since there is no isolation between the critical power feeds, any electrical mishap on any of the floors can result in outages at the Data Center. Since the earliest date of completion is Memorial Day 2010, we believe SSA needs to make this Project a higher priority because until the work is performed, the Agency remains vulnerable to an operational disruption. An NCC operational failure would hinder the Agency's ability to process tens of thousands of retirement, survivors and disability claims, as well as Social Security number verifications, possibly preventing individuals from securing employment or driver's licenses.

UPS Replacement

LM reported that the UPS service contract with the manufacturer expires in September 2012. The UPS manufacturer has warned that, at present, failure of any large component, such as transformers, cannot be repaired.¹⁵

LM Recommendation

LM recommended SSA explore three options for replacing the UPS. First, SSA should propose a maintenance contract to the current UPS vendor that extends coverage through 2014 and still costs less than the cost to replace the old equipment. Second, SSA should investigate stockpiling replacement equipment and hire sufficient maintenance personnel to maintain the existing UPS system. Third, SSA should prepare to install at least two new systems.

LM stated the third option is a “sunk cost” scenario since the new UPS system will not be needed after the new Data Center is moved. LM also stated that the Agency should

¹⁴ PDUs provide power to servers and computers.

¹⁵ During a tour of the NCC, SSA management stated the primary UPS notification system was not functioning properly and the back-up UPS notification system received false alarms/noise.

select the most economical option that provides the most reasonable mitigation of risk. LM estimated it will cost \$10 million to replace the UPS system.

In reference to the third option, LM reported "...with scheduled maintenance, these systems should provide continuous coverage. The UPS would therefore not need to be replaced until after the Data Center is moved unless the Data Center move slips past the end of 2012. However there is no reason to solidly be able to project that these systems will be able to provide continuous coverage through the 2014 move date."

Agency Response

The Agency reported it is implementing the first and second options. Specifically, it received a list of UPS replacement parts that it expects to purchase in FY 2009. While the current maintenance contract will expire in 2012, the contractor has agreed to perform maintenance through FY 2015, provided SSA purchases the recommended parts.

Further, SSA reported the third option was only necessary if the Agency did not receive funding for a new Data Center. SSA had been working with GSA to develop a prospectus¹⁶ for replacing the UPS system. It is expected replacement of the UPS system will require a lengthy shutdown of Agency operations. An estimated date or timeframe for replacing the UPS system has not yet been established.

Current Status

During our review, we verified the Agency received a list of UPS replacement parts, which cost approximately \$109,000. In addition, we reviewed the contractor's correspondence with the Agency. We confirmed the parts will be used to support an extension of the UPS maintenance contract through FY 2015. The contractor has agreed to continue training its personnel on the UPS equipment used by the Agency as long as classes are available.¹⁷ However, the contractor indicated the extension will be offered with no guarantee of performance, as there are parts that are no longer available. Functional replacements or repaired products will be supplied whenever possible. In correspondence with the Agency, the contractor reported it is the only provider of tested and reliable replacement parts, battery upgrades, and factory-supported, trained, authorized and certified service for the Agency's critical UPS equipment.

Although the Agency stated that option 3 was only necessary if funding for a new data center was not received, the Agency is assuming the risk that a major failure to the UPS will not occur between 2012 and the time it occupies a new data center.

¹⁶ GSA's annual prospectus threshold for construction, alteration and lease projects is \$2.66 million for FY 2009. The annual prospectus threshold for alterations in leased buildings is \$1.33 million for FY 2009.

¹⁷ The UPS classes referenced by the contractor are the Exide 3000 Series UPS product classes. The contractor has its own training center. LM reported the UPS system in the NCC is almost 30 years old and past the normal replacement lifecycle.

Roof Membrane and Drains

LM reported that the membrane and stone roofs above both the NCC and its Utility Building provide an environment for dirt and seeds to collect and grow into plants with extensive root systems. This condition has the potential to rupture the roof membrane and cause leaks that could damage the building and equipment housed there.

LM Recommendation

LM recommended SSA repair the roof membrane and clear the roof drains as soon as possible.

