

## **MEMORANDUM**

**DATE:**

**TO:** Bradley Poston, Interim Director  
Division of Acquisition and Cooperative Support

**FROM:** Deborah H. Cureton  
Associate Inspector General for Audit

**SUBJECT:** NSF OIG Audit Report No. OIG-06-1-012, Report on Audit of RTSC  
Polar Services Billing System Internal Controls

In response to your request for audit assistance we contracted with the Defense Contract Audit Agency (DCAA) to perform a series of audits of the Raytheon Polar Services Company's (RPSC) Calendar Year 2000-2004 incurred cost proposal submissions of costs claimed under NSF Contract OPP-0000373. As these audits are completed and issued to the NSF OIG by DCAA's Herndon Branch Office, we provide the results and our recommendations to the Division of Acquisition and Cooperative Support (DACS) for appropriate action. This DCAA audit report addresses RPSC's billing system internal controls.

The objectives of the audit were to determine whether RPSC's billing system internal controls applied under the NSF contract are: 1) in compliance with applicable laws and regulations; 2) effective; and 3) adequate and operating effectively.

DCAA performed the audit in accordance with Generally Accepted Government Auditing Standards.

### **Background**

The United States Antarctic Program (USAP) has, since 1971 when NSF assumed full responsibility for USAP, provided a permanent presence and overseen U.S. scientific interests in Antarctica. RPSC, located in Centennial, Colorado, is a unit of Raytheon Technical Services Company (RTSC) headquartered in Reston, Virginia. RPSC is under

contract with NSF to provide science, operations, and maintenance support to sustain year-round research programs. The contract consists of a five-year base period and five option periods for a total of ten years and is valued at \$1.1 billion. The charges claimed against the contract average [REDACTED].

### **Summary of Results**

On April 3, 2006, DCAA Herndon Branch Office issued "Report on Audit of RTSC Polar Services Billing System Internal Controls" (see Attachment). The auditors found that the internal controls governing RTSC and RPSC's billing system are inadequate. DCAA identified several significant deficiencies. The deficiencies could adversely affect RPSC's ability to record, process, summarize, and report billings to NSF in a manner that is consistent with its NSF USAP contract terms and conditions.

A brief summary of the DCAA audit findings concerning RPSC's inadequate billing system internal controls follows:

- Inadequate Management Review of Payment Requests and Expenditures RPSC did not document management reviews of the Advance Payment Requests or Quarterly Expenditure Reports submitted to NSF. Additionally, RPSC employees tasked with preparing the Quarterly Expenditure Reports were not briefed on the NSF USAP contract's initial and frequently changing terms and conditions caused by contract modifications between RPSC and NSF. These deficiencies may result in billings to NSF that do not comply with the NSF USAP contract terms and conditions.
- Lack of Training RPSC does not have an employee-training program structured to produce employees with the necessary skills to consistently and accurately identify and monitor restricted funds and unallowable costs. This deficiency can result in requests for improper payments. In particular, the RPSC training policies and procedures need to address how an employee can accurately determine if a cost is allowable for payment under the NSF USAP contract terms and conditions.
- Lack of Segregation of Duties RPSC does not have adequate segregation of duties in the billing process to prevent or identify billing errors. RPSC currently has one employee who prepares and approves both the requests for advance contract payments and the Quarterly Expenditure Reports documenting how RPSC spent the advance payment funds. Concentrating the duties for requesting and accounting for advance payments in one RPSC employee significantly increases the risk that an accounting error will not be identified and corrected. This could result in a material misstatement of contract costs by RPSC to NSF.
- Inadequate Internal Control for Cost Monitoring RPSC does not have policies and procedures to correctly classify costs belonging to Restricted Work Breakdown Structures. Without policies and operating procedures, the RPSC employees responsible for classifying the costs cannot ensure their own higher-level

management or NSF that they correctly recorded and billed contract costs in compliance with the NSF USAP contract terms and conditions.<sup>1</sup>

- Lack of Policies and Procedures for Billing Reconciliations RPSC does not have written policies and procedures to reconcile Quarterly Expenditure Reports to the source accounting records, possibly resulting in over billings to NSF. RPSC uses multiple systems to track and monitor costs for the NSF contract and does not bill directly from its audited accounting system. Therefore, RPSC should reconcile costs billed on the Quarterly Expenditure Reports to the costs reflected in its audited accounting system records.<sup>2</sup> Furthermore, RPSC provided no evidence of comparisons between the actual rates to the billed ceiling rates to ensure that the lower of those rates are always billed.
- Inadequate Monitoring of Subcontractor RPSC does not have written policies and procedures for monitoring its subcontractors' accounting and billing systems. This deficiency may result in inaccurate subcontractor billings to RPSC which would, in turn, affect billings to the NSF USAP contract.<sup>3</sup> Policies and procedures would guide RPSC employees in performing, assessing, and documenting the risk that RPSC subcontractors can accurately record and bill the costs of subcontract performance in accordance with the subcontract terms and conditions.

