

**AUDIT  
REPORT**

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**CONFIGURATION CONTROLS IN  
DESKTOP OUTSOURCING**

**September 29, 2000**

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National Aeronautics and  
Space Administration

**OFFICE OF INSPECTOR GENERAL**

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### **Acronyms**

CIO	Chief Information Officer
IT	Information Technology
JPL	Jet Propulsion Laboratory
ODIN	Outsourcing Desktop Initiative for NASA

W

September 29, 2000

TO: A/Administrator

FROM: W/Inspector General

SUBJECT: INFORMATION: Configuration Controls in Desktop Outsourcing  
Report Number IG-00-060

The NASA Office of Inspector General has completed an audit of NASA's configuration controls in desktop outsourcing. We found that the desktop seat<sup>1</sup> prices at the Jet Propulsion Laboratory (JPL) significantly exceeded those paid by other NASA installations using the Outsourcing Desktop Initiative for NASA (ODIN) contract. Because the JPL outsourcing contract was based on adequate price competition, we did not question the basis of JPL's desktop seat prices. However, if JPL uses the ODIN contract to acquire desktop services after its current contract expires, NASA could avoid costs of as much as \$33 million over a 3-year period. We also found that NASA had not assessed the effectiveness of the installation-wide<sup>2</sup> or installation-component<sup>3</sup> approaches used by the installations in making desktop seat assignments and had not issued guidance for determining seat selections. Accordingly, NASA lacks assurance that it has assigned seats to employees in the most efficient and effective manner.

## **Background**

In 1996, NASA chartered the ODIN to develop an outsourcing arrangement that provides support for the majority of NASA's desktop and intra-installation communication systems. In 1998, NASA awarded a master ODIN contract to seven companies. Each NASA installation or Enterprise<sup>4</sup> may select any one of the seven companies to provide desktop, server, and intra-installation communication services. Also in 1998, JPL awarded a separate outsourcing contract to acquire similar services.

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<sup>1</sup> A seat is the hardware, software, and maintenance required to support the user of one desktop computer.

<sup>2</sup> Installations specify one or more desktop seats as the standard seat(s) for all installation employees.

<sup>3</sup> Managers in various organizational components assign seats to the installation employees.

<sup>4</sup> NASA established four strategic Enterprises, each covering a major area of the Agency's research and development efforts. The Enterprises are: Aerospace Technology, Earth Science, Human Exploration and Development of Space, and Space Science. NASA is creating a fifth Enterprise, Fundamental Space Research, from elements under the Human Exploration and Development of Space Enterprise.

## **Recommendations**

We recommended that the Associate Administrator for Space Science ensure that JPL includes ODIN among competitors when awarding the installation's future desktop outsourcing contract. NASA could avoid significant costs if ODIN is included among competitors for JPL's next outsourcing contract. We also recommended that the NASA Chief Information Officer (CIO) direct the ODIN Program manager to assess the effectiveness of the two seat assignment approaches and to issue guidance to all installations for use in selecting an appropriate approach. The assessment and guidance will help ensure effective and efficient seat assignments.

## **Management Response and OIG Evaluation**

Management concurred with the findings and recommendations. The Associate Administrator for Space Science agreed that JPL should consider ODIN among competitors for future desktop outsourcing and has obtained JPL's commitment to including ODIN in the next competition. Management stated it was unable to comment on the estimated \$33 million of funds that could be put to better use. Also, the NASA CIO has directed the ODIN Program Manager to assess the effectiveness of the seat assignment approaches and to develop a guidance document that installations may use for determining their seat selection approach.

Although management agreed to consider ODIN among competitors for future desktop outsourcing, management did not explain why it could not comment on the \$33 million of funds that could be put to better use. Therefore, we request that management comment on the potential monetary benefits in response to the final report.

Details on the status of the recommendations are in the Findings section of the report.

### **[Original signed by]**

Roberta L. Gross

Enclosure

Final Report on Audit of Configuration Controls  
in Desktop Outsourcing

**FINAL REPORT**  
**AUDIT OF CONFIGURATION CONTROLS IN**  
**DESKTOP OUTSOURCING**

W

September 29, 2000

TO: S/Associate Administrator for Space Science  
AO/Chief Information Officer

FROM: Assistant Inspector General for Auditing

SUBJECT: Final Report on Audit of Configuration Controls in  
Desktop Outsourcing  
Assignment Number A0000800  
Report Number IG-00-060

The subject final report is provided for your information and use. Please refer to the Executive Summary for the overall audit results. Our evaluation of your response is incorporated into the body of the report. Your comments on a draft of this report were responsive; however, we request that management provide comments on the potential monetary benefits in response to the final report. For recommendation 2, we request that you notify us of the actions taken, including the extent of testing performed to ensure corrective actions are effective. The recommendations will remain open for reporting purposes.

