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AUDIT REPORT

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PREPARING FOR THE SPACE SHUTTLE PROGRAM'S RETIREMENT:

REVIEW OF NASA'S CONTROLS OVER PUBLIC SALES OF SPACE SHUTTLE PROPERTY

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

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Acronyms

CEA	Center Export Administrator
C.F.R.	Code of Federal Regulations
EAR	Export Administration Regulations
FMR	Federal Management Regulation
FY	Fiscal Year
GSA	General Services Administration
ISS	International Space Station
ITAR	International Traffic in Arms Regulations
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
OIG	Office of Inspector General
OMB	Office of Management and Budget
PDO	Property Disposal Officer
U.S.C.	United States Code

OVERVIEW

PREPARING FOR THE SPACE SHUTTLE PROGRAM'S RETIREMENT:

REVIEW OF NASA'S CONTROLS OVER PUBLIC SALES OF SPACE SHUTTLE PROPERTY

The Issue

The Space Shuttle Program – whose first mission was flown in 1981 and whose last is scheduled for later this year – employs about 14,600 civil service and contractor personnel, occupies over 654 facilities, and includes more than 1.2 million line items of personal property.[1] NASA has been planning for the retirement of the Space Shuttle Program since 2004, and the scope of work involved is one of the largest such efforts ever undertaken by the Agency. Much of the Shuttle property will be donated to museums, schools, and other parties; transferred to other Federal agencies; or sold to the public through the General Services Administration (GSA).

To manage the disposal of this unprecedented amount of personal property, in November 2008 NASA submitted to Congress a "Space Shuttle Program Transition and Retirement Personal Property Disposition Plan." The Plan states that in disposing of Space Shuttle property NASA will follow all laws and regulations, including the Department of State's International Traffic in Arms Regulations (ITAR) and the Department of Commerce's Export Administration Regulations (EAR), which are intended to prevent unauthorized export of controlled technology. The Plan further recognizes that "[s]ome items [of Space Shuttle Program personal property] may not be able to be released from NASA to the public, or may need to be substantially modified or even destroyed to prevent release of export controlled information." Although NASA does not know with certainty how much Space Shuttle personal property is export controlled, in December 2009 the Space Shuttle Main Engine Project – just one of the many projects under the Space Shuttle Program – completed an assessment that found 93 percent of its personal property is export controlled (117,380 out of 125,981 line items). Accordingly, NASA should expect

[1] Each line item of personal property as recorded by NASA may contain multiple pieces of equipment, materials, or supplies. For example, one line of bolts may equate to dozens of bolts. Personal property includes equipment, materials, and supplies, and ranges from common parts to complex tooling and Space Shuttle Program flight hardware. Personal property excludes real property such as land and facilities that NASA owns, leases, or otherwise manages. For the purposes of this report, the terms "property" and "personal property" are used interchangeably.

that a significant amount of Space Shuttle-related property will be subject to export control laws.

Consequently, NASA must institute proper controls to prevent the improper release of NASA's export-controlled information and property. In October 2008, the Department of Justice reported that efforts to illegally obtain U.S. technology are on the rise. In fiscal years (FYs) 2007 and 2008, the Department charged 255 defendants with criminal violations of U.S. export control laws, including an indictment related to the export of Space Shuttle technology.

This audit by the NASA Office of Inspector General (OIG) reviewed NASA's controls over the disposition of Space Shuttle Program property. In particular, we focused on the vulnerabilities created when Space Shuttle property is sold to the public. During the audit, we found significant weaknesses in NASA's sanitization and disposal processes for Space Shuttle-related information technology equipment – weaknesses that put the Agency at risk of releasing sensitive information and violating Federal laws and regulations protecting such information. Because of the time-sensitive nature of these issues, we immediately reported our findings to the Agency and on December 7, 2010, publicly issued a separate report detailing those findings.[2] As part of our broader audit of the disposition of all Shuttle-related property, we also reviewed the management of funds received from the sale of Space Shuttle Program property. Because a significant amount of Space Shuttle property is located at and will be disposed of by personnel from the Kennedy and Johnson Space Centers, we conducted most of our work at these two Centers. Details of the audit's scope and methodology are included in Appendix A.

Results

NASA Risks Unauthorized Release of Export-Controlled Space Shuttle Property. We found that NASA had not fully integrated its export control and property disposition processes to reduce the risk that public sales of Space Shuttle property could result in the prohibited release of export-controlled items and technology. This occurred because the Agency did not fully recognize how the domestic sale of Space Shuttle property could result in an export. Moreover, NASA's policies do not include the internal controls necessary to fully protect export-controlled property from unauthorized release.[3]

For example, NASA's primary property disposition policy does not require property disposal personnel to ensure that:

- property marked for sale to the public has undergone an export control review;

[2] "Preparing for the Space Shuttle Program's Retirement: A Review of NASA's Procedures for the Disposition of Information Technology Equipment" (IG-11-009, December 7, 2010). Accessible online at http://oig.nasa.gov/audits/reports/FY11/IG-11-009.pdf.

[3] In particular, NASA Procedural Requirements (NPR) 2190.1, "NASA Export Control Program - Revalidated w/changes February 1, 2007."

- individuals seeking to purchase export-controlled property are not foreign persons; or
- potential buyers have not been denied export privileges by the Department of State or the Department of Commerce.[4]

The unprecedented amount of Space Shuttle property expected to flow through NASA Centers' property disposal systems in the coming years requires a heightened awareness of the risk of inappropriately releasing protected technologies. Although we did not identify any examples of unauthorized release of export-controlled Space Shuttle property, our related December 2010 report examining Agency procedures to dispose of information technology equipment found that NASA had been preparing to sell a laptop that contained information subject to ITAR restrictions. In addition, we believe opportunities exist for NASA to strengthen the relationship between the Agency's property disposition and export control processes, which could reduce the risk of unauthorized individuals gaining access to export-controlled Space Shuttle property. As a result of our audit, NASA has already begun working with GSA to improve controls over public sales of Space Shuttle property, which should help prevent unauthorized releases.

NASA Forfeited Proceeds from Sales of Space Shuttle Property. In FYs 2008 and 2009, NASA collected over $185,000 in proceeds from the sale of Space Shuttle Program property. However, due to ineffective management by the Office of the Chief Financial Officer and the Exploration Systems Mission Directorate's Resources Management Office, NASA had to forfeit the money to the U.S. Treasury rather than use it for NASA programs. Although the Office of the Chief Financial Officer issued two new Financial Management Operating Procedures to ensure that the proceeds from Space Shuttle property sales would be used to purchase replacement property by the Exploration Systems Mission Directorate, NASA did not obligate the funds within the necessary timeframe to avoid forfeiture, nor did Agency officials seek a waiver to extend this timeframe. In NASA's current budget environment, the Agency can ill afford to forgo funds available for its use. NASA received $273,095 from Space Shuttle property sold in FY 2010, and proceeds from such sales will only increase in the coming years. The Agency must improve its management of these proceeds or risk forfeiting them as well.

Other Matters of Interest. During the audit, we noted the improper sale or exchange of $28,802 of mostly non-Space Shuttle related property. The Federal Management Regulation (FMR) lists several categories of property, such as clothing and firefighting equipment, that may not be sold or exchanged unless the cognizant agency requests and receives a waiver from GSA. The FMR further states that under no circumstances will GSA grant waivers for the sale or exchange of weapons. However, we identified sales and exchanges of prohibited property without waivers at Kennedy, Johnson, and Stennis

[4] NPR 4300.1A, "NASA Personal Property Disposal Procedural Requirements (Revalidated 2/17/06 with Change 1)."

Space Centers and an exchange of weapons at the White Sands Test Facility. When we informed Agency officials, they initiated procedures to prevent prohibited items from being sold through GSA without the required waivers. As a result, we are not making any formal recommendations relating to this issue. However, we believe that NASA should monitor the sale and exchange of prohibited items and follow up on the corrective actions taken to ensure these types of transactions do not occur in the future.

Management Action

We recommended that the Assistant Administrator for Strategic Infrastructure coordinate with the Associate Administrator for International and Interagency Relations and revise NPR 4300.1A to explain how property disposition activities, including NASA's domestic property sales coordinated through GSA, can result in a violation of export control laws. In addition, the revision should require that responsible property disposal and export control personnel coordinate to ensure that export determinations are made, buyer citizenship is verified, and buyer identities are compared with lists of individuals who have been denied export privileges by the Department of State or the Department of Commerce.