We believe these deficiencies contributed to the \$33.4 million of questioned costs identified in our March 31, 2005<sup>1</sup> audit report. Further, the lack of adequate billing controls combined with deficiencies identified in other RPSC business processes prevents RPSC from ensuring the reliability of its current or future billings to NSF.

### **Recommendation**

The DCAA audit report recommends improvements to internal controls over RPSC's billing system. Accordingly, we recommend that NSF's Director of the Division of Acquisition and Cooperative Support work with RTSC and RPSC to address all of the recommendations in the DCAA report and ensure that RPSC:

- Establishes adequate policies and procedures, including an internal management oversight program and an employee training program, to ensure compliance with the requirements of the USAP contract. An oversight program should ensure that RPSC

---

<sup>1</sup> RPSC's misclassification of indirect costs as direct costs resulted in NSF being incorrectly billed for [REDACTED] of unallowable costs between January 1, 2000 and December 31, 2002. In addition, overcharges including indirect costs and unsupported costs resulted in a total of \$33.4 million in questioned costs. See NSF OIG Report OIG-5-01-005, Audit of Raytheon Polar Services Company's Costs Claimed FY 2000-2002 dated March 31, 2005.

<sup>2</sup> The monetary impact of RPSC's failure to perform reconciliations between NSF billings and RPSC accounting records was also reported in NSF OIG Report OIG-5-01-005.

<sup>3</sup> The inadequate monitoring of subcontractors by NSF was previously reported to NSF in NSF OIG Report OIG-06-2-003, Survey and Internal Control Assessment Review of the RPSC dated March 15, 2006.

management conducts periodic reviews of its billing process; provides for employees trained in current contract requirements; adequately segregates the duties of employees preparing and approving billing documents; identifies, selects and approves costs related to the NSF USAP contract; reconciles the quarterly report and the source of the cost; and monitors subcontractor accounting and billing systems.

In its response to the draft of the DCAA report, RPSC agreed to update its current policies and procedures to resolve the issues identified. However, NSF should follow-up to ensure RPSC's proposed actions are adequate to address the report recommendations and are effectively implemented.

We consider the issues in the audit report to be significant. Accordingly, to help ensure the findings are resolved within six months of issuance of the audit report, please coordinate with our office during the resolution period to develop a mutually agreeable resolution of the audit recommendations. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and proposed corrective actions have been satisfactorily implemented.

We are providing a copy of this memorandum to the Director of the Office of Polar Programs, the Director of Budget, Finance and Award Management, and the Director of the Division of Institution and Award Support. The responsibility for audit resolution rests with DACS. Accordingly, we ask that no action be taken concerning the report's findings without first consulting DACS at (703) 292-8242.

### **OIG Oversight of Audit**

To fulfill our responsibilities under Government Auditing Standards, the Office of Inspector General:

- Reviewed DCAA's approach and planning of the audit;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with DCAA and OIG management to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by DCAA to ensure compliance with Government Auditing Standards and Office of Management and Budget Circulars; and
- Coordinated issuance of the audit report.

DCAA is responsible for the attached auditor's report on RPSC dated April 3, 2006 and the conclusions expressed in the report. The NSF OIG does not express any opinion on the conclusions presented in DCAA's audit report.

We also want to bring to your attention that DCAA has briefly discussed the results of several other audits performed at RTSC or Raytheon Corporate Headquarters beginning on page 19 of the attached DCAA report. Many of the reports have information that may be useful to NSF in administering its USAP contract with RPSC. If NSF desires a copy of any of the referenced DCAA reports, please contact Kenneth Stagner at (303) 312-7655.

We thank you and your staff for the assistance that was extended to us during the audit. If you have any questions about the attached report, please contact Kenneth Stagner or Jannifer Jenkins at (703) 292-4996.