Agency Response

SSA reported GSA completed an NCC warehouse roof design in FY 2008. Also, GSA issued a Request for Proposal (RFP) in November 2008 and expects to award a contract in March 2009.

The Agency reported the NCC warehouse roof will not have stones on top. Recently, the Utility Building roof was replaced with a roof that does not have stones on top. Therefore, the Agency believes the issue of "an environment of dirt and seeds to collect" has been eliminated. In addition, SSA reported the main NCC roof was installed in 1994 and does contain stones on top. There were occasions where growth occurred on the roof. As a result of the LM study, SSA staff removed all growth, cleared all drains and increased the frequency of inspections on the roofs for early identification of possible growth. SSA reported that there currently are no leaks on the main NCC roof. The Agency believes the replacement of the NCC warehouse and Utility Building roofs and increased inspection of the main NCC roof and drains, addresses all of the issues in the LM study.

Current Status

An RFP for the NCC warehouse roof replacement was issued in May 2008, a design was completed in September 2008, and a solicitation for offer was issued in November 2008. The project objectives were to determine the cause of the existing roof leaks so they can be prevented in the future and to replace the existing roof. In addition to the roof replacement, the project included the partial removal and reinstallation of the existing lightning protection system. The estimate for replacing the NCC warehouse roof was approximately \$1 million.

We obtained a work order report that summarized the preventive maintenance activities completed from May 2002 through November 2008. We confirmed the Agency inspects the roof as part of its preventive maintenance schedule. Also, we verified the Utility Building roof was replaced in Calendar Year 2007. Further, based on our observations during a tour of the NCC building in December 2008, the trees growing on the roof illustrated in the LM study had been removed.

Lightning Protection Grid

LM reported that an inspection of the NCC and the Utility Building found that the roof lightning protection grids on both buildings were damaged. This condition existed in walkways on the NCC roof and frayed connections at the base of the cooling towers on the Utility Building roof.

LM Recommendation

LM recommended SSA repair the lightning protection grids immediately.

Agency Response

SSA reported it had completed repairs to the Utility Building roof lightning protection system and it was certified in October 2007. Also, the Agency responded that it made corrections on the NCC roof, such as tightened cables and refastened brackets at intersections, handrails, roof drains and vent piping. The lightning protection system will be reevaluated when the warehouse roof is replaced.

Current Status

We reviewed the certification letter to verify an inspection of the lightning protection system on the Utility Building was conducted on October 29, 2007. The inspection indicated the lightning protection system was compliant with applicable standards. Further, during a tour of the NCC building in December 2008, we observed some corrections the Agency had made to repair the damage to the lightning protection grid.

Additional LM Recommendations

LM made 12 additional recommendations related to the NCC. These recommendations related to the building's plumbing and foundation, new equipment power requirements, electrical distribution to equipment, asbestos encapsulation, preventive maintenance, heating ventilation and air conditioning duct conditions and replacement, renovation of existing space, physical security monitoring, emergency power off installation, and fire suppression installation. See Appendix C for a list of all LM's recommendations, the corrective actions taken or planned by the Agency, and the results of our review.

Other NCC Concerns

LM identified other issues during its study concerning electrical generation and distribution, data network infrastructure and facility storage. These issues related to lack of emergency lighting, network and power cables lying together beneath the Data Center's raised floor (making it difficult to remove any cables without damaging other cables), firewalls between floors not resealed, and a lack of storage space in the NCC.

LM did not make specific recommendations pertaining to these issues other than to recommend a permanent replacement for the NCC. Since SSA is pursuing a replacement building for the NCC, we did not follow up on these issues during our review.

LM'S VIABLE ALTERNATIVES FOR THE NCC

LM identified four alternative solutions deemed viable to resolve the Agency's long-term data processing needs.¹⁸ They are as follows.

Alternative A—Build/Lease a New NCC Data Center with Utility Infrastructure Off-Campus

LM estimated this alternative would cost approximately \$162 million. SSA has primarily focused its efforts on this alternative. For more details on this alternative, see Cost Estimates section below.

Alternative B—Lease an Existing Data Center Facility Off-Campus

LM estimated this alternative would cost approximately \$21 million in year 1 and over \$430 million through 2020. SSA and GSA worked on a prospectus for this option.