Further, the Associate Administrator for International and Interagency Relations should revise NPR 2190.1 to explain how NASA's domestic sale of property may result in exports and require a review of Centers' export-controlled property disposition activities during annual Export Control Program audits. We also recommended that the Center Directors at Kennedy and Johnson clarify Center-specific property disposition and export control policies to reflect the recommended revisions to NPR 4300.1A and NPR 2190.1. Finally, we recommended that the Office of the Chief Financial Officer determine how much of the FY 2010 sales proceeds remain unobligated and proactively coordinate with the Exploration Systems Mission Directorate's Resources Management Office to make timely use of the funds.

The Assistant Administrator for Strategic Infrastructure concurred with our recommendation to work with the Office of International and Interagency Relations to revise NPR 4300.1A in a manner that will help integrate NASA's disposition and export control processes. Management's proposed actions are responsive and meet the intent of the recommendation.

Although management concurred with the recommendation to update NPR 2190.1, the comments also stated that the existing procedure is clear and recognizes that exports can occur within the United States. Management also concurred with our recommendation to update the guidance for the annual Export Control Program audit; however, the response implied that NASA's January 12, 2011, update to the guidance met the intent of the recommendation. Our recommendation is intended to more fully integrate NASA's disposition and export control processes and we believe that Agency auditors should take additional steps to track export-controlled items further into the disposition process.

Therefore, we find management's response to be inadequate and the recommendation remains unresolved.

Management concurred with the recommendations to clarify Center-level disposition and export guidance at Kennedy and Johnson, stating that the corrective action will be completed within 90 days of the Agency guidance being updated. Management's proposed actions are responsive to the intent of the recommendations.

The Office of the Chief Financial Officer concurred with the recommendation related to the forfeiture of exchange and sale proceeds and said it plans to have corrective action completed by September 30, 2011. Management's proposed actions are responsive to the intent of the recommendation. The Office of the Chief Financial Officer also requested that we revise the report by attributing the forfeiture of exchange/sale proceeds to "untimely and less-than-effective communication" instead of a "lack of knowledge of procedures." However, we disagree that the proceeds were forfeited solely due to ineffective communication and, accordingly, declined to make the requested revision.

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INTRODUCTION

Background

In January 2004, President Bush directed NASA to end the Space Shuttle Program once construction of the International Space Station (ISS) had been completed. As of February 2011, the final Space Shuttle flight is scheduled to take place in June 2011.

Retirement of the Space Shuttle Program poses a number of challenges for NASA, including the disposition of over 1.2 million associated line items of property. Originally, 500,000 of these items were expected to be used by NASA's Constellation Program and the remaining 700,000 were expected to enter the Centers' property disposal systems between fiscal years (FYs) 2010 and 2013. However, cancellation of the Constellation Program may result in a significant number of additional items entering the disposal chain.[5] As this "bow wave" of property enters their disposal systems, the Centers plan to use their standard property disposition processes, which allow for donating the property to museums, schools, or other eligible parties; transferring the property to other Federal agencies; abandoning and/or destroying the property; or selling the property to the public in partnership with the General Services Administration (GSA).

Memorandum of Agreement with GSA. GSA's mission is to streamline the administrative work of the Federal Government by performing services, such as sales of property, for agencies like NASA. GSA auctions property to the public through a GSA-hosted website that provides for competitive bidding and online payment. GSA retains a percentage of the sales proceeds as payment for its services and remits the remainder of the proceeds to the agency.

In accordance with a February 2008 Memorandum of Agreement with NASA, GSA is responsible for handling the sale of NASA property, including Space Shuttle-related property. Under the agreement, NASA receives 90 percent of the proceeds associated with the sale of Space Shuttle-related property and GSA retains 10 percent as a fee for its services.

Export Control Laws and Regulations. Disposition of all Space Shuttle property, including disposition through GSA sales, must comply with applicable laws and regulations, to include the Department of State's International Traffic in Arms Regulations (ITAR) and the Department of Commerce's Export Administration

[5] The Constellation Program was NASA's next generation human space flight program intended to achieve the goals laid out in President Bush's "Vision for U.S. Space Exploration," which was released in January 2004. In President Obama's proposed FY 2011 budget the Constellation Program was defunded, and the NASA Authorization Act of 2010 directed NASA to develop a new multipurpose crew vehicle and space launch system.

Regulations (EAR). In accordance with the Arms Export Control Act of 1976 (Public Law 94-329), ITAR governs the export of defense-related materials and makes it unlawful to transfer controlled items or technology to foreign persons without consent from the Department of State. The Export Administration Act of 1979 (Public Law 96-72) is the statutory authority for the EAR, which governs the export of commercial items, including those with potential military use. The EAR makes it unlawful for an entity such as NASA to provide EAR-controlled technology or software to foreign persons without the consent of the Department of Commerce. In addition, both the Departments of State and Commerce maintain lists of individuals who NASA should preclude from acquiring its export-controlled items.[6]

NASA generally does not make determinations regarding the export control status of its property until the property has been deemed ready for disposition. Accordingly, at this time NASA does not know with certainty how much Space Shuttle personal property is export controlled. Nevertheless, the Agency should expect that a significant amount of Shuttle property is subject to export control restrictions. For example, technology such as blueprints, plans, diagrams, engineering designs, and specifications for spacecraft systems and subsystems and all associated equipment, components, and parts are considered defense-related materials and are subject to ITAR export restrictions.[7] In addition, technology and software not related to spacecraft systems and subsystems and not subject to ITAR are subject to EAR export restrictions. As an illustration of the extent of controlled materials, the Space Shuttle Main Engine Project completed a property assessment in December 2009 in anticipation of the Space Shuttle Program's retirement and found that 93 percent of its personal property (117,380 out of 125,981 line items) is ITAR-controlled.

Federal Management Regulation. NASA must ensure that it effectively manages proceeds from sales of Space Shuttle Program personal property. The exchange/sale authority established by the Federal Management Regulation (FMR) and implemented by GSA permits an agency to exchange or sell non-excess, non-surplus personal property and apply the proceeds in whole or in part toward the acquisition of similar property.[8] The FMR states that an agency must use the proceeds for the purchase of replacement property either in the fiscal year in which the property was sold or in the following fiscal year, unless the agency seeks and obtains the necessary waiver to extend these timeframes. Otherwise, the agency loses the rights to the sale proceeds and instead must

[6] The Department of State's debarred parties list includes individuals who are barred by ITAR from participating directly or indirectly in the export of defense articles, including technical data, or furnishing of defense services for which a license or approval is required. The Department of Commerce's denied persons list includes individuals and entities that have been denied export privileges.

[7] ITAR Part 121, United States Munitions List, Category IV (Launch Vehicle) and Category XV (Spacecraft Systems and Associated Equipment).

[8] The use of funds obtained through the exchange and sale of non-excess, non-surplus property is addressed in Title 41, Code of Federal Regulations (C.F.R.), Part 102-39, "Replacement of Personal Property Pursuant to the Exchange/Sale Authority." Different regulations govern the sale of property that agencies identify as excess or surplus and proceeds from such sales must be remitted to the U.S. Treasury.

send the funds to the U.S. Treasury. NASA originally intended to use proceeds from the sale of Space Shuttle Program property to purchase new property for the Constellation Program.

Space Shuttle Program Property Disposition Plan. NASA's "Space Shuttle Program Transition and Retirement Personal Property Disposition Plan," November 2008, identifies both disposal of export-controlled property and management of funds received from the sale of property as a priority and a challenge for the Program. Specifically, the Plan states, "For disposition of Space Shuttle property, Agency-level coordination and planning is essential to ensure comprehensive asset management and . . . to achieve . . . recovery of fair market value from items offered for sale, and compliance with . . . export control requirements."

Objectives

Our overall objective was to determine whether NASA had implemented effective controls over Space Shuttle Program personal property disposition. Specifically, we reviewed:

- the vulnerabilities associated with selling Space Shuttle property to the public and
- NASA's management of sale proceeds.

We previously issued a separate report, "Preparing for the Space Shuttle Program's Retirement: A Review of NASA's Procedures for the Disposition of Information Technology Equipment" (IG-11-009, December 7, 2010), detailing the weaknesses we found in NASA's sanitization and disposal processes for Space Shuttle-related information technology equipment.

See Appendix A for details of the audit's scope and methodology, our review of internal controls, and a list of prior coverage.