Attachment - DCAA Report on Audit of RTSC Polar Services Billing System Internal Controls dated April 3, 2006.

cc: Karl Erb, Director, OPP  
Thomas Cooley, Director, BFA  
Mary Santonastasso, DIAS



**DEFENSE CONTRACT AUDIT AGENCY**  
**AUDIT REPORT NO. 6161-2005P11010001**



April 3, 2006

**PREPARED FOR:** National Science Foundation  
ATTN: Ms. Deborah Cureton  
Associate Inspector General for Audit  
4201 Wilson Boulevard  
Arlington, VA 22230

**PREPARED BY:** DCAA Herndon Branch Office  
171 Elden Street, Suite 305  
Building 2, 3rd Floor  
Herndon, VA 20170  
Telephone No. (703) 735-3469  
FAX No. (703) 735-3421  
E-mail Address dcaa-fao6161@dcaa.mil

**SUBJECT:** Report on Audit of RTSC Polar Services Billing System Internal Controls

**REFERENCES:** Prime Contract Number: PRSS-0000373

**CONTRACTOR:** Raytheon Polar Services Company  
Raytheon Technical Services Company  
Raytheon Company  
12160 Sunrise Valley Drive  
Reston, VA 20191

**REPORT RELEASE RESTRICTIONS:** See Page 34

	<u>Page</u>
<b>CONTENTS:</b> Subject of Audit	1
Executive Summary	1
Scope of Audit	2
Results of Audit	3
Contractor Organization and Systems	19
DCAA Personnel and Report Authorization	33
Audit Report Distribution and Restrictions	34
Appendix	35



## **Audit Report No. 6161-2005P11010001**

### **SUBJECT OF AUDIT**

We have examined the Raytheon Polar Services Company (RPSC) Billing System as of June 2005 to assure the RPSC Billing System and related internal controls:

- comply with applicable laws and regulations,
- are effective over compliance with applicable laws and regulations, and
- are adequate and operating effectively.

RPSC is responsible for establishing and maintaining an adequate billing system. Our responsibility is to express an opinion on the adequacy of the billing system based on our examination.

### **EXECUTIVE SUMMARY**

In our opinion, the contractor's billing system and related internal controls are inadequate in part. Our examination disclosed seven (7) significant deficiencies in two (2) separate internal control objectives (Management Reviews and Policies and Procedures) in the RPSC Billing System that results in a reduction of the Government reliance on RPSC direct and indirect cost billing to the Government. The deficiencies are as follows:

#### **SIGNIFICANT ISSUES**

- The RPSC Quarterly Expenditure Report and Advance Payment Requests do not show evidence of Management Reviews prior to submission to the government.
- RPSC has no formal training process for reporting expenditures. In addition, RPSC has no training process to assist employees in identifying and monitoring restricted funds and unallowable costs.
- RPSC did not brief the contract upon award of the Polar Services contract. Adequate preparation and maintenance of contract briefs as part of the billing process is necessary to disclose all significant requirements and all current and relevant changes to the contract for billing and other RPSC personnel requiring contract specific information.



## **Audit Report No. 6161-2005P11010001**

- RPSC has no written policies and procedures requiring segregation of duties between the employee who prepares, approves or certifies the Advance Payment Requests and the Quarterly Expenditure Reports. RPSC did not provide adequate supporting documentation of an actual process that monitors cost incurred and subsequently billed on restricted Work Breakdown Structures (WBS). We found no process in place to identify, select and approve costs incurred applicable to WBS with restricted funds.
- RPSC did not provide any evidence of reconciliations performed between the Quarterly Expenditure Reports and the source of cost (SAP Accounting System). Furthermore, RPSC provided no evidence of comparisons between the actual rates to the billed ceiling rates to ensure that the lower of those rates are always billed.
- RPSC did not provide adequate supporting documentation on how it monitors the adequacy of the subcontractor's accounting and billing systems in a timely manner.

### **SCOPE OF AUDIT**

We conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we obtain a sufficient understanding of internal controls to plan financial audits and determine the nature, timing, and extent of tests to be performed. An examination of internal controls includes:

- identifying relevant system control objectives and associated control activities,
- obtaining an understanding of all applicable components of internal control for the identified control objectives and activities,
- determining if the internal controls are adequate and in operation, and
- assessing control risk to use as a basis for planning the nature, timing, and extent of substantive testing in other attestation audits.

We evaluated the billing system using the applicable requirements contained in the:

- Federal Acquisition Regulation (FAR);
- Defense FAR Supplement (DFARS); and
- Cost Accounting Standards (CAS).