If you have questions concerning the report, please contact Mr. David L. Gandrud, Program Director, Information Technology Program Audits, at (650) 604-2672, or Mr. Roger Flann, Program Manager, at (818) 354-9755. We appreciate the courtesies extended to the audit staff. The final report distribution is in Appendix G.

**[Original signed by]**

Russell A. Rau

Enclosure

cc:

B/Chief Financial Officer

B/Comptroller

BF/Director, Financial Management Division

G/General Counsel

JM/Acting Director, Management Assessment Division

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# NASA Office of Inspector General

IG-00-060  
A0000800

September 29, 2000

## Configuration Controls in Desktop Outsourcing

### Executive Summary

**Background.** NASA chartered the Outsourcing Desktop Initiative for NASA ODIN in December 1996 to develop an outsourcing arrangement that provides support for the majority of NASA's desktop and intra-installation communication systems. One of the ODIN objectives was to facilitate management of information technology resources.

In 1998, NASA awarded to seven companies a master ODIN contract with a total estimated value of at least \$4 billion over 9 years.<sup>5</sup> Each NASA installation or Enterprise may select any one of the seven contractors to provide desktop, server, and intra-installation communication services. The contractors will provide the services on a per seat basis. Also in 1998, the JPL, a Federally funded Research and Development Center managed by NASA through a contract with the California Institute of Technology, awarded a separate 5-year, \$110 million contract to acquire desktop and network services.

**Objective.** Our overall audit objective was to determine whether NASA installations were effectively and efficiently meeting their employees' desktop seat configuration requirements. Specifically, our objective was to determine whether installations were assigning desktop seat configurations according to employee work requirements and whether contractors were providing appropriate seat configurations. Details on our scope and methodology are in Appendix A.

**Results of Audit.** Based on work performed at four NASA installations, we found no indications that the reviewed installations had assigned seats that failed to satisfy employee work requirements. Also, we found no indications that contractors had provided inappropriate seat configurations. However, we identified two outsourcing issues:

- JPL's seat prices significantly exceeded those paid by other NASA installations using the ODIN contract. If JPL uses the ODIN contract to acquire desktop services after its current contract expires, NASA could avoid costs of as much as \$33 million over a 3-year period.

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<sup>5</sup> The ODIN master contract's period of performance is June 22, 1998, through June 21, 2007. The period of performance of each delivery order shall not exceed 3 years; the delivery order may be renewed on a sole-source basis.

- NASA installations used either an installation-wide approach or an installation-component approach in assigning seats to their employees. For the installation-wide approach, installations specified one or more desktop seats as the standard seat(s) for all installation employees. For the installation-component approach, managers in various organizational components assigned seats to the installation employees. Though either approach may satisfy employee work requirements, NASA had not assessed the effectiveness of the two seat assignment approaches or issued guidance for determining seat selections. Without such an assessment, NASA lacks assurance that it has assigned seats in the most efficient and effective manner.

**Recommendations.** The Associate Administrator for Space Science should ensure that JPL includes ODIN among competitors. Also, the NASA CIO should direct the ODIN Program Manager to assess the effectiveness of the two seat assignment approaches and issue guidance to all installations for use in selecting an appropriate seat assignment approach.

**Management's Response.** Management concurred with both recommendations. The Associate Administrator for Space Science has obtained JPL's commitment to consider ODIN among competitors for future desktop outsourcing. Management stated that it was unable to comment on the estimated \$33 million of funds that could be put to better use. Also, the NASA CIO has directed the ODIN Program Manager to assess the effectiveness of the seat assignment approaches and to develop a guidance document that installations may use for determining their seat selection approach. The complete text of management's response is in Appendix F.

**Evaluation of Management's Response.** The actions taken or planned by management are responsive to the recommendations. However, we ask that management comment on the \$33 million in potential monetary benefits in response to the final report. The recommendations will remain undispositioned and open pending completion of the planned actions.

## Introduction

ODIN contractors are responsible for providing and managing the majority of NASA's desktop, server, and communications assets and services. With respect to desktop computing, the ODIN contractors shall provide services to NASA employees on a "per seat" basis. Seats include the following components:

- Hardware and software, installation, and maintenance.
- System administration, relocation, and network access.
- Customer support and training.

NASA managers can assign employees any one of six desktop seats identified in the ODIN master contract: General Purpose (GP) 1, 2, and 3 and Scientific and Engineering (SE) 1, 2, and 3. The various desktop seats differ by hardware features including processor speed, hard disk storage and memory, and monthly seat prices. Seat prices are fixed for the 3-year delivery order period.