NASA RISKS UNAUTHORIZED RELEASE OF EXPORT-CONTROLLED SPACE SHUTTLE PROPERTY BECAUSE EXPORT CONTROL AND PROPERTY DISPOSITION PROCESSES ARE NOT FULLY INTEGRATED

We found that NASA had not fully integrated its export control and property disposition processes to minimize the risk of public sales resulting in the transfer of export-controlled Space Shuttle property to unauthorized individuals. This occurred because the Agency did not fully recognize how domestic property sales may result in an export and, therefore, did not include in its policies the internal controls necessary to fully protect export-controlled property from unauthorized release. Although we did not identify examples of unauthorized release of export-controlled Space Shuttle property during this audit, we previously found that NASA was preparing to sell a laptop that contained ITAR-restricted information.[9] We believe that NASA must take steps to strengthen its property disposition and export control processes to reduce the risk of unauthorized access to NASA's controlled technologies.

NASA's Export Control and Property Disposal Requirements

NASA policies establish requirements, roles, and responsibilities for managing the Agency's export-controlled assets and disposal of personal property. For example, NASA's Office of International and Interagency Relations has Agency-level responsibility for the Export Control Program. NASA's Logistics Division, within the Office of Strategic Infrastructure, has Agency-level responsibility to ensure Centers comply with the Agency property disposition policy. NASA policy requires each Center Director to appoint a Center Export Administrator (CEA) to serve as the Center's resident expert on export control matters and to ensure compliance of all Center activities with U.S. export control laws and regulations. NASA policy also requires each Center Director to appoint a Property Disposal Officer (PDO) to ensure compliance with Agency property disposal requirements.

The CEA and PDO should work together to ensure that the Center disposes of export-controlled personal property in a manner that complies with Federal laws and prevents unauthorized release of controlled technology. We found that NASA's export control and property disposition processes were not sufficiently integrated to ensure that unauthorized

[9] As reported in "Preparing for the Space Shuttle Program's Retirement: A Review of NASA's Procedures for the Disposition of Information Technology Equipment" (IG-11-009, December 7, 2010), accessible at http://oig.nasa.gov/audits/reports/FY11/IG-11-009.pdf.

individuals could not purchase export-controlled Space Shuttle property. See Appendix A for a listing of applicable Agency- and Center-level requirements, policies, and procedures.

Export Control and Property Disposition Processes Were Not Fully Integrated

Federal law makes it is unlawful to transfer export-controlled property to (1) foreign persons without authority or license from the Departments of State or Commerce or (2) any person (including a U.S. citizen) who has been prohibited from receiving such property by these Departments. However, we found that NASA had not fully integrated its export control and property disposition processes to reduce the risk that export-controlled Space Shuttle property would be sold illegally. Specifically, we found that there were missed opportunities to strengthen the relationship between the export control and property disposition processes at Kennedy and Johnson Space Centers.

For example, although the PDOs at Kennedy and Johnson generally request the CEAs to review property and determine if export control restrictions apply to the property's disposition, we found that no one involved in the disposition process verified that buyers of export-controlled property were U.S. citizens. Nor did anyone compare buyer identities with the lists maintained by the Departments of State and Commerce to determine whether buyers were eligible to receive export-controlled property. Without performing such verifications, there is no way to ensure that NASA does not sell export-controlled Space Shuttle property in violation of export control laws.

In addition, although NASA's Export Control Program requires annual audits of Center-level export control activities to identify weaknesses and export control vulnerabilities, we found this process was ineffective in ensuring that export-controlled Space Shuttle property disposed of through a GSA sale was properly protected. The audits did not review the Centers' property disposition activities and processes or consider how a public sale of property may have export control implications. Annual Export Control Program audits do include thorough reviews of the Centers' overseas shipments and traditional exports, including a review to ensure that the Centers routinely check debarred parties and denied persons lists prior to shipping items. However, the audits did not include a review of the Centers' public sales of export-controlled property.

Agency- and Center-Level Policies Lacked Controls Necessary to Fully Protect Export-Controlled Property

Personnel at Kennedy and Johnson who were responsible for either export control or property management procedures told us that they believed that NASA's domestic sales of Space Shuttle Program personal property were not considered exports because they occurred within the United States and that, therefore, export control regulations were not an issue in such sales. However, NASA's definition of an export includes anything transferred to a foreign person or foreign destination by any means and originating from any location. In addition, both the ITAR and EAR specify that the sale or transfer of property to a foreign person, even when it occurs in the United States, is an export if the property is on the United States Munitions List or is otherwise protected technology or software. Therefore, domestic sales of export-controlled Space Shuttle property may constitute an export, and the sale of such property without the proper export license or approval by the Departments of State or Commerce is prohibited.

Because NASA did not fully recognize and document that the Agency's domestic sale of Space Shuttle property may result in an export, NASA's policies do not include the internal controls necessary to properly protect export-controlled Space Shuttle property sold by GSA on NASA's behalf.

Agency-Level Policies. NASA's primary Agency-level property disposition policy does not require that PDOs ensure that:

- property marked for sale to the public has undergone an export control review;
- individuals seeking to purchase export-controlled property through a GSA sale are U.S. citizens; or
- buyer identities are compared with the Department of State's debarred parties list and the Department of Commerce's denied persons list.[10]

During the audit, we learned that NASA is revising NPR 4300.1A to include a requirement that buyers of export-controlled property self-certify that they are U.S. citizens. However, NASA does not plan to require that the identities of prospective buyers be checked against the Departments of State and Commerce lists.

NASA's export control policy states that an export can occur when technical data is disclosed to a foreign national by physical, electronic, oral, or visual means within or outside of the United States.[11] However, the policy does not make clear that an export can occur as a result of a domestic sale of property through the disposition process and does not set forth procedures relating to NASA's domestic property sales.

Center-Level Policies. We identified several ways in which the Centers can strengthen their policies to prevent the unauthorized release of export-controlled property.

[10] NASA Procedural Requirements (NPR) 4300.1A, "NASA Personal Property Disposal Procedural Requirements (Revalidated 2/17/06 with Change 1)."

[11] NPR 2190.1, "NASA Export Control Program - Revalidated w/changes February 1, 2007."

Kennedy Policies. Kennedy did not finalize a Center-level property disposition policy until October 2010, 6 years after President Bush's 2004 directive to end the Space Shuttle Program upon completion of the ISS. Moreover, neither this disposition policy nor Kennedy's export control policy includes internal controls that we believe are necessary to prevent unauthorized release of export-controlled items.[12] Both policies require the CEA to review a list of property marked for disposal and identify export-controlled items. However, neither policy contains guidance regarding how any items identified by the CEA are to be disposed of in accordance with export control laws and regulations. Additionally, neither policy requires disposal or export control personnel to ensure that U.S. citizenship or buyer eligibility is verified when export-controlled property is sold through GSA.

Johnson Policies. Johnson's property disposition policy acknowledges that Center property should not be transferred, exported to a foreign national, or shipped outside of the United States without complying with all applicable export control laws and regulations. The policy also requires that export control representatives identify export-controlled property before it is declared available for sale.[13] However, the policy does not clearly explain who at the Center is responsible for requesting the export control review. Johnson's CEA attempted to identify export-controlled property by reviewing a list of property scheduled for disposition. Although the CEA was able to determine from the list whether the property was subject to export control under the ITAR or EAR, the CEA stated that he could not always make a recommendation about the property's suitability for release, transfer, export, or sale to a foreign person because the property listing did not contain the necessary level of detail.

Johnson's export compliance policy does not address how domestic sales of property may result in an export or clearly state when in the disposition process a determination of whether property is subject to export control should be made.[14] Inherent in the policy is the assumption that, to effect an export, property would be exported overseas. Moreover, like Kennedy's policies, Johnson's policies do not require disposal personnel, in coordination with the CEA, to ensure that buyers' citizenship or eligibility to purchase export-controlled property is verified in accordance with the ITAR and EAR.

[12] "Kennedy Space Center Personal Property Transfer/Excess Process," KDP-KSC-P-3716, October 13, 2010; "KSC Export Control Process," KDP-KSC-P-2613, June 30, 2010.

[13] Johnson Space Center Work Instruction 4300.1, "JSC Instructions for Excess and Disposal of Government Property," September 28, 2009.

[14] Johnson Space Center Work Instruction 2190.1, "JSC Export Compliance," June 26, 2009.