## **Audit Report No. 6161-2005P11010001**

Our examination specifically tested the billing system's internal control procedures associated with the following control objectives:

- Management Reviews;
- Policies and Procedures; and
- Implementation of Policies and Procedures.

Test procedures were applied from August 2005 to June 2005.

We believe that our examination provides a reasonable basis for our opinion.

Because of inherent limitations in any internal control, misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal control over the billing system to future periods are subject to the risk that the internal control may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

### **RESULTS OF AUDIT**

In our opinion, RPSC Billing System and related internal control policies and procedures are inadequate in part. Our examination noted certain deficiencies in the design or operation of the internal control structure. In our judgment, these deficiencies could adversely affect the contractor's ability to record process, summarize, and report billings in a manner that is consistent with applicable government contract laws and regulations. These conditions are detailed in the "Statement of Conditions and Recommendations" on page 5 of this report and summarized below:

- The RPSC Quarterly Expenditure Report and Advance Payment Requests do not show evidence of Management Reviews prior to submission to the government.
- RPSC has no formal training process for reporting expenditures. In addition, RPSC has no training process to assist employees in identifying and monitoring restricted funds and unallowable costs.
- RPSC did not brief the contract upon award of the Polar Services contract. Adequate preparation and maintenance of contract briefs as part of the billing process is necessary to disclose all significant requirements and all current and relevant changes to the contract for billing and other RPSC personnel requiring contract specific information.

**Audit Report No. 6161-2005P11010001**

- RPSC has no written policies and procedures requiring segregation of duties between the employee who prepares, approves or certifies the Advance Payment Requests and the Quarterly Expenditure Reports.
- RPSC did not provide adequate supporting documentation of an actual process that monitors cost incurred and subsequently billed on restricted Work Breakdown Structures (WBS). We found no process in place to identify, select and approve costs incurred applicable to WBS with restricted funds.
- RPSC did not provide any evidence of reconciliations performed between the Quarterly Expenditure Reports and the source of cost (SAP Accounting System). Furthermore, RPSC provided no evidence of comparisons between the actual rates to the billed ceiling rates to ensure that the lower of those rates are always billed.
- RPSC did not provide adequate supporting documentation on how it monitors the adequacy of the subcontractor's accounting and billing systems in a timely manner.

We provided a draft copy of the Statement of Conditions and Recommendations to the contractor's representative on January 24, 2006. We discussed the results of audit with

[REDACTED]

Governance in an exit conference held on March 22, 2006. RPSC agreed to make changes to the controls related to management reviews, training, segregation of duties, monitoring costs incurred on restricted WBS, and reconciliation of the Quarterly Expenditure Report and SAP Accounting System. In addition, RPSC agreed that RTSC Long Beach Billing Department will maintain the master copy of the Raytheon Polar Services contract brief. According to [REDACTED], a copy of the most current contract brief will also be maintained by the Controller at Raytheon Polar Services. The complete text of the RPSC response, dated February 24, 2006 appears as an Appendix of this report and is also incorporated into the Statement of Conditions and Recommendations.

We examined only the RPSC Billing System. Accordingly, we express no opinion on the contractor's internal controls taken as a whole.

**Audit Report No. 6161-2005P11010001**

**STATEMENT OF CONDITIONS AND RECOMMENDATIONS**

STATEMENT No. 1 - MANAGEMENT REVIEWS

CONDITION:

The RPSC Quarterly Expenditure Reports and Advance Payment Requests do not show evidence of management reviews prior to submission to the government. We observed that the primary person generating Advance Payment Requests and Quarterly Expenditure Reports also approved and certified the same documents. This is considered a serious deficiency in the billing process because it increases the probability that material misstatements and errors may occur. A member of management higher than the person generating the billing documents should review and approve the documents. The existence of this internal control (i.e., management reviews) will increase the reliance that can be placed on the cost representations from the contractor's accounting system.

RECOMMENDATION:

We recommend RPSC develop policies and procedures on management reviews of its billing process involving Advance Payments and Quarterly Expenditure Reports.

RPSC policies and procedures should address periodic monitoring and regular compliance reviews of Advance Payment Requests and Quarterly Expenditure Reports to ensure that the billing process complies with applicable regulations and contract provisions.