As of June 2000, NASA Headquarters and five installations<sup>6</sup> had awarded delivery orders for desktop, server, and communications services. Four installations<sup>7</sup> plan to award delivery orders during August through November 2000.

On February 11, 1998, about 4 months before NASA awarded the master ODIN contract, JPL awarded a separate 5-year desktop outsourcing contract (see Appendix D) with a total value of \$110 million. Similar to the ODIN contractors, the JPL contractor is responsible for providing JPL employees with desktop seats that include hardware, software, and service support. The contractor bills JPL monthly on a per seat basis.

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<sup>6</sup> The installations are Goddard Space Flight Center (Goddard), John F. Kennedy Space Center (Kennedy), Lyndon B. Johnson Space Center (Johnson), George C. Marshall Space Flight Center (Marshall), and John C. Stennis Space Center (Stennis).

<sup>7</sup> The installations are Ames Research Center (Ames), Dryden Flight Research Center (Dryden), John H. Glenn Research Center (Glenn), and Langley Research Center (Langley).

## **Findings and Recommendations**

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### **Finding A. Desktop Seat Prices at JPL**

The monthly seat prices of JPL's outsourced desktop seats are significantly higher than comparable desktop seats at the installations covered by ODIN. We do not question the basis for the higher monthly seat prices because JPL awarded its contract based on adequate price competition. Nonetheless, NASA may be able to put significant funds to better use if JPL uses ODIN after the installation's current desktop outsourcing contract expires in 2002. Funds that could be put to better use over the 3-year life of an ODIN delivery order could total as much as \$33 million.

### **Management Controls**

The Clinger-Cohen Act of 1996 gives the authority to acquire information technology<sup>8</sup> (IT) resources to each executive agency and makes each agency responsible for effectively managing its IT acquisitions. Under the Act, the head of each executive agency shall design and implement a process for maximizing the value and assessing and managing the risks of the IT acquisitions. Management assessments of various outsourcing alternatives (for example, ODIN or non-ODIN sources) would represent one form of management control for achieving maximum value from IT acquisitions. JPL's desktop outsourcing contract involves a significant IT acquisition and, therefore, NASA should assure that JPL assesses whether ODIN is the most cost-effective alternative for desktop outsourcing.

### **Comparison of Desktop Seat Prices**

We performed two comparisons related to seat prices. First, we compared the actual average seat prices at JPL with the (weighted<sup>9</sup>) actual average seat prices at Goddard, Johnson, Kennedy, and Marshall (see Appendix B). The comparison showed that JPL is paying about \$11 million, or 78 percent, more per year under its current contract than other installations are paying for ODIN desktop services, or about \$33 million more over a 3-year ODIN delivery order period. Second, we compared two similar desktop seat configurations, one from JPL and the configuration of the installations covered by ODIN (see Appendix C). The two desktop seats had similar hardware and software. Notwithstanding their similarities, JPL's seat price (\$273 per month) was about 60 percent higher than the ODIN seat price (\$171 per month).

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<sup>8</sup> The term "information technology" includes computers, software, services, and related resources.

<sup>9</sup> The weighted average cost equals the total invoice costs of all desktop seats at Goddard, Johnson, Kennedy, and Marshall divided by the total number of desktop seats at those same installations.

Most of the difference in the seat prices is attributed to JPL's higher service support cost. Specifically, JPL's service support cost per seat was \$140, and the other installations' average service support cost per seat was \$49. The difference per seat (\$91) totals about \$8.1 million annually.<sup>10</sup> The substantial difference between the JPL and the other installations' service support costs is not warranted based on the level of services provided by JPL's outsourcing contractor. To illustrate, the JPL contract provides a help desk that is available 24 hours per day, 7 days per week. The ODIN help desks are available 12 hours per day (6:00 a.m. to 6:00 p.m.), 5 days per week. Notwithstanding the additional hours of service provided by the JPL help desk, typically, only one contractor employee staffs the help desk during swing, night, weekend, and holiday shifts. The annual cost of this one employee would account for only a small fraction of the total \$8.1 million annual difference between JPL's and the other installations' support service costs.

To determine whether other factors contributed to the substantially higher seat prices at JPL, we compared seat specifications and dates of award for JPL and the other installations (see Appendix C). We found no differences that would materially contribute to the higher seat prices at JPL. Specifically, both the JPL and ODIN outsourcing contractors offered desktop seats with essentially the same computer hardware (550 megahertz Intel-based processor), software (standard application suites), and hardware refresh period (3 years).<sup>11</sup> Additionally, JPL awarded its desktop outsourcing contract only 8 months before NASA awarded its first ODIN delivery order<sup>12</sup> and, therefore, the time difference would have a minimal effect on seat pricing levels.