NASA Faces Increased Risk of Unauthorized Release of Controlled Space Shuttle Technology

As the "bow wave" of more than a million line items of property from the retirement of the Space Shuttle Program enters the Agency's disposal systems, any weaknesses in NASA's internal controls relating to property disposal and export control may provide opportunities for unauthorized access to NASA's controlled technology.

NASA's need to dispose of this large amount of property coincides with increases in attempts by countries like China and Iran to illegally acquire U.S. technology. The Department of Justice reported that in FYs 2007 and 2008 it had charged 110 and 145 defendants, respectively, with criminal violations of U.S. export control laws, including some charges related to the illegal export of Space Shuttle technology.[15] The Department of Justice noted that controlled technology was most often collected and sold to the highest bidder by foreign business people, scientists, and students who only began their illegal activities once they came to the United States and found that they had ready access to the technology in demand overseas.

Although we did not identify examples of unauthorized release of export-controlled Space Shuttle property through a public GSA sale, we believe there is an increased risk that NASA's controlled technologies may be obtained by unauthorized individuals given the weaknesses we identified in NASA policies.

Management Actions

As a result of our audit, NASA began working with GSA to ensure that the online purchasing system GSA uses to publicly sell export-controlled Space Shuttle property will require buyers to provide citizenship information and certify at the point of purchase that export control laws and regulations are understood and will be followed. GSA is working with the Department of Homeland Security to develop a process to verify citizenship information provided by buyers before each online property purchase is completed. In March 2011, GSA's Director, Sales Program Division, told us that by the end of June 2011 GSA expects to have access to the Department of Homeland Security's database needed for such verifications.

While NASA management's prompt action and the planned improvements to GSA's online purchasing system are steps in the right direction, we believe that NASA could further reduce the risk that controlled personal property will be improperly exported by requiring a check of the debarred parties list maintained by the Department of State and the denied persons list maintained by the Department of Commerce.

[15] Department of Justice Press Release 08-958: "More Than 145 Defendants Charged in National Export Enforcement Initiative During Past Fiscal Year," October 28, 2008.

Recommendations, Management's Response, and Evaluation of Management's Response

To fully integrate NASA's property disposition and export control processes and reduce the risk of improperly selling export-controlled property to the public, we made the following recommendations.

Recommendation 1.a. The Assistant Administrator for Strategic Infrastructure should coordinate with the Associate Administrator for International and Interagency Relations and include in the planned revision of NPR 4300.1A a clear explanation of how NASA's property disposition activities, including domestic property sales, could result in a violation of export control laws.

Recommendation 1.b. The Assistant Administrator for Strategic Infrastructure should coordinate with the Associate Administrator for International and Interagency Relations and include in the planned revision of NPR 4300.1A requirements that responsible property disposal and export control personnel ensure that export control determinations are made before property is disposed of and that the eligibility of potential buyers is verified prior to releasing controlled items to them. At a minimum, verifying buyer eligibility should include verifying citizenship and comparing identities with both the Department of State's debarred parties list and the Department of Commerce's denied persons list prior to the sale of export-controlled property.

Management's Response. The Assistant Administrator for Strategic Infrastructure concurred with the recommendation and agreed to work with the Office of International and Interagency Relations to revise NPR 4300.1A by highlighting the implications of inadvertently releasing export-controlled Government property to unauthorized individuals or entities and by clearly explaining the potential risk. NPR 4300.1A is currently under revision, and the Assistant Administrator for Strategic Infrastructure expects the revision to be completed by mid-March 2011; however, it will have to undergo a formal review process and likely will not be finalized until early in the fourth quarter of FY 2011. The Assistant Administrator for Strategic Infrastructure also stated that NASA surrenders to GSA its authority to determine the final disposition of Government property when NASA reports the property as Agency excess. Further, the Assistant Administrator stated that the process for vetting property for sale ultimately resides with GSA because GSA controls the sale of property. As such, the Office of Strategic Infrastructure is working with GSA to ensure that GSA's online purchasing system has the capability to verify citizenship and compare buyer identities to the denied and debarred parties lists maintained by the Departments of State and Commerce, respectively. GSA is coordinating with the Department of Homeland Security to add this functionality to the online purchasing system, and the current schedule calls for implementation of these protocols by the third quarter of FY 2011. Until GSA's online purchasing system has that capability, NASA Centers will be responsible for ensuring that the lists are reviewed prior to the release of property to the buyer.

Evaluation of Management's Response. Although the Assistant Administrator for Strategic Infrastructure stated that NASA surrenders its authority to determine the final disposition of Government property when the property is reported to GSA as excess, NASA remains the responsible party for ensuring that buyers of property are not foreign persons according to ITAR, EAR, and NASA regulations. However, we consider management's proposal to work with GSA to reduce the risk that export-controlled Government property is released to unauthorized individuals or entities to be responsive to the intent of our recommendation. Accordingly, the recommendation is resolved and will be closed upon completion and verification of the proposed corrective actions.

Recommendation 2. The Associate Administrator for International and Interagency Relations should revise NPR 2190.1 to explain how NASA's domestic sales of property may result in exports and to require a review of Centers' export-controlled property disposition activities during annual Export Control Program audits.

Management's Response. Management concurred with the recommendation, but asserted that NASA Policy Directive (NPD) 2190 and NPR 2190.1 already clearly state that transfers of export-controlled hardware or data to foreign persons anywhere, including in the United States, require export authority. Management's comments also noted that the Office of International and Interagency Relations recently revised NPR 2190.1 to inform NASA program and project managers that they should (1) consult with the Headquarters Export Administrator and their Center Export Administrator to determine the export classification of items and (2) document that information in applicable property accountability records. The revised NPR 2190.1 should begin the formal review process by March 30, 2011. In addition, on January 12, 2011, the Office of International and Interagency Relations updated the guidance for the annual Export Control Program audit to require Export Control Program auditors to verify that Center Export Administrators and Center Export Representatives are consulted to determine the export control classification of NASA property to be disposed.

Evaluation of Management's Response. We do not find management's comments fully responsive to the intent of the recommendation. Although we agree that NPD 2190 and NPR 2190.1 clearly state that an export can occur within the United States, the intent of the recommendation is to more fully integrate NASA's property disposition and export control processes. NASA is currently revising NPR 2190.1 and plans to begin the formal review process by the end of March. We believe that including in the planned revision an explanation of how an export can occur during the property disposition process will help more fully integrate the export control and property disposition processes. Similar to the agreed-upon revision to NPR 4300.1A, the revision to NPR 2190.1 should highlight the implications of inadvertently releasing export-controlled Government property to unauthorized individuals or entities and should clearly explain the potential risk.

In addition, we acknowledge that having Center Export Administrators and Center Export Representatives identify export-controlled property prior to disposition is a good first step. However, we believe that NASA Export Control Program annual audits should include additional steps to test controls over the disposition of the items that were identified as export-controlled by responsible export control personnel. The additional steps should help ensure that unauthorized individuals or entities are unable to acquire NASA export-controlled property during public sales. For these reasons, we consider this recommendation unresolved.

Recommendation 3. The Director, Kennedy Space Center, should clarify KDP-KSC-P-3716 and KDP-KSC-P-2613 to reflect the recommended revisions to NPR 4300.1A and NPR 2190.1.

Management's Response. Management concurred with the recommendation and stated that KDP-KSC-P-3716 and KDP-KSC-P-2613 will be clarified to reflect the changes to NPR 4300.1A and NPR 2190.1 within 90 days of their release.

Evaluation of Management's Response. Management's proposed actions are responsive. The recommendation is resolved and will be closed upon completion and verification of management's corrective actions.

Recommendation 4. The Director, Johnson Space Center, should clarify Johnson Space Center Work Instruction 4300.1 and Johnson Space Center Work Instruction 2190.1 to reflect the recommended revisions to NPR 4300.1A and NPR 2190.1.

Management's Response. Management concurred with the recommendation and stated that Johnson Space Center Work Instruction 4300.1 and Johnson Space Center Work Instruction 2190.1 will be clarified to reflect the changes to NPR 4300.1A and NPR 2190.1 within 90 days of their release.

Evaluation of Management's Response. Management's proposed actions are responsive. The recommendation is resolved and will be closed upon completion and verification of management's corrective actions.