Alternative C—Build New Data Center on SSA Campus

LM estimated this alternative would cost approximately \$172 million. SSA management stated this option is not suitable because most of the land on SSA Headquarters' campus is zoned residential. According to SSA, GSA believes the process could take up to 72 months because of protests by residential neighbors surrounding the campus. Additionally, a parking garage would need to be built before the new Data Center on campus to house the displaced parking spaces.

Alternative D—Renovate the Current NCC Data Center

LM estimated this alternative would cost approximately \$260 million. SSA believed this alternative would be too costly and would require moving the current Data Center out of the NCC before it could be renovated.

LM identified the pros and cons of each alternative based on the risk to continuity of operations, timeline and cost. We reviewed the cost data associated with the alternatives and requested additional information to support the costs and underlying assumptions. We will continue to work with SSA and LM to complete our assessment. We plan to acquire a contractor to perform a detailed review of the Agency's planned Data Center replacement strategy.

COST ESTIMATES FOR NCC REPLACEMENT

SSA requested \$750 million for the facilities and equipment costs of a new Data Center. This request included \$400 million for the construction of a new building and

¹⁸ LM defined six alternatives to meet the needs of SSA. However, three alternatives were identified as the most viable solutions. Further, one alternative—*Renovate the Current NCC Data Center*—was analyzed because of the interest to fully understand the alternative's effort, cost and impact to operations. The remaining two alternatives—*Do Nothing* and *Co-Location in Existing Data Center Off-Campus*—were not considered as viable options by SSA due to the risk to continuity of operations, time, and cost.

\$350 million for IT costs.¹⁹ SSA received \$500 million for the replacement of the NCC and the associated IT costs. The Agency received an additional \$500 million for processing disability and retirement workloads, including IT acquisitions and research in support of such activities.²⁰

SSA received three cost estimates. One of the estimates was from LM. The other cost estimates were from GSA and Booz Allen Hamilton (BAH).

LM estimated approximately \$162 million for a 210,000 gross square foot Data Center. This was based largely on two rates from a 2006 Gartner survey.²¹ These rates were approximately \$873 per square foot for the raised floor and approximately \$317 per square foot for support space. This estimate included electrical, raised floor, fire protection, general construction and land. It did not include the cost for the building shell. According to SSA staff, Gartner informed the Agency the supporting documentation for these rates “has been archived and the analyst who provided the information is no longer with the company.”

Following the LM study, GSA conducted a follow-up study to obtain a more detailed square footage assessment and construction estimate for a new Data Center.²² In FY 2009, GSA issued a study.²³ GSA estimated about \$337 million for an approximately 247,000 gross square foot Data Center, 53,000 gross square foot office building and 9,200 gross square foot warehouse. GSA proposed an approximately 309,000 gross square foot facility, whereas LM proposed a 210,000 gross square foot facility. GSA’s estimate included electrical, raised floor, fire protection and construction—including the building shell. This estimate did not include land, utility infrastructure, studies or other fees, which GSA separately estimated would be approximately \$59 million. GSA estimated the total cost to construct a new Data Center, office building and warehouse was approximately \$396 million.

¹⁹ The IT cost estimate consists of server hardware, data storage, software, telecommunications, miscellaneous IT infrastructure components and contractor support.

²⁰ H.R.1, *American Recovery and Reinvestment Act of 2009* Division A – Appropriations Provisions, Title VIII—Departments of Labor, Health and Human Services, and Education, and Related Agencies. Social Security Administration Limitation on Administrative Expenses (including transfer of funds), H.R.1-71.

²¹ *Gartner Data Center Facilities Cost Survey: 2006 Update*. Gartner, Inc. is an IT research and advisory company. Gartner developed its rates by surveying four engineering/consulting firms that submitted project data. LM reported it created its cost estimates using the most recent industry research available including the 2006 Gartner survey.

²² The following agencies and firms participated in the GSA study: (1) SSA, (2) GSA Region 3, (3) Oudens Knoop Knoop + Sachs Architects (Architect), (4) HP Critical Facilities Services, delivered by EYP MCF (Data Center Expert), and (5) Project Management Services Incorporated (Cost Consultant).