Policies and procedures for management reviews should also define lines of authority as well as duties and responsibilities for those personnel involved in management reviews. Management duties and responsibilities related to the Advance Payment Requests and Quarterly Expenditure Reports should include:

- What data is reviewed by whom?
- What level of management or position is responsible for conducting the reviews?
- Are the reviews delegated by a higher level of management and reported accordingly?
- How approvals are documented?
- How changes are directed and incorporated from the official books and records (SAP Accounting System) to the Quarterly Expenditure Report?
- Definitions as to tasks that management is required to perform.
- Specific interval of time on when the management reviews will be conducted.

**Audit Report No. 6161-2005P11010001**

- The policy should require that documentation be maintained as evidence that management compliance reviews were performed and document the results of follow up reviews. This documentation should include but not be limited to the signature of the person who performed the review and the date in which it was performed.
- The policy should also require follow up reviews be performed for any findings and recommendations identified during the management review process. The policy should address tracking responses and resolutions of corrective actions as well as provide that corrective actions are documented and verified.

**CONTRACTOR’S RESPONSE:**

RPSC response letter, dated February 24, 2006 stated that “RTSC makes every effort to ensure that it complies with all regulations and standards required as a contractor to the U.S. Government.”

“With respect to the noted deficiencies and recommendations, RTSC – Polar Services agrees to create a Polar Services Management Review Procedure to address periodic monitoring and regular compliance reviews of Advance Payment Requests and Quarterly Expenditure Reports to ensure proper oversight per the audit recommendation. The procedure will be created by April 30, 2006.”

**AUDITOR’S COMMENTS:**

RPSC agreed to develop and implement a procedure on management reviews of its billing process involving Advance Payments and Quarterly Expenditure Reports. However, the contractor’s response is not detailed or descriptive enough for us to determine whether or not its corrective actions will be adequate. We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiencies and comply with our recommendations. For us to evaluate the adequacy of the corrective action plan for a follow-up review, the contractor should document and maintain the plan in sufficient detail to demonstrate how each of our recommendations was addressed.

**STATEMENT No. 2 - POLICIES AND PROCEDURES ON TRAINING**

**CONDITION:**

RPSC has no formal training process for reporting expenditures. In addition, RPSC has no training process to assist employees in identifying and monitoring restricted funds and unallowable costs. We consider the lack of a formal training process a serious deficiency because it increases the risk of inaccurate Expenditure Reports and/or Advance Payment

## **Audit Report No. 6161-2005P11010001**

Requests not being prepared in accordance with applicable laws, regulations, and contract terms. All appropriate personnel should have training in the preparation of these reports/documents to minimize or avoid errors as well as enable personnel to become efficient and accurate in the reporting process.

### **RECOMMENDATION:**

We recommend RPSC develop a training manual which describes in detail the various steps required in the billing process to include:

#### Advance Payment Requests:

- The process on how advance payment requests are generated. This should reference all sources of information typically used in determining the amount of the advance payment requested.
- The forms used in requesting an advance payment.

#### Quarterly Expenditure Reports:

- The methodology used in downloading cost data from the RTSC Accounting System for generating a Quarterly Expenditure Report.
- The methodology used in uploading the data into the POFMS System.
- The process on how the data in the POFMS System is reconciled to the SAP Accounting System.
- The steps required to generate a Quarterly Expenditure Report.
- Details of all approvals required during the process including internal and external approval requirements.

RPSC should also develop written policies and procedures that describe the training required for its billing employees. RPSC policies and procedures should require:

- Employees involved in the billing process to be trained in the development of Advance Payment Requests, Quarterly Expenditure Reports, monitoring costs on restricted WBS, reconciliation of costs relative to the RPSC requirements, and all other billing and reporting requirements of the Polar contract.
- Training on the Federal Acquisition Regulation (FAR) clauses specific to the Polar contract and applicable Cost Accounting Standards (CAS).
- Instructions on the proper way of dealing with issues concerning allowability, allocability, and reasonableness of costs as they relate to government contracts.

## **Audit Report No. 6161-2005P11010001**

- Clarification on the frequency of training. The degree and frequency of training should be specific to ensure that employees are kept up to date on all changes in CAS, FAR, disclosure statement practices, and changes in contract billing or reporting requirements.
- Requirement to document training history. The policies and procedures should provide requirements for documenting and maintaining training records as evidence of the completion of the required training courses. Documentation of an employee's training history will also assist in the determination of when an employee is required to take additional training to keep current on topics related to the billing function.