NASA FORFEITED PROCEEDS FROM SALES OF SPACE SHUTTLE PROPERTY

In FYs 2008 and 2009, NASA collected $185,718 in proceeds from the sale of Space Shuttle Program personal property. However, due to a lack of knowledge of procedures and ineffective management of the funds by the Office of the Chief Financial Officer and the Exploration Systems Mission Directorate's Resources Management Office, NASA had to forfeit these funds to the U.S. Treasury instead of using them for NASA programs. NASA received $273,095 in proceeds from Space Shuttle property sold in FY 2010 and has until the end of FY 2011 to use these funds or to obtain a waiver permitting their use beyond that date.

NASA's Use of the Exchange/Sale Authority

As previously discussed, the FMR, implemented and administered by GSA, establishes the authority for agencies to exchange or sell non-excess, non-surplus property and apply the proceeds in whole or in part toward the acquisition of similar property. In accordance with the provisions of the FMR, NASA was required to use the proceeds from GSA sales of Space Shuttle personal property to purchase replacement property either in the fiscal year in which the property was sold or in the following fiscal year, unless the Agency sought and obtained from GSA a waiver to this requirement. Otherwise, the Agency would lose the rights to the proceeds and would be required to send the funds to the U.S. Treasury. NASA's intention was to use proceeds from sales of Space Shuttle property to purchase new property for the Constellation Program.

To assist NASA's financial management community with managing the proceeds from GSA sales of Space Shuttle property and to ensure standard and consistent methods of processing, reporting, and reviewing financial data, NASA's Financial Management Division wrote and published two Financial Management Operating Procedures specifically for Space Shuttle Program exchange/sales:

- NASA Financial Management Operating Procedure 9250.1-P01-A, "Exchange Sales of Space Shuttle Program Property Prior to October 1, 2009," August 7, 2009; and

- NASA Financial Management Operating Procedure 9250.1-P02-A, "Exchange Sales of Space Shuttle Program Property," October 1, 2009.

The new procedures notwithstanding, NASA did not make timely use of the sales proceeds and had to forfeit to the U.S. Treasury 100 percent of the proceeds collected in FYs 2008 and 2009 (see Table 1 for proceeds by fiscal year).

NASA Forfeited Exchange/Sale Proceeds to the U.S. Treasury

Instead of using the proceeds from the sale of Space Shuttle Program property to offset costs of the Constellation Program as it had intended, NASA forfeited the $185,718 it obtained in FYs 2008 and 2009 as a result of sales conducted at Kennedy, Johnson, Marshall Space Flight Center, and Stennis Space Center. NASA has until the end of FY 2011 either to use the $273,095 in proceeds from sales that took place during FY 2010 or to obtain a waiver permitting their use beyond that date.

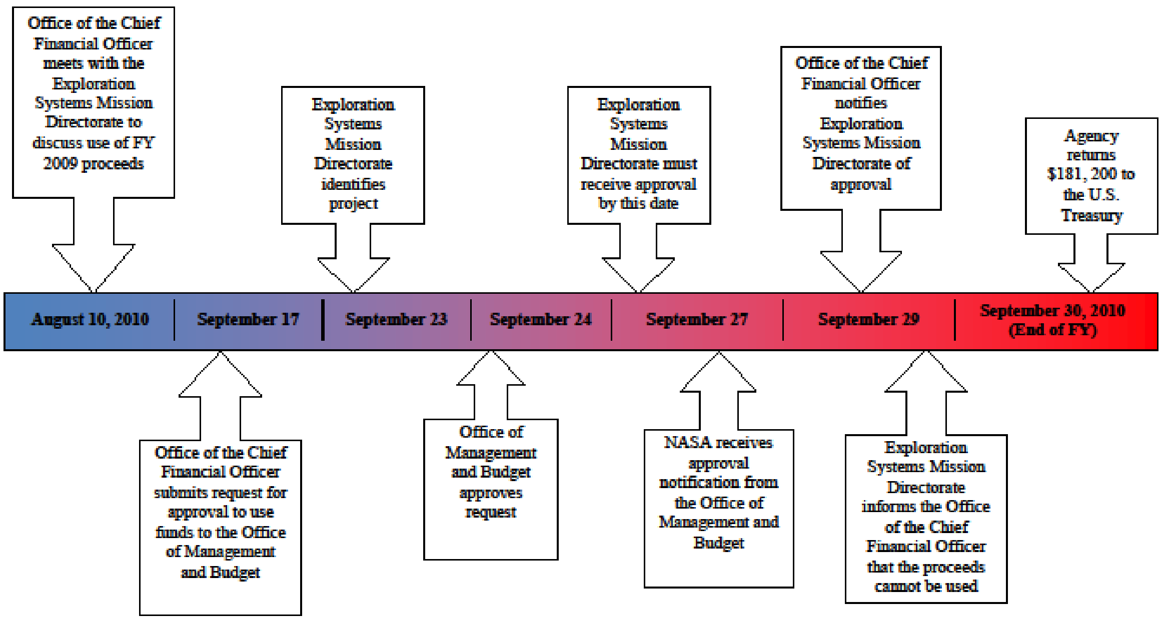
Table 1. Space Shuttle Program Exchange/Sale Proceeds

Center	FY 2008	FY 2009	FY 2010	Total
Kennedy	$4,518	$ 94,174	$ 55,995	$ 154,687
Johnson	0	72,280	195,233	267,513
Marshall	0	14,466	17,605	32,071
Stennis	0	280	4,262	4,542
Total	$4,518	$181,200	$273,095	$458,813

Kennedy was the first Center to conduct a Space Shuttle Program exchange/sale and collected $4,518 in FY 2008. As stipulated in the FMR, NASA had to either obligate these funds by the end of FY 2009, seek a waiver from GSA, or forfeit the funds to the U.S. Treasury. Because the funds had not yet been obligated toward the acquisition of similar property within the Constellation Program and NASA did not seek the necessary waiver, just prior to the end of FY 2009, the Office of the Chief Financial Officer informed Kennedy's finance office that the proceeds from FY 2008 could not be used. As a result, Kennedy transferred the funds to miscellaneous receipts and ultimately forfeited the $4,518 to the U.S. Treasury at the end of FY 2009.

Kennedy, Johnson, Marshall, and Stennis conducted Space Shuttle Program exchange/sales in FY 2009. In order to retain these funds, NASA had to either obligate the proceeds from these sales by the end of FY 2010 or seek a waiver from GSA. Just prior to the end of FY 2010, the Office of the Chief Financial Officer and Exploration Systems Mission Directorate's Resource Managements Office attempted to coordinate and quickly obligate the proceeds. However, their efforts were unsuccessful, a waiver was not pursued, and, ultimately, the funds were forfeited to the U.S. Treasury at the end of FY 2010 (see the following timeline).

Timeline for Using
FY 2009 Exchange/Sale Proceeds



Management of Exchange/Sale Proceeds Was Ineffective

A lack of knowledge of procedures and the ineffective management of the proceeds by the Office of the Chief Financial Officer and the Exploration Systems Mission Directorate's Resources Management Office resulted in NASA forfeiting Space Shuttle Program exchange/sale proceeds for two consecutive years.

As shown in the timeline, the Office of the Chief Financial Officer met with the Exploration Systems Mission Directorate on August 10, 2010, to begin discussing the use of the FY 2009 Space Shuttle Program exchange/sale proceeds. The Office of the Chief Financial Officer realized that those proceeds had not been included in the annual "Apportionment and Reapportionment Schedule" (Standard Form 132) submitted to the Office of Management and Budget (OMB). On September 17, 2010, less than 2 weeks from the end of the fiscal year, the Office of the Chief Financial Officer submitted an additional Standard Form 132 to OMB, requesting approval to use the $181,200 in FY 2009 proceeds. In accordance with OMB Circular No. A-11, "Preparation, Submission, and Execution of the Budget," July 2010, agencies, including NASA, must submit a Standard Form 132 to OMB by August 21 of each fiscal year or within 10 calendar days after the approval of the appropriation, whichever is later, to provide an estimate of the amount of proceeds the agency expects to make from the exchange/sale of property in the upcoming fiscal year. Once the form is approved by OMB, agencies can record the estimated amounts in their accounting systems. When the actual proceeds are received, the estimates are adjusted accordingly. NASA did not add the amount of the proceeds collected in FY 2009 to the estimate of what would be collected in FY 2010 and, therefore, this amount was not appropriated for use in FY 2010. This resulted in NASA having to submit an additional Standard Form 132 just weeks before the end of the fiscal year. OMB approved the request on September 24, 2010, and NASA received the approval notification the following Monday (September 27, 2010), just 3 days before the end of the fiscal year.