²³ *Feasibility Study for the Social Security Administration National Services Center Data Center Facility*, January 16, 2009. The GSA study identified additional conditions that LM did not report related to fuel tanks and back-up power delays. We will follow up on these issues in a future review.

Subsequently, SSA engaged BAH to conduct an NCC alternatives analysis. This analysis included the four alternative solutions LM deemed viable to resolve the Agency's long-term data processing needs. On February 6, 2009, we received the BAH report from the Agency.²⁴ BAH estimated it would cost approximately \$546 million to construct a new Data Center. During a discussion with BAH representatives on February 19, 2009, we were informed the cost estimates included in their alternative analysis have been revised. However, to date, we have not received the revised report. Once we receive the revised report, we will be able to complete our analysis.

Comparison of Cost Estimates for Constructing a New Data Center Off-Campus

	SSA	LM	GSA	BAH
Building Construction		\$162,009,475	\$337,384,332	Unknown
Land, Utility Infrastructure, Studies and Other Fees	\$400,000,000	See note below table	\$58,912,972	Unknown
Subtotal	<u>\$400,000,000</u>	<u>\$162,009,475</u>	<u>\$396,297,304</u>	<u>\$546,035,592</u>
IT Costs	\$350,000,000	Not included in study	Not included in the study	Unknown
Total Estimated Costs	<u>\$750,000,000</u>	Unknown	Unknown	Unknown

Note: LM's \$162,009,475 included electrical, raised floor, fire protection, general construction and land. It did not include the building shell. We cannot determine whether other costs, such as utility infrastructure, studies and other fees, were included in LM's cost estimate due to LM's use of Gartner's 2006 rates.

We provided the above cost estimates to SSA. The Agency stated it is impossible to accurately create a cost comparison table as depicted above and recommended we not use it in this report. LM's estimate was based on data center square footage alone and did not include the office function of the building. According to SSA, LM's estimates were very preliminary and the focus of the LM study was to determine the condition of the facility and to determine if there was a need for a new data center. It was not intended to be a cost estimate. SSA added that the EYP study was a follow-on to the LM study and its purpose was to define square footage needs which were used for cost estimation purposes in the Agency's budget. Further, SSA stated that the BAH Alternative Analysis was not a construction cost estimate, was based on the EYP study cost estimates and only calculated lifecycle costs of the building for the sole purpose of determining the return on investment to the government. According to SSA, it is not a construction cost estimate and consequently is not comparable with construction estimates. Agency officials do not believe the chart above compares "apples to apples."

²⁴ SSA National Computer Center Alternatives Analysis, January 29, 2009.

We requested detailed information for the cost data included in the LM study and BAH Alternative Analysis. Although SSA has provided some information, the Agency has referred us to the contractors for additional data. We will continue to work with SSA, GSA, LM and BAH to obtain additional information as needed. Further, we will continue to analyze the cost estimates to determine whether the data is accurate, relevant and supportable. We plan to acquire a contractor to perform a detailed review of the Agency's planned Data Center replacement strategy.

Matters for Consideration

SSA's programs touch the lives of many individuals and play a significant role in the Nation's economic security. SSA's NCC houses the infrastructure that supports the Agency's programs. However, the design and age of the NCC as well as the increasing workload due to the retirement of the baby boom generation, has raised concerns about SSA's ability to address future processing requirements.

The Agency acknowledges the NCC's capacity to keep up with the increasing volumes of work, add new or expanded responsibilities, and adapt to new ways of doing business is severely limited. Further, its IT infrastructure is resting on a foundation of aging computer programs that make it increasingly difficult to implement new business processes and service delivery models unless significant updates are made. SSA must have an IT infrastructure that ensures it can effectively respond to the changing needs of the public. An NCC operational failure would hinder the Agency's ability to process tens of thousands of retirement, survivors and disability claims, as well as Social Security number verifications, possibly preventing individuals from securing employment or driver's licenses.