The Deputy Manager, Institutional Computing and Information Services Office, JPL, offered no explanation for the significantly higher desktop seat prices at JPL. He told us that JPL had awarded the outsourcing contract based on adequate price competition. In this regard, our review of the contract files showed that four vendors had submitted proposals to JPL for the outsourcing contract. JPL asked two of the four vendors to perform due diligence reviews. After JPL completed its analysis of the two vendors' due diligence reviews, JPL awarded the desktop outsourcing contract to one of the two vendors. We reviewed relevant JPL documents and confirmed that JPL had awarded the outsourcing contract based on adequate competition.

NASA may be able to put significant funds to better use if JPL uses ODIN after JPL's current outsourcing contract expires in December 2002. NASA would be able to use the funds for other programs.

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<sup>10</sup> We calculated the total annual difference of \$8.1 million as follows:  $(\$140 - \$49) \times 12 \text{ months} \times 7,413 \text{ seats} = \$8,094,996$ .

<sup>11</sup> The hardware refresh period is the length of time that the computer (furnished by the contractor as part of the desktop seat) will be used before the contractor replaces it with a new computer. Replacement typically occurs every 3 years.

<sup>12</sup> JPL awarded its outsourcing contract in February 1998, and Goddard awarded its ODIN delivery order in October 1998.

## **Recommendation, Management's Response, and Evaluation of Response**

- 1. The Associate Administrator for Space Science should ensure that JPL includes ODIN among competitors for future desktop outsourcing.**

**Management's Response.** Concur. Management agreed that JPL should consider ODIN among competitors for future desktop outsourcing and has obtained JPL's commitment to including ODIN in the next competition. Management stated that it was unable to comment on the report's \$33.6 million of funds that could be put to better use. The full text of management's response is in Appendix F.

**Evaluation of Management's Response.** Management's action is responsive to the recommendation. However, we request that management provide comments on the \$33.6 million that can be put to better use in response to the final report. The recommendation will remain open for reporting purposes.

## **Finding B. ODIN Desktop Seat Assignment Approaches**

NASA installations have used either an installation-wide or installation-component approach in selecting ODIN desktop seats for their employees. Though either approach may satisfy employee work requirements, the ODIN Program Office had not assessed the merits of the two approaches or issued guidance on their use. The two approaches resulted from the installations' discretion in making seat assignment decisions. Without an assessment of the two approaches and appropriate guidance, NASA lacks assurance that it has assigned seats in the most efficient and effective manner.

### **Management Controls**

The Clinger-Cohen Act of 1996 gives each executive agency the authority to acquire IT resources and makes each agency responsible for effectively managing them. Effective IT management requires that the agency implement management controls to ensure the appropriate acquisition and use of IT resources. With respect to ODIN, management controls are necessary because ODIN involves a significant acquisition of IT resources. Management assessments represent one form of management control and can be used to ensure that the ODIN program acquires and manages desktop computing resources in the most cost-effective manner.

### **Assignment of Desktop Seats to Employees**

The NASA CIO has delegated overall ODIN program responsibility to the ODIN Program Office at Goddard. In turn, the ODIN Program Office delegated the seat assignment responsibility to the installations. The installations then used either an installation-wide or installation-component approach in meeting their seat assignment responsibilities. Each approach is discussed below.

- **Installation-wide approach.** Johnson, Marshall, and Kennedy used the installation-wide approach in assigning ODIN desktop seats to their employees. Each of the installations had specified one or more desktop seats as the standard seat(s) for all installation employees. (The installations may allow employees to use other seat configurations if the employees' special work requirements justify a deviation from the standard seats.) Based on their analyses of employees' desktop computing needs, the installation CIO's concluded that the installation-wide approach was appropriate and satisfied the employees' work requirements.
- **Installation-component approach.** Goddard used the installation-component approach in assigning ODIN desktop seats to its employees. Specifically, the installation delegated the seat assignment responsibility to managers (such as directors, division chiefs, and branch chiefs) in various organizational components. The ODIN Project Manager at Goddard stated that Goddard used

this approach because it believed the employees' managers were most knowledgeable of employee work requirements. Accordingly, the managers were best qualified to select their employees' seats.

The ODIN Program Manager has not assessed the relative merits of each approach the installations used to manage their desktop resources. A management assessment would identify advantages and disadvantages of each seat assignment approach and would give the ODIN Program Manager a basis for developing guidance for installations' use. Installations could use the guidance for either initial or follow-on delivery orders.