Concurrently with the Office of the Chief Financial Officer's efforts to secure OMB approval to obligate the sale proceeds, the Exploration Systems Mission Directorate's Resources Management Office tried to identify a need for the funds within the Constellation Program. With exactly 1 week left in the fiscal year, the Exploration Systems Mission Directorate's Resources Management Office identified a Constellation project to which the money could be obligated. However, although the Office of the Chief Financial Officer learned of OMB approval on September 27, it did not notify the Exploration Systems Mission Directorate's Resources Management Office of the approval until 2 days later, on September 29, 2010. By then it was too late to receive, record, and distribute the proceeds before September 30, 2010, the end of the fiscal year.

Further, NASA's Office of the Chief Financial Officer was unaware that it could have requested GSA to grant a waiver to the 2-year constraint on using exchange/sale proceeds. Had NASA requested and GSA approved a waiver, NASA could have retained the Space Shuttle Program exchange/sale proceeds from FYs 2008 and 2009 and used them toward the Constellation Program instead of having to forfeit the proceeds to the U.S. Treasury.

Action Is Needed to Avoid Forfeiture of Additional Proceeds

NASA expended time and effort to establish and conduct GSA sales of Space Shuttle property. However, NASA failed to effectively manage FYs 2008 and 2009 proceeds to ensure they were used to meet NASA program needs. Although the Office of the Chief Financial Officer published two new Financial Management Operating Procedures to ensure proper management of GSA sales proceeds, it failed to disseminate or properly implement the procedures. The procedures include detailed guidance on the collection, accounting, use, and reporting of exchange/sale proceeds. Specifically, they discuss the funds and accounts that need to be established and used throughout the accounting process, as well as information on organizational responsibilities and a timetable of when certain tasks should be completed. The new procedures also include a section on periodic monitoring and internal controls.

In NASA's current budget environment, the use of the exchange/sale authority is a valuable tool for offsetting the cost of replacing Agency property. NASA received $273,095 in proceeds from Space Shuttle property sold in FY 2010. The Agency must improve its coordination, awareness, and management of these and future proceeds, which will likely increase as Space Shuttle retirement nears, or risk forfeiture of the FY 2010 funds and future funds as well.

Recommendations, Management's Response, and Evaluation of Management's Response

To avoid forfeiture of FY 2010 Space Shuttle Program exchange/sale proceeds, we made the following recommendations.

Recommendation 5.a. The Office of the Chief Financial Officer should determine how much of the FY 2010 proceeds remain unobligated.

Recommendations 5.b. The Office of the Chief Financial Officer should proactively coordinate with the Exploration Systems Mission Directorate's Resources Management Office to make timely use of the funds in accordance with the relevant Financial Management Operating Procedures or, if necessary, request that GSA extend the time period during which NASA may make use of the funds.

Management's Response. The Office of the Chief Financial Officer concurred with the recommendation and plans to have corrective action completed by September 30, 2011. The Office of the Chief Financial Officer also requested that we change the report by attributing the forfeiture of exchange/sale proceeds to "untimely and less-than-effective communication" instead of a "lack of knowledge of procedures."

Evaluation of Management's Response. Management's proposed actions are responsive to the intent of the recommendation. The recommendation is resolved and will be closed upon completion and verification of management's corrective actions. Although we agree that there were instances of ineffective communication when the exchange/sale proceeds were forfeited, we also believe the facts discussed in the report support our conclusion that the overall process was managed ineffectively. Therefore, we do not believe that exchange/sale proceeds were forfeited solely as a result of ineffective communication and, accordingly, have not revised the report language.

OTHER MATTERS OF INTEREST

NASA Improperly Sold Property under Exchange/Sale Authority

NASA entered into the February 2008 Memorandum of Agreement with GSA to sell Space Shuttle personal property pursuant to the exchange/sale authority in the United States Code (U.S.C.) and the FMR.[16] However, under this authority, certain personal property is not eligible for exchange or sale. Specifically, agencies are prohibited from engaging in sales or exchanges of clothing and firefighting equipment unless they receive a waiver from GSA. In addition, they are prohibited from engaging in the sale or exchange of weapons, and no waiver process is available for such transactions.

Our records review disclosed that NASA sold or exchanged personal property worth $28,802 in the following three prohibited categories: Clothing, Individual Equipment, and Insignia; Firefighting, Rescue, and Safety Equipment; and Weapons (as shown in Table 2).

Table 2. Summary of Prohibited Exchanges and Sales in FY 2009

Center	Category	Transaction	Amount
Johnson	Clothing	Sale	$ 96
Stennis	Firefighting Equipment	Sale	6,806
Kennedy	Firefighting Equipment	Exchange	1,500
White Sands	Weapons	Exchange	20,400
Total			$28,802

The PDO at Johnson sold $96 in clothing items without obtaining a waiver from GSA. The proceeds from that sale were included in the proceeds forfeited to the U.S. Treasury at the end of FY 2010. At Stennis Space Center, the PDO sold $6,806 worth of firefighting, rescue, and safety equipment in FY 2009 without obtaining a waiver from GSA. In July 2010, the PDO sent the proceeds to the U.S. Treasury after receiving notification from the NASA Headquarters Logistics Division that an ineligible sale occurred. Kennedy also exchanged $1,500 worth of firefighting, rescue, and safety equipment in FY 2009 without obtaining a waiver from GSA.

[16] Exchange/sale means to exchange or sell non-excess, non-surplus personal property and apply the exchange allowance or proceeds of sale in whole or in part payment for the acquisition of similar property (40 U.S.C. 503, “Exchange or Sale of Similar Items,” and 41 C.F.R. 102-39, “Replacement of Personal Property Pursuant to the Exchange/Sale Authority.”)

In addition, the White Sands Test Facility Supply Equipment Management Officer issued a procurement action with a gun dealer to exchange 68 handguns to offset the cost of new weapons for the White Sands Security Office. The procurement action totaled $30,630 and the trade allowance was $20,400, which left White Sands to pay $10,230. However, the FMR specifically states that “under no circumstances will deviations be granted for FSC [Federal Supply Category] Class 1005, Guns through 30mm [millimeter].” The handguns that White Sands exchanged fall into this class. According to NASA’s Disposal and Warehouse Program Manager, it was apparent the White Sands’ Supply Officer was not aware that weapons were ineligible for exchange.

Management Actions. We informed Agency officials of the sales and exchanges that occurred without the necessary waivers from GSA, as well as the prohibited exchange of the White Sands weapons. The responsible NASA personnel acknowledged that the exchange/sales did not comply with the FMR and initiated corrective actions. Specifically, the Agency’s Disposal and Warehousing Program Manager took the following steps:

- Sent an e-mail to Agency PDOs reminding them that exchange/sale authority is prohibited for certain listed groups of property unless NASA obtains a waiver and informing them that all waiver requests are to be sent to the Logistics Division for review and concurrence prior to submission to GSA for its approval.
- Contacted the system designer at NASA’s Enterprise Applications Competency Center to develop a system override that will allow items requiring a waiver to be listed in exchange/sales when a GSA waiver has been obtained.
- Met with the GSA Sales Director to discuss alterations to GSA’s Sales Automated System to prevent items from being sold without a waiver when one is required.

We agree that the actions discussed above should reduce NASA’s risk of engaging in transactions that do not comply with the FMR. To ensure that these types of transactions do not occur in the future, we believe that NASA should continue to monitor the sale/exchange of prohibited items and follow up on the implementation of the corrective actions.

APPENDIX A

Scope and Methodology

We performed this audit from October 2009 through February 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our overall audit objective was to determine whether NASA implemented effective controls over Space Shuttle Program personal property disposition. Initially, we focused our review on Kennedy's personal property disposition processes. We interviewed key NASA Headquarters and Kennedy personnel involved in the Space Shuttle Program transition and retirement and/or the personal property disposition processes. We identified and reviewed relevant federal laws and regulations, NASA policies, procedures, plans, and guidance, and other criteria (a detailed list of items reviewed is provided on the following pages). We also reviewed relevant NASA websites for additional records and information, such as transition property assessments, status briefings, plans, reviews, and meeting charts and minutes. Based on our review at Kennedy, we expanded our scope to include Johnson. The methodology we used for the review is described below.