Our review determined that SSA had taken or planned some actions to address the NCC's sustainability through 2014 and requested funding for a replacement NCC. We have received detailed cost estimates for the construction of a new Data Center and the related IT costs. Going forward, the Agency needs to focus its efforts on detailed plans (1) to acquire, construct and operate a new Data Center; (2) of cost estimates for the use and/or disposal of the NCC should a new primary Data Center be built; and (3) for information technology requirements for the next 5, 10 and 20 years.²⁵ Further, SSA should identify the underlying factors that allowed the current NCC situation to occur and implement the necessary controls to prevent this situation from recurring in the future. We plan to evaluate these issues in future reviews.

Until SSA completes action to address the issues identified in this report, the Agency's continuity of operations remains at risk.

²⁵ In February 2009, SSA released its *Information Technology Vision 2009–2014* which included its plans for IT needs. The Agency's IT vision includes a planned timeline for implementation of IT initiatives through 2014. SSA believes this allows it to forecast needed future processing requirements in all major areas that will impact the Agency. SSA reported that it prepares information on future processing needs through the Information Technology Systems Budget process. Each year, the Agency reports it develops information 6 years into the future. The Agency believes the processes in place prepare it to meet SSA's needs. We reviewed the Agency's *IT Vision 2009–2014* and determined the document does not contain detailed cost estimates for implementing the vision. In a future review, we plan to assess whether the Agency adequately developed a comprehensive Agency Information Infrastructure Plan designed to meet potential processing needs for the next 20 years and allows the Agency to recover quickly if one or more major component of its processing infrastructure fails or is destroyed.

Appendices

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[APPENDIX D](#) – OIG Contacts and Staff Acknowledgments

Appendix A

Acronyms

ACM	Asbestos-Containing Material
BAH	Booz Allen Hamilton
BPA	Blanket Purchase Agreement
DSC	Durham Support Center
EPO	Emergency Power Off
FPE	Federal Pacific Electric
FY	Fiscal Year
GSA	General Services Administration
HVAC	Heating, Ventilation and Air Conditioning
IT	Information Technology
LM	Lockheed Martin
NCC	National Computer Center
OIG	Office of the Inspector General
PDU	Power Distribution Unit
PM	Preventive Maintenance
RFP	Request for Proposal
SSA	Social Security Administration
UPS	Uninterruptible Power Supply

Scope and Methodology

To accomplish our objective, we:

- Reviewed Lockheed Martin's *National Computer Center (NCC) Feasibility Study and Transitional Strategy and Project Management Plan*.
- Reviewed applicable Federal laws, industry standards and best practices.
- Reviewed prior Office of the Inspector General reports related to the NCC.
- Obtained and reviewed documentation to support the corrective actions planned or taken by SSA to address the significant issues identified in Lockheed Martin's study.
- Obtained and reviewed documentation to support the cost estimates for alternatives being considered to replace the NCC.
- Interviewed personnel from SSA's Offices of Facilities Management and Chief Information Officer.
- Toured the NCC facility to observe corrective actions taken by the Agency as of December 2008.

We performed our review from November 2008 through March 2009 in Baltimore, Maryland. The entities reviewed were the Offices of the Deputy Commissioner for Budget, Finance and Management and the Deputy Commissioner for Systems. We conducted our review in accordance with the President's Council on Integrity and Efficiency's *Quality Standards for Inspections*.

Appendix C

Lockheed Martin Recommendations

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
National Computer Center (NCC) Feeder Replacement Ongoing	The NCC feeder cables ¹ were identified as the most apparent single point of failure. ²	Replace the feeder cables immediately.	The Social Security Administration (SSA) awarded a contract to replace the feeder cables in September 2008. As of March 2009, the Agency reported the new feeder cables are installed, tested, energized, and in use. The contractor has until April 2009 to complete the rest of the project.	Verified a contract had been awarded to replace the feeder cables and observed temporary cables being installed.
Federal Pacific Electric (FPE) ³ Panel Replacement (Riser Project) Ongoing	The FPE panel breakers most likely will not open should an "over current" ⁴ occur.	Replace the FPE panels immediately.	General Services Administration (GSA) completed a design for the Riser Project. SSA expected GSA to award a contract by March 2009. The project is scheduled to be completed over three holiday weekends—Columbus Day (October 2009), Washington's Birthday (February 2010) and Memorial Day (May 2010). The contingency date is Independence Day weekend (July 2010).	Verified the project design was complete.