## **Recommendation, Management's Response, and Evaluation of Response**

- 2. The NASA CIO should direct the ODIN Program Manager to assess the effectiveness of the two seat assignment approaches and to issue guidance to all installations for their use in making appropriate seat assignments.**

**Management's Response.** Concur. The NASA CIO has directed the ODIN Program Manager to assess the effectiveness of the seat assignment approaches and to develop a guidance document that the installations may use for determining their seat selection approach (see Appendix F). The NASA CIO stated that he would issue the guidance document by March 31, 2001.

**Evaluation of Management's Response.** Management's actions are responsive to the recommendation. However, the recommendation will remain undispositioned and open pending issuance of the guidance document.



## Appendix A. Objective, Scope, and Methodology

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### Objective

Our overall audit objective was to determine whether NASA installations were effectively and efficiently meeting their employees' desktop seat configuration requirements. Specifically, we determined whether:

- installations were assigning desktop seat configurations according to employee work requirements; and
- contractors were providing appropriate seat configurations.

### Scope and Methodology

We performed work at Goddard, Johnson, Marshall, Kennedy, and JPL. Specifically, we:

- Reviewed the ODIN master contract and the JPL desktop outsourcing contract to understand the terms and conditions of these contracts relative to the announced audit objectives.
- Interviewed the Agencywide ODIN Program Manager to understand the role of the ODIN Program Office in determining the desktop seat configuration requirements of NASA employees.
- Interviewed NASA officials at the five NASA installations to identify the policies and procedures for assigning desktop seats to employees.
- Selected a judgmental sample of 75 ODIN seats at Johnson and Goddard. The sample seats represented 42 organizations. We then interviewed cognizant managers to determine their justifications for seat assignments.
- Analyzed the results of the judgmental sample to determine the propriety of the seat assignment process.
- Reviewed JPL's process of awarding the desktop outsourcing contract to identify causes for the high desktop seat prices at JPL and to determine whether the installation had awarded the contract based on adequate price competition.
- Compared JPL's average actual desktop seat costs to weighted<sup>13</sup> average actual desktop seat costs at Goddard, Johnson, Kennedy, and Marshall, to determine the reasonableness of JPL's desktop seat costs.
- Compared two similar desktop seats, one seat from JPL and another seat that was common to Johnson, Kennedy, and Marshall, to determine the reasonableness of JPL's desktop seat costs. We selected these three installations because each used the same ODIN contractor and ODIN catalog.

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<sup>13</sup> The weighted average cost equals the total invoice costs of all desktop seats at Goddard, Johnson, Kennedy, and Marshall divided by the total number of desktop seats at those same installations.

## **Appendix A**

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### **Management Controls Reviewed**

We reviewed management controls relating to JPL's desktop seat prices (see Finding A). Though we found these management controls adequate, the Associate Administrator for Space Science should ensure that JPL assesses whether ODIN is the most cost-effective alternative for JPL's next desktop outsourcing contract. We also reviewed management controls relating to NASA's organizational structure for implementing the ODIN program. We considered management controls to be adequate. However, NASA had not assessed the merits of the two desktop seat assignment approaches (see Finding B).

### **Audit Field Work**

We performed the audit field work from October 1999 through July 2000 at Goddard, Johnson, Kennedy, Marshall, and JPL. We conducted the audit in accordance with generally accepted government auditing standards.

## Appendix B. Calculation of Potential Funds That Could Be Put to Better Use

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Recommendation 1 results in a potential \$33.6 million that NASA can put to better use as shown in the calculation below. We made the calculation based on contractor invoices for October 1999.

	<u>JPL</u>	<u>Marshall</u>	<u>Kennedy</u>	<u>Johnson</u>	<u>Goddard</u>	<u>All Four ODIN Centers</u>
Total number of desktop seats	3,398	7,065	3,460	10,530	3,258	24,313
Total monthly invoice cost for all seats	\$976,673	\$1,272,119	\$569,371	\$1,674,443	\$389,597	\$3,905,530
Average actual seat price per month	\$287	\$180	\$165	\$159	\$120	\$161

The amount of potential funds that can be available for other use is based on the 7,413 desktop seats that JPL was using in October 1999 (3,398 seats were outsourced to the contractor and 4,015 were Government-owned). We used the 7,413 seats for our calculation because they represent the total number of desktop seats that JPL would eventually outsource.