Compliance with Export Control Regulations. At both Kennedy and Johnson, we interviewed the CEAs regarding roles and responsibilities and Center processes for making export control determinations, Center property disposal officers, industrial property managers, legal counsel, and personnel at the property disposal facilities. We interviewed a GSA sales representative regarding procedures used by that agency regarding export control. At Johnson, we also interviewed several property custodians and the Center security chief.

Exchange/Sales through GSA. We reviewed the Memorandum of Agreement between NASA and GSA for the disposal of Space Shuttle Program personal property. At Kennedy and Johnson, we interviewed the Center PDOs, industrial property clearance specialists, and accounting managers. We also interviewed NASA Headquarters Logistics Division officials and GSA officials involved in the exchange/sales process. We reviewed Center sales records and reconciliations and traced a few sale items through the process from the time the items became available for sale to the time they were picked up by the purchaser. We also reviewed NASA records relating to sales proceeds and attempted to reconcile them to monthly sales reports.

OIG Legal Counsel. To determine (1) whether selling to a foreign national in the United States is considered an export, (2) whether NASA or GSA is responsible for ensuring buyers are not foreign nationals, and (3) what the potential effect is of NASA selling prohibited items during an exchange/sale without receiving a waiver from GSA, we obtained a legal opinion from the Office of Counsel to the Inspector General. The OIG legal staff reviewed pertinent case laws, applicable federal and Agency regulations, and applicable workpapers.

We identified and reviewed the following as applicable to our audit objectives:

Federal Laws, Regulations, Policies, and Guidance

Federal Property and Administrative Services Act of 1949 (Public Law 63-385, June 30, 1949), as amended

OMB Circular A-11, "Preparation, Submission, and Execution of the Budget," July 2010

NASA Federal Acquisition Regulation Supplement:

- Part 1804, "Administrative Matters"
- Part 1852, "Solicitation Provisions and Contract Clauses"

FMR:

- 41 C.F.R. 102-36, "Disposition of Excess Personal Property"
- 41 C.F.R. 102-38, "Sale of Personal Property"
- 41 C.F.R. 102-39, "Replacement of Personal Property Pursuant to the Exchange/Sale Authority"
- 22 C.F.R. 120-130, ITAR
- 15 C.F.R. 730-774, EAR

U.S.C.:

- 31 U.S.C. 1341, "Limitations on Expending and Obligating Amounts"
- 31 U.S.C. 3302, "Custodians of Money"
- 40 U.S.C. 503, "Exchange or Sale of Similar Items"
- 40 U.S.C. 571, "General Rules for Deposit and Use of Proceeds"

NASA Policies and Procedures

NPD 1000.0A, "NASA Governance and Strategic Management Handbook," August 13, 2008

NPR 2190.1, "NASA Export Control Program - Revalidated w/changes February 1, 2007"

NPR 4100.1D, "NASA Materials Inventory Management Manual, (Revalidated 2/9/06)"

NPR 4200.1G, "NASA Equipment Management Procedural Requirements," March 30, 2010

NPD 4300.1B, "NASA Personal Property Disposal Policy (Revalidated 1/31/06)"

NPR 4300.1A, "NASA Personal Property Disposal Procedural Requirements (Revalidated 2/17/06 with Change 1)"

NPR 4310.1, "Identification and Disposition of NASA Artifacts (Revalidated w/Change 2 1/31/06)"

NPR 9250.1, "Property, Plant, and Equipment and Operating Materials and Supplies," September 30, 2008

NASA Interim Directive applicable to NPR 4300.1A, NM 4300-67, September 4, 2008

NASA Financial Management Operating Procedure 9250.1-P01-A, "Exchange Sales of Space Shuttle Program Property Prior to October 1, 2009," August 7, 2009

NASA Financial Management Operating Procedure 9250.1-P02-A, "Exchange Sales of Space Shuttle Program Property," October 1, 2009

NASA Headquarters Transition Plans and Guidance

JICB-001, "NASA Transition Management Plan For Implementing the U.S. Space Exploration Policy," NASA Exploration Systems Mission Directorate and Space Operations Mission Directorate, August 2008

"Space Shuttle Program Transition and Retirement Personal Property Disposition Plan," November 2008

iTCB-001, "NASA Infrastructure Transition Implementation Plan," NASA Office of Infrastructure, June 2009

Various whitepapers on Space Shuttle Program personal property disposition issues, Logistics Division, NASA Office of Infrastructure, 2008 and 2009

“Space Shuttle Program Artifacts,” Information Pamphlet, NP-2009-02-565-HQ, NASA Headquarters, August 28, 2009

Agreement between NASA and the Smithsonian Institution Concerning the Transfer and Management of NASA Historical Artifacts, August 20, 2008

Procurement Information Circular 09-02, “Deviation and Special Property Disposition Instructions for Space Shuttle Related Contracts,” NASA Office of Procurement, January 14, 2009

NASA Space Shuttle Program Plans and Requirements

“Space Shuttle Program Plan,” Space Shuttle Program, April 4, 2008

NSTS 07700, Volume XX (Revision A), “Space Shuttle Transition and Retirement Requirements,” Johnson Space Center, September 10, 2001

NSTS 60576 (Change 1), “Space Shuttle Program Transition Management Plan,” Johnson Space Center, November 8, 2007

NASA Center Transition Plans

JSC-63921 (Revision A), “Johnson Space Center Transition Management Plan,” Johnson Space Center, January 2008

KSC-PLN-1727 (Revision A-2), “Shuttle Processing Transition Management Plan, Launch Vehicle Processing Directorate,” Kennedy Space Center, September 7, 2009

IMSB-Plan-JICB-001, “Marshall Space Flight Center Transition Plan,” Marshall Space Flight Center, December 1, 2008

NASA Center and Contractor Procedures, Instructions, and Other Directives

“Kennedy Space Center Personal Property Transfer/Excess Process,” KDP-KSC-P-3716, October 13, 2010

“KSC Export Control Process,” KDP-KSC-P-2613, June 30, 2010

Johnson Space Center Work Instruction 4300.1, “JSC Instructions for Excess and Disposal of Government Property,” September 28, 2009

Johnson Space Center Work Instruction 2190.1, “JSC Export Compliance,” June 26, 2009

L&M Technologies Procedure 6004, “Reutilization and Disposal,” July 27, 2009

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

Review of Internal Controls

We reviewed internal controls for NASA's personal property disposition processes relating to protection of export-controlled technology, receipt and use of sales proceeds, and sanitization of excessed information technology equipment. The control weaknesses we identified are discussed in this report and the previously issued report on information technology disposition issues (IG-11-009). Our recommendations, if implemented, will correct the identified control weaknesses.

Prior Coverage

In December 2010, the NASA OIG issued a related report, and during the last 5 years, the Government Accountability Office (GAO) has issued two reports of particular relevance to the subject of this report. Unrestricted reports can be accessed over the Internet at http://oig.nasa.gov/audits/reports/FY11 and http://www.gao.gov.

NASA Office of Inspector General

"Preparing for the Space Shuttle Program's Retirement: A Review of NASA's Procedures for the Disposition of Information Technology Equipment" (IG-11-009, December 7, 2010)

Government Accountability Office

"NASA: Agency Faces Challenges Defining Scope and Costs of Space Shuttle Transition and Retirement" (GAO-08-1096, September 2008)

"Property Management: Lack of Accountability and Weak Internal Controls Leave NASA Equipment Vulnerable to Loss, Theft, and Misuse" (GAO-07-432, June 2007)

MANAGEMENT COMMENTS

National Aeronautics and
Space Administration
Headquarters
Washington, DC 20546-0001

March 7, 2011

Reply to Attn of: Office of Strategic Infrastructure

TO: Assistant Inspector General for Audits

FROM: Assistant Administrator for Strategic Infrastructure

SUBJECT: OIG Draft Report, "Preparing for the Space Shuttle Program's Retirement: Review of NASA's Controls over Public Sales of Space Shuttle Property" (Assignment No. A-09-018-00)

The Office of Strategic Infrastructure (OSI) appreciates the opportunity to review and provide comments on the subject draft report dated February 10, 2011. In the draft report, the Office of Inspector General (OIG) makes a total of five recommendations, with one each addressed to the Chief Financial Officer, Associate Administrator for International and Interagency Relations, Assistant Administrator for Strategic Infrastructure, the Director of the Johnson Space Center, and the Director of the Kennedy Space Center, respectively. NASA's response to the OIG's recommendations, including planned corrective actions and projected completion dates in regard to those planned corrective actions, follows:

Recommendation 1: The Assistant Administrator for Strategic Infrastructure coordinate with the Associate Administrator for International and Interagency Relations and include in the planned revision of NPR 4300.1A, NASA Personal Property Disposal Procedural Requirements (Revalidated 2/17/06 with Change 1):

a. A clear explanation of how NASA's property disposition activities, including domestic property sales, could result in a violation of export control laws.

b. Requirements that responsible property disposal and export control personnel ensure that export control determinations are made before property is disposed of and that the eligibility of potential buyers is verified prior to releasing controlled items to them. At a minimum, verifying buyer eligibility should include verifying citizenship and comparing identities with both the Department of State's debarred parties list and the Department of Commerce's denied persons list prior to the sale of export-controlled property.