¹ Feeder cables are used to supply power to the NCC and Utility Building.

² A single-point-of-failure is a point (electrical equipment, cables, etc.) on a power system that can cause downtime if a failure or fault occurs.

³ FPE is a company that manufactured a variety of electrical equipment. During the original construction of the NCC, FPE panels and breakers were installed.

⁴ Circuit breakers cut off power when the electrical wiring has too much current flowing through it. An "over current" is a condition in an electrical circuit when the current in the circuit exceeds the rated capacity of that circuit or the equipment connected to that circuit.

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Uninterruptible Power Supply (UPS) ⁵ System Replacement Ongoing	The UPS service contract expires in September 2012. The UPS manufacturer has warned that, at present, failure of any large component cannot be repaired.	Explore three options involving (1) extending the maintenance contract; (2) stockpiling replacement equipment and hiring personnel to maintain the UPS system; and (3) installing at least two new systems.	The Agency is implementing the first and second options. Specifically, SSA received a list of UPS replacement parts which it expects to purchase in Fiscal Year (FY) 2009. The contractor has agreed to perform maintenance through FY 2015 provided SSA purchased the recommended replacement parts. The third option is only necessary if the Agency does not receive funding for a new Data Center.	Verified SSA received a list of UPS replacement parts. When purchased, these parts will be used to support an extension of the UPS maintenance contract through FY 2015.

⁵ A UPS, also known as a battery back-up system, provides emergency power to connected equipment by supplying power from a separate source when utility power is not available. The UPS consists of three parts: (1) a battery system that supplies power in the event of a power outage, (2) equipment that regulates and converts the power, and (3) a notification/control system that monitors the condition of the system and produces alerts when conditions are not "normal."

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
<p>Roof Membrane and Roof Drains</p> <p>Ongoing</p>	<p>The membrane and stone roofs above both the NCC and its Utility Building provide an environment for dirt and seeds to collect and grow into plants with extensive root systems.</p>	<p>Repair the roof membrane and clear the roof drains as soon as possible.</p>	<p>GSA completed a roof design in FY 2008. Also, GSA issued a Request for Proposal (RFP) and it expects to award a contract in March 2009. The NCC warehouse roof will not have stones on top. Also, the Utility Building roof was recently replaced with a roof that does not have stones on top. Therefore, the Agency believes the issue of "an environment of dirt and seeds to collect" has been eliminated.</p> <p>Further, SSA reported the main NCC roof was installed in 1994 and does contain stones on top. SSA staff removed all growth, cleared all drains and increased the frequency of inspections on the roofs for early identification of possible growth. Agency staff stated there are currently no leaks on the main NCC roof.</p> <p>The Agency believes the replacement of the NCC warehouse and Utility Building roofs and increased inspection of the main NCC roof and drains addresses all the issues in the LM study.</p>	<p>Verified an RFP for the NCC warehouse roof replacement was issued in May 2008, a design was completed in September 2008, and a solicitation for offer was issued in November 2008. Also, confirmed the Agency inspects the roof as part of its preventive maintenance schedule. In addition, we verified the Utility Building roof was replaced in Calendar Year 2007.</p>