Average actual seat price per month at JPL	\$287
Average actual seat price (weighted <sup>1</sup> ) per month at the four installations covered by ODIN	<u>\$161</u>
JPL monthly seat price in excess of the ODIN monthly seat price	\$126
Potential monthly funds available for other use if JPL uses ODIN (\$126 x 7,413 seats)	\$934,038
Potential annual funds available for other use use if JPL uses ODIN (\$934,038 x 12 months)	\$11,208,456
Potential funds available for other use over a 3-year delivery order period <sup>2</sup> if JPL uses ODIN after JPL's current outsourcing contract expires (\$11,208,456 x 3 years).	\$33,625,368 <sup>3</sup>

<sup>1</sup>We computed the weighted average cost of desktop seats by dividing the total invoice costs of all desktop seats at Goddard, Johnson, Kennedy, and Marshall by the total number of desktop seats for the four installations.

<sup>2</sup>The 3-year delivery order period would be January 2003 through December 2005.

<sup>3</sup>We based the \$33,625,368 of potential funds available for other use on the assumption that JPL's desktop seat prices and the number of seats for the 3-year delivery order period will be the same as the current seat prices and seat quantity.

**Appendix C. Comparison of Similar JPL and ODIN Desktop Seats  
(Based on Contractors' Product Catalogs as of October 1999)**

<b>Feature</b>	<b>JPL</b>	<b>ODIN Installations</b>	<b>Difference</b>
Most sophisticated standard desktop seat provided by contractor	550 Megahertz Pentium III, 384 megabyte random access memory, 9 gigabyte hard drive, 32 speed compact disk.	550 Megahertz Intel Xeon PIII, 512 megabyte random access memory, 9 gigabyte hard drive, 32 speed compact disk, 21" monitor.	The ODIN hardware has more memory. Also, the ODIN seat includes a 21" monitor, while the JPL seat includes no monitor.
Standard application software	Standard application software suite (word processing, spreadsheet, presentation graphics, e-mail, Internet, anti-virus).	Standard application software suite (word processing, spreadsheet, presentation graphics, e-mail, Internet, anti-virus).	None
Printer	Not included in JPL's seat refreshment. Printer is an optional peripheral.	ODIN's seat includes access to a networked black and white printer.	The ODIN seat includes a shared printer. The JPL seat has no printer.
Hardware technology refresh	Every 3 years	Every 3 years	None
Software technology refresh	Provided as part of "Normal Assistance Service."	Provided as part of the ODIN seat.	None
Maintenance support	Includes hardware, system software, and application software support. "Normal Assistance Service" restores service within 8 hours for on-site assistance.	Includes hardware, system software, and application software support. Restores service by close of next business day.	JPL's Normal Assistance Service has a slightly better turn-around time than ODIN's maintenance support service.
Contractor help desk	Available 24 hours a day, 7 days a week.	Available from 6:00 a.m. to 6:00 p.m. on workdays.	JPL's help desk provides wider time coverage.
Systems administration	Included	Included	None
Local Area Network connectivity	Included	Included	None
Monthly seat price	\$273 <sup>1</sup>	\$171 <sup>2</sup>	\$102

<sup>1</sup> The JPL seat price is based on a Compaq EN 550 computer (\$97) plus a Compaq P110 21-inch monitor (\$36) plus Normal Assistance Service (\$140).

<sup>2</sup> The ODIN seat price at Johnson, Kennedy, and Marshall is based on the average monthly cost of a Scientific and Engineering 2 (SE2) seat.

## **Appendix D. Desktop Outsourcing Contract at JPL**

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The following information pertains to the desktop and network services contract at JPL.

Contract Number:	961148
Contract Awarded By:	Jet Propulsion Laboratory (JPL), California Institute of Technology
Outsourcing Contractor:	OA0 Corporation
Contract Dates:	JPL issued a letter contract on November 14, 1997, and a definitive contract on February 11, 1998.
Contract Type:	Fixed-price contract with fixed prices at the unit level
Period of Performance:	December 22, 1997, through December 31, 2002
Contract Ceiling Price:	\$110 million
Contract Services and Pricing:	<p>The contractor shall provide all necessary resources, including but not limited to personnel, proximal and remote facilities, transportation, computer hardware, software, documentation, and all necessary equipment and support services. The primary service categories are:</p> <ul style="list-style-type: none"><li>• Help desk</li><li>• System administration</li><li>• Computer hardware maintenance</li><li>• System replenishment</li></ul>

The monthly desktop seat price consists of two components: (1) JPL pays the contractor a fixed monthly assistance service charge of \$140 per seat for help desk, system administration, and hardware maintenance; and (2) JPL pays the contractor a monthly charge (replenishment service charge) per seat for using the contractor-provided computer hardware. This charge equals the contractor's actual invoice costs for the hardware and a fixed dollar markup, divided by the hardware replenishment service period of 36 months.