Management's Response: Concur. The Office of Strategic Infrastructure (OSI), Logistics Management Division (LMD) concurs with Recommendation 1(a) and will add language to the existing guidance for disposition of controlled property in NPR 4300, NASA Personal

Property Disposal Procedural Requirements, highlighting the implications of the inadvertent release of controlled Government property to improper individuals or entities. In addition, the guidance will be revised to require Property Disposal Officers to report the status of controlled property, when that information is received from the program official and the Center Export Administrator (CEA), to the General Services Administration (GSA) so that they may appropriately screen potential purchasers of the property.

OSI also fully concurs with the OIG's Recommendation 1(b) that the individuals who obtain property from the Government should be properly vetted. However, NASA surrenders its authority to determine the final disposition of Government property when it is reported to the GSA as agency excess. As a result, we believe that the vetting process will ultimately reside with the GSA, who controls the sale of the property and serves as the Government's sales contracting officer. At the same time, we recognize the need to minimize risk and, as a result, OSI/LMD will continue to work with the GSA to refine our Memorandum of Agreement to emphasize the need for appropriate vetting of buyers when they discharge their duties as Government property sales agents. Our office is working with GSA to ensure that the online purchasing system GSA uses to publicly sell export-controlled Space Shuttle property will require buyers to provide citizenship information and certify at the point of bidding that export control laws and regulations are understood and will be followed.

GSA is working with the Department of Homeland Security to develop a process to verify citizenship information provided by buyers before each online property purchase is completed. The current schedule for incorporation of this enhancement calls for implementation by the third quarter of FY11. Additionally, NASA will further reduce the risk that controlled personal property will be improperly exported by requiring a check of the debarred parties list maintained by the Department of State and the denied persons list maintained by the Department of Commerce. Until GSA's system is established that automatically checks these systems, NASA Centers will be responsible for ensuring the review of these lists prior to the release of the property to the buyer.

The Office of International and Interagency Relations (OIIR) will support the Office of Strategic Infrastructure's revision of NPR 4300.1A, NASA Personal Property Disposal Procedural Requirements. A clear explanation of the potential risk of diversion of export-controlled property during property sales will be incorporated into the NPR.

Planned Corrective Action Date: NPR 4300.1A will be revised and interim policy guidance provided no later than mid-March 2011. This policy guidance will be shared with all Property Disposal Officers and Senior Logistics Managers in March 2011; however, the formal policy review process into the NASA on-line Directive System (NODIS), although executed immediately, will likely not be finalized until early fourth quarter of Fiscal Year 2011.

Recommendation 2: The Associate Administrator for International and Interagency Relations revise NPR 2190.1, NASA Export Control Program - Revalidated w/changes February 1, 2007, to explain how NASA's domestic sales of property may result in exports and to require a review of Centers' export-controlled property disposition activities during annual export control program audits.

Management's Response: Concur. NPD 2190 and NPR 2190.1, NASA's Export Control Program, are already clear that transfers to foreign persons anywhere -- including in the United States -- of export-controlled hardware or data require export authority either in the form of a license or exemption or exception. In a revision to NPR 2190.1, OIIR has added language in sections 2.5.2 and 2.10 indicating that NASA program and project managers should consult with the Headquarters Export Administrator (HEA)/Center Export Administrator (CEA) to determine the export classification of items and should document that information in applicable property accountability records. OIIR anticipates having the revised NPR in NODIS by March 30, 2011.

In the January 12, 2011, annual audit guidance memorandum of the NASA Export Control Program, OIIR added a requirement to verify that CEAs and Center Export Control Representatives (CERs) are consulted to determine the export-control classification of NASA property to be disposed.

Planned Corrective Action Date: NPR 2190.1 will be revised, and interim policy guidance will be provided no later than April 29, 2011. The formal policy review process into the NASA Online Directives System (NODIS), although executed in March 2011, will likely not be finalized until early fourth quarter of Fiscal Year 2011.

Recommendation 3: The Director, Kennedy Space Center, clarify "Kennedy Space Center Personal Property Transfer/Excess Process," KDP-KSC-P-3716, and "KSC Export Control Process," KDP-KSC-P-2613, to reflect the recommended revisions to NPR 4300.1A and NPR 2190.1.

Management's Response: Concur. Kennedy Space Center (KSC) Center Operations will clarify Center procedures KDP-KSC-P-3716 and KDP-KSC-P-2613 to reflect changes to Agency Directives NPR 4300.1A and NPR 2190.1.

Planned Corrective Action Date: To be completed 90 days after official release of Agency directives.

Recommendation 4: The Director, Johnson Space Center, clarify Johnson Space Center Work Instruction 4300.1, "JSC Instructions for Excess and Disposal of Government Property," September 28, 2009, and Johnson Space Center Work Instruction 2190.1, "JSC Export Compliance," June 26, 2009, to reflect the recommended revisions to NPR 4300.1A and NPR 2190.1.

Management's Response: Concur. When revisions are made to the Agency policy documents, as discussed in Recommendations 1 and 2, the Johnson Space Center Work Instructions will be clarified to reflect those changes.

Planned Corrective Action Date: We anticipate completion of this clarification to the JSC work documents within 90 days following revision to the NASA policy documents.

Recommendation 5: To avoid forfeiture of FY 2010 Space Shuttle Program exchange/sale process funds, we recommend that the Office of the Chief Financial Officer:

a. Determine how much of the FY 2010 proceeds remain unobligated, and;

b. Proactively coordinate with the Exploration Systems Mission Directorate's Resource Management Office to make timely use of the funds in accordance with the relevant Financial Management Operating Procedures or, if necessary, request that the General Services Administration extend the time period during which NASA may make use of the funds.

Management's Response: The Office of the Chief Financial Officer (OCFO) concurs with the OIG's recommendation and is implementing the action as stated.

Planned Corrective Action Date: The OCFO plans to have corrective action completed by September 30, 2011.

Other Matters

In the technical comments provided by the OCFO, we request that the issue related to the forfeiture of exchange/sale proceeds be attributed to untimely and less-than-effective communication, rather than lack of knowledge of procedures. We believe it was the ineffective communication between NASA offices that resulted in the failure to fully utilize exchange/sale proceeds to meet NASA's program needs. The OCFO still does not agree with the characterization that the forfeiture of exchange/sale proceeds occurred due to lack of knowledge of procedures and ineffective management and requests the following modifications be made to the report:

> Page 12 section heading states: "Management of Exchange/Sale Proceeds Was Ineffective." We again request this be noted as ". . . due to ineffective communication between OCFO and Exploration Systems Mission Directorate (ESMD) . . ." which more appropriately reflects the cause of the returned funding.
>
> Page 12 further states: "A lack of knowledge of procedures and the ineffective management of the proceeds by…." We again request this be noted as "ineffective communication between the OCFO and ESMD," which more appropriately reflects the cause of the returned funding.

In addition to the above responses to the recommendations outlined in the draft report, we have also provided technical comments to the draft report, including proposed revisions and/or corrections of factual inaccuracies, etc. Our technical comments to the draft report were provided to the OIG via e-mail on January 14, 2011, and January 20, 2011, in order to facilitate the OIG's technical correction process. For purposes of completeness, we have also included our technical comments in the enclosure to this response.

Again, we appreciate the opportunity to provide a written response to the subject draft audit report, as well as the courtesies extended to the OSI and other offices by the OIG during the

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course of the audit. If any additional information regarding our response is required, please contact Fatima Johnson, Executive Officer, at 202-358-1631.

Olga Dominguez

Enclosure

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