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Lightning Protection Grid Ongoing	The roof lightning protection grid was damaged on the NCC and its Utility Building.	Repair the lightning protection grid immediately.	Completed repairs on the NCC and Utility Building roofs. The Utility Building roof lightning protection system was certified. The lightning protection system will be reevaluated when the warehouse roof repairs are completed.	Observed some corrections the Agency made to repair the damage to the lightning protection grid. Also verified an inspection was completed and the Utility Building roof was certified in October 2007.
Plumbing Conditions Ongoing	Corrosion of pipes, build-ups in pipes, and pipe failures in the facility were evident. This is due to an aging facility with substantially original plumbing infrastructure. Water damage is a risk and an ongoing concern due to the age of the facility.	Continue the existing building maintenance practices related to plumbing in the same manner until a major refit can be done after the Data Center is removed from the facility.	Plumbing is being managed under SSA's normal maintenance program.	Verified the Agency has continued to perform preventive maintenance on various plumbing related items, such as the manhole/sewer system, valves, pumps, filters, etc.
Foundation Conditions Ongoing	Issues related to the foundation damaged by plumbing failures have occurred.	Conduct periodic inspections of the building's foundation.	The foundation is being managed under SSA's normal maintenance program and is inspected as part of the annual building walk-around.	Confirmed the deterioration of the concrete pier discussed in LM's feasibility study had been corrected and the foundation is being inspected periodically.
New Equipment Power Requirements Ongoing	There will be a lack of electrical distribution for computer equipment connections forecasted to occur in less than 5 years from October 2007.	Maximize the use of 120 volt power supplies where possible for any new equipment ordered. In addition, all Data Center equipment purchase orders should require single phase 120 volt power for power supplies where possible.	The new blanket purchase agreement (BPA) established with Dell Computers in April 2008 for Windows servers does not include any servers that require 208 volt service. All servers on the BPA will operate on 110 volt. As older servers are replaced using equipment from the new BPA, the need for 208 volt circuits will be reduced.	Verified equipment included in the BPA will operate on 115 volts.

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Electrical Distribution Ongoing	There is a lack of available electrical distribution to add additional mechanical equipment. If additional mechanical equipment is necessary, it may not be available with the current level of distribution. Only two spare main breakers remain in the non-UPS distribution switchgear. ⁶	Increase the "trip" ⁷ size on the two spare circuit breakers and install two additional power distribution panels, if needed.	Additional power distribution panels were installed in the UPS room.	Confirmed additional power distribution panels had been installed in the UPS room. The Riser Project includes two design options which involve the installation of additional power distribution units (PDU). PDUs provide power to servers and computers.
Asbestos Encapsulation Ongoing	Multiple locations were identified where asbestos encapsulation of the steel support structure was damaged. While this is not a major structural issue to the building, this could be a long-term health issue to the facility.	If SSA agrees that the conditions pose a health risk, repair the two locations identified. Also, test a sample to determine if asbestos or other hazardous fibers exist in the fire prevention material sprayed on the steel superstructure of the NCC.	Asbestos is being managed under SSA's normal maintenance programs. The Agency does not believe an asbestos issue exists, based on the latest reinspection.	Confirmed the 2006 asbestos reinspection survey identified one asbestos-containing material (ACM). ⁸ Also, the 2007 reinspection report concluded the two previously identified ACM and one assumed ACM were in good condition and no additional suspect ACMs were identified. Observed examples of sprayed on insulation, which the Agency believes was incorrectly identified as asbestos.
NCC Facility Preventive Maintenance (PM) Ongoing	Facility maintenance practices were managed and executed in an excellent manner.	Continue to conduct PM on an ongoing basis.	SSA performs regularly scheduled PM.	Confirmed the Agency performs regular maintenance throughout the Data Center.

⁶ Switchgear is a switching/interrupting device used in connection with generation, transmission, distribution and conversion of electric power for controlling, metering, protecting and regulating devices.

⁷ Circuit breakers sense excessive current and "trip" to stop the flow of power before damage occurs. Therefore, trip size is the capacity of power that a breaker can handle before it shuts down to keep the system from overloading.

⁸ Asbestos is a term used to describe a group of six naturally occurring crystalline fiber materials. An asbestos-containing material is any material which contains more than 1 percent of asbestos.