## **Appendix E. Summary of Prior Audit Coverage**

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The NASA Office of Inspector General has issued two final reports relating to the Outsourcing Desktop Initiative for NASA. (Copies of the reports are available at [www.hq.nasa.gov/office/org/hq/issuedaudits.html](http://www.hq.nasa.gov/office/org/hq/issuedaudits.html)).

### **“Delivery Order Placement Under Outsourcing Desktop Initiative Contracts,” Report Number IG-99-003, November 10, 1998.**

NASA can improve its readiness to place ODIN delivery orders by implementing an effective program management process. Key documents such as the Program Commitment Agreement (PCA) and program plan and an overall risk management process have not been approved and put into effect as required by NASA policy. Improved program management will help NASA identify and benefit from lessons learned from outsourcing and effectively manage ODIN delivery order placement. We recommended that the NASA CIO submit an ODIN PCA to the NASA Administrator for review and approval. We also recommended that the ODIN Program Manager complete and execute a program plan for ODIN. Additionally, we recommended that the ODIN Program manager establish a continuous risk management process that would identify risk and its effects, prioritize risks for mitigation or elimination, and maintain a risk management plan. Management concurred with the report recommendations and took responsive actions.

### **“Outsourcing of Desktop Computers,” Report Number IG-98-029, September 14, 1998.**

NASA had not ensured the adequacy or consistency of cost data to be used to place outsourcing delivery orders. After completing the Business Case analysis, which supported outsourcing, NASA updated the available cost data on outsourcing desktop computers, through successive iterations, to support each phase of the competitive procurement process. NASA used the updated data to assess the Agency-wide benefits of outsourcing. However, NASA had not issued guidance on preparing reliable cost estimates in support of delivery order placement. Without consistently prepared and reliable estimates of the costs of the Government activities to be outsourced, the Centers may be unable to make well-informed decisions on the type and extent of outsourcing services they should acquire, particularly with regard to services other than general-purpose computing (for example, intra-Center communications). Also, Centers may be unable to reliably compare the costs of doing business with eligible vendors or to determine the total amount of savings actually achieved through outsourcing. We recommended that the NASA CIO require Centers to develop Government cost estimates for use in determining the type and extent of outsourcing services to be acquired. We also recommended that the CIO issue detailed guidance for the Centers to use in developing their cost estimates. Management concurred with the report recommendations and took responsive actions.

## Appendix F. Management's Response

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National Aeronautics and  
Space Administration  
**Office of the Administrator**  
Washington, DC 20546-0001



SEP 25 2000

TO: W/Assistant Inspector General for Auditing

FROM: AO/Chief Information Officer  
S/Associate Administrator for Space Science

SUBJECT: Draft Report on Audit of Configuration Controls in Desktop  
Outsourcing – Assignment Number A0000800

Thank you for the opportunity to review and comment on the subject draft report.

We concur with the two recommendations made and our response is below. The Jet Propulsion Laboratory's (JPL's) comments have been incorporated as considered appropriate.

### Recommendation 1

The Associate Administrator for Space Science should ensure that JPL includes the Outsourcing Desktop Initiative for NASA (ODIN) among competitors for future desktop outsourcing.

Response: CONCUR

The Associate Administrator for Space Science agrees that JPL should consider ODIN among competitors for future desktop outsourcing and JPL has committed to this in the California Institute of Technology letter from B.C. Lathrop-Pino to Mr. Robert A. Powell, NASA Office of Inspector General dated June 7, 2000. JPL continues to support its stated commitment in their official laboratory response dated September 12, 2000, to this subject draft audit report. Management considers this action closed.

We are not able to comment on the report's estimated \$33.6 million potential cost savings. Potential cost savings was and will continue to be a major consideration in future competition for JPL seat management.

### Recommendation 2

The NASA Chief Information Officer (CIO) should direct the ODIN Program Manager to assess the effectiveness of the two seat assignment approaches and

to issue guidance to all installations for their use in making appropriate seat assignments.

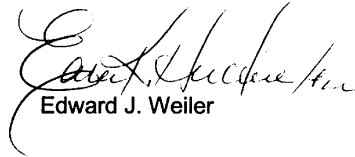
Response: CONCUR

The NASA CIO has directed the ODIN Program Manager to assess the effectiveness of seat assignment approaches and develop a guidance document that may be used by the installations for determining their seat selection approach. The data collection exercise to support this action is already underway. In addition to a comprehensive review of delivery order profiles, the NASA ODIN Program Manager will conduct interviews with both Center and Headquarters representatives to further clarify their respective approaches to ODIN seat selection.

The NASA CIO will issue guidance on approaches for seat assignment by March 31, 2001.