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Heating Ventilation and Air Conditioning (HVAC) Duct Conditions Ongoing	Due to findings in previous Indoor Air Quality Reports and memorandums, there is a strong likelihood of mold in the NCC and its ductwork.	Conduct independent testing and monitoring of the HVAC duct conditions on an ongoing basis.	Regular scheduled PM is performed on all air handling equipment in the NCC and its Utility Building. SSA believes LM's conclusion was not supported by the prior report. Additionally, SSA reported it has not initiated any testing or inspection since receiving LM's Transitional Strategy and Project Management Plan. Agency management explained mold was found on the exterior insulation, not inside the ductwork. Therefore, SSA management believes LM's conclusion was not supported by the 2004 Indoor Air Quality report.	Confirmed the Agency is performing regular maintenance on HVAC equipment, including air handler units throughout the NCC. PM documentation showed a variety of tasks such as checking and cleaning equipment
NCC Renovations of Existing Space Ongoing	In about 5 years, the computer room space for servers and associated information technology (IT) hardware will be at full capacity in the current third floor IT production operations space of SSA. SSA will be unable to respond to any new government programs mandated in the future by Congress or programs requested by other agencies.	Convert NCC existing space to computer room area by 2012 to continue operational growth and upgrading through 2014. This will displace approximately 400 IT personnel and require the additional costs of moving, renovating, and renting temporary space.	SSA developed a cost estimate for this project and is working with GSA to develop a prospectus for expanding the fourth floor of the NCC building.	Verified a cost estimate for the fourth floor renovation had been prepared. At this point, a decision has not been made on the future use of the NCC.

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Physical Security Monitoring Ongoing	There are very detailed pictures on the internet of the NCC and its Utility Building, access entry points, air intake locations, and camera locations.	Monitor physical security at the NCC and its Utility Building on an ongoing basis.	The buildings can be viewed on the internet by zooming in from satellites using many different mapping tools. SSA's position is this security vulnerability cannot be prevented.	LM staff indicated two specific internet sites that display very detailed pictures of the NCC and the Utility Building.
Emergency Power Off (EPO) Installation Deferred	The NCC does not have an EPO. EPO is a safety feature intended to power down a piece of equipment or an entire installation from a single point. EPO is used in emergency situations, such as a fire or flood, to protect personnel and equipment.	Due to the time, cost, and impact to operations, the addition of an EPO system to the NCC 3rd floor computer room was not a feasible undertaking prior to the Data Center relocation. LM stated that the risk of not installing an EPO system is a safety issue mainly when fighting a fire.	SSA is not considering installing an EPO system at this time, due to the significant cost, downtime, and adjustments to power throughout the building.	We confirmed the Agency plans to defer this recommendation.
HVAC Distribution Replacement Deferred	The current HVAC equipment is 28 years old and past its expected average life span.	The equipment needs to be upgraded to a new, energy efficient design that will be suited to the NCC's future use as an office building. It would be easier and more cost effective to replace the HVAC distribution systems after the Data Center is removed.	The Agency is deferring the HVAC replacement due to cost and downtime.	We confirmed the Agency plans to defer replacing the HVAC system.

Issue and Status	Lockheed Martin (LM) Finding	LM Recommendation	Agency Response	Office of the Inspector General Review
Fire Suppression Installation Deferred	SSA's Data Center is protected from fire by a pre-action sprinkler system. ⁹ The system meets local fire codes.	Defer installation of a fire suppression system.	SSA reported that it has initiated projects to have an FM200 ¹⁰ installed within the tape storage silos located in the NCC's Data Center. SSA considered installing an FM200 to provide protection to the entire Inner Core, ¹¹ but found this to be an expensive effort.	We confirmed SSA has installed FM200 within the tape storage silos located in the Data Center. We confirmed the Agency plans to defer installation of other fire suppression systems.

⁹ Pre-action fire sprinkler systems employ the basic concept of a dry pipe system in that water is not normally contained within the pipes. The difference, however, is that water is held from piping by an electrically operated valve, known as a pre-action valve. Valve operation is controlled by independent flame, heat or smoke detection.

¹⁰ An FM200 is a gas-type fire suppression system. It is a fast-acting, waterless fire suppression system used to protect critical assets.

¹¹ The inner core is the center portion of the building that houses the computer room.

Appendix D

OIG Contacts and Staff Acknowledgments

OIG Contacts

Brian Karpe, Executive Officer, Immediate Office

Phil Rogofsky, Audit Manager, Information Technology Audit Division

Acknowledgments

In addition to those named above:

Melinda Lockhart, Auditor-in-Charge

Nicole Gordon, Auditor

Jan Kowalewski, Senior Analyst

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