Lee B. Holcomb



Edward J. Weiler

cc:  
AO/C. Simonson  
JM/M. Myles  
JM/H. Robbins  
SJ/D. Bromley  
SP/N. Porter  
GSFC/200/M. Hagerty



## **Appendix G. Report Distribution**

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### **National Aeronautics and Space Administration (NASA) Headquarters**

A/Administrator  
AE/Chief Engineer  
AI/Associate Deputy Administrator  
AO/Chief Information Officer  
B/Chief Financial Officer  
B/Comptroller  
BF/Director, Financial Management Division  
C/Associate Administrator for Headquarters Operations  
G/General Counsel  
H/Associate Administrator for Procurement  
HK/Director, Contract Management Division  
HS/Director, Program Operations Division  
J/Associate Administrator for Management Systems  
JM/Acting Director, Management Assessment Division  
L/Associate Administrator for Legislative Affairs  
M/Associate Administrator for Space Flight  
Q/Associate Administrator for Safety and Mission Assurance  
R/Associate Administrator for Aerospace Technology  
R/Chief Information Officer Representative

### **NASA Centers**

Director, Goddard Space Flight Center  
Director, Johnson Space Center  
Director, Kennedy Space Center  
Chief Counsel, John F. Kennedy Space Center  
Director, Marshall Space Flight Center  
Head, Program Management Council Working Group  
Director, NASA Management Office, Jet Propulsion Laboratory

### **Non-NASA Federal Organizations and Individuals**

Assistant to the President for Science and Technology Policy  
Director, Office of Management and Budget  
Deputy Director of Management, Office of Management and Budget  
Deputy Associate Director, Energy and Science Division, Office of Management and Budget

## **Appendix G**

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### **Non-NASA Federal Organizations and Individuals (Cont.)**

Branch Chief, Science and Space Programs Branch, Energy and Science Division, Office of Management and Budget

Associate Director, National Security and International Affairs Division, Defense Acquisitions Issues, General Accounting Office

Professional Assistant, Senate Subcommittee on Science, Technology, and Space

### **Chairman and Ranking Minority Member – Congressional Committees and Subcommittees**

Senate Committee on Appropriations

Senate Subcommittee on VA, HUD, and Independent Agencies

Senate Committee on Commerce, Science, and Transportation

Senate Subcommittee on Science, Technology, and Space

Senate Committee on Governmental Affairs

House Committee on Appropriations

House Subcommittee on VA, HUD, and Independent Agencies

House Committee on Government Reform

House Subcommittee on Government Management, Information, and Technology

House Subcommittee on National Security, Veterans Affairs, and International Relations

House Committee on Science

House Subcommittee on Space and Aeronautics, Committee on Science

### **Congressional Member**

Honorable Pete Sessions, U.S. House of Representatives

## NASA Assistant Inspector General for Auditing Reader Survey

The NASA Office of Inspector General has a continuing interest in improving the usefulness of our reports. We wish to make our reports responsive to our customers' interests, consistent with our statutory responsibility. Could you help us by completing our reader survey? For your convenience, the questionnaire can be completed electronically through our homepage at <http://www.hq.nasa.gov/office/oig/hq/audits.html> or can be mailed to the Assistant Inspector General for Auditing; NASA Headquarters, Code W, Washington, DC 20546-0001.

**Report Title:** \_\_\_\_\_

**Report Number:** \_\_\_\_\_ **Report Date:** \_\_\_\_\_

*Circle the appropriate rating for the following statements.*

	Strongly Agree	Agree	Neutra l	Disagre e	Strongl y Disagre e	N/A
1. The report was clear, readable, and logically organized.	5	4	3	2	1	N/A
2. The report was concise and to the point.	5	4	3	2	1	N/A
3. We effectively communicated the audit objectives, scope, and methodology.	5	4	3	2	1	N/A
4. The report contained sufficient information to support the finding(s) in a balanced and objective manner.	5	4	3	2	1	N/A

*Overall, how would you rate the report?*

- Excellent
- Very Good
- Good
- Fair
- Poor

*If you have any additional comments or wish to elaborate on any of the above responses, please write them here. Use additional paper if necessary.* \_\_\_\_\_

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*How did you use the report?* \_\_\_\_\_

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*How could we improve our report?* \_\_\_\_\_

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*How would you identify yourself? (Select one)*

- |                     |  |
|---------------------|--|
| Congressional Staff | Media                                    |
| NASA Employee       | Public Interest                          |
| Private Citizen     | Other: _____                             |
| Government: _____   | Federal: _____ State: _____ Local: _____ |

*May we contact you about your comments?*

**Yes:** \_\_\_\_\_ **No:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

Thank you for your cooperation in completing this survey.

## **Major Contributors to the Report**

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Barbara J. Smith, Program Assistant