### **CONTRACTOR'S RESPONSE:**

RPSC letter dated February 24, 2006 stated that "RTSC provides all employees with the necessary training and or resources to perform their responsibilities. RTSC, through the Raytheon Learning Institute, provides courses designed to accompany the training employees have received within their respective departments. In addition, RTSC provides resource material on the company website to assist employees, along with contact information for subject matter experts. The website also provides access to all Raytheon Company and RTSC Policies and Procedures for all functions (i.e. Finance, Contracts, Human Resources, Engineering, et al) for governance and compliance."

"RTSC believes in continued improvement in all areas including policies and procedures and training. As a result of the suggestions provided in this audit report, we agree to develop a Polar training manual that details the various steps required in the billing process and outlines the training required. The training manual will be created by May 15, 2006."

### **AUDITOR'S COMMENTS:**

RPSC agreed to develop a Polar training manual that details the various steps required in the billing process. We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiencies and comply with our recommendations. For us to evaluate the adequacy of the corrective action plan for a follow-up review, the contractor should document and maintain the plan in sufficient detail to demonstrate how each of our recommendations was addressed.

**Audit Report No. 6161-2005P11010001**

**STATEMENT No. 3 - POLICIES AND PROCEDURES ON CONTRACT BRIEFS**

**CONDITION:**

RPSC did not brief the contract upon award of the Polar Services contract. DCAA requested a copy of the contract brief from RPSC at the inception of the audit. At that time, RPSC developed a contract brief for audit purposes and had it reviewed by the RTSC contracts office. The preparation and maintenance of a contract brief as part of the billing process is necessary to disclose all significant requirements and all current and relevant changes to the contract for billing and other RPSC personnel requiring contract specific information. The contract brief should provide for all restrictions, profit/fee provisions, identification of unallowable and non-billable cost and all other special requirements of the contract. The lack of a contract brief may result in billings that are outside contract terms and conditions.

**RECOMMENDATION:**

We recommend RPSC develop and maintain a contract brief that can be used for the purpose of RPSC personnel. In addition, we recommend that policies and procedures on the adequate preparation and maintenance of contract briefs, as part of the billing process, be developed to ensure that briefs are prepared and maintained on a current basis. These policies and procedures should include:

- Detailed description of the contract briefing process and how often the contract brief will be updated;
- List of all documentation required to be included in the contract brief (e.g., contract clauses, ceiling rates, identification of unallowable costs, contract restrictions, special requirements, identification of non-billable cost, etc.);
- Requirement to include all contract modifications, withholds, and special provisions;
- Someone above the employee who prepared the contract brief should review all contract brief forms, validate the contract brief data, and initial the brief form as evidence of the review;
- Develop training on the contract briefing process to include interpreting contract provisions, identifying requirements, and accurately completing the required contract brief form.

## **Audit Report No. 6161-2005P11010001**

### **CONTRACTOR'S RESPONSE:**

On February 24, 2006 [REDACTED] provided to DCAA a response to the recommendations for the RPSC Billing System. Based on [REDACTED] response, "RTSC currently has a procedure in place for documenting and maintaining an adequate contract brief. According to [REDACTED], "RTSC uses form CMBD014 to maintain contract brief information for billing purposes."

An e-mail message sent by [REDACTED] on March 23, 2006 states that the Long Beach Billing Department is provided a copy of all contract modifications to ensure the information is available to maintain a current copy of the contract brief. According to [REDACTED], the form CMBD014 was completed and is maintained by the Long Beach Billing Department for the Polar Contract. The Long Beach Billing Department will maintain the master copy of the contract brief and will ensure that the form CMBD014 remains current for the Polar Contract. In addition, [REDACTED] stated that a copy of the most current contract brief will also be maintained by the RPSC Controller.

### **AUDITOR'S COMMENTS:**

RPSC has been directed by the National Science Foundation to use the Quarterly Expenditure Report Form for billings and also the Advance Payment Requests Form.

In addition, the RPSC business unit does not utilize the Standard Form 1034 generated by the Long Beach Billing Department. Furthermore, the Quarterly Expenditure Report is not generated from the same system as the Standard Form 1034. The Standard Form 1034 is generated using the SAP Accounting System and the Quarterly Expenditure Report is generated out of the Polar Operations Financial Management System (POFMS). For these reasons, the generation and maintenance of the contract brief form at the Long Beach location does not satisfy the requirement for a contract brief as a control objective in the RPSC Billing System.

RTSC Long Beach should provide a copy of the most current contract brief including contract modifications to RPSC Billing Department. We recommend that RPSC Billing Department maintain a file with a copy of the most current contract brief for the Polar Contract including:

- List of all documentation required to be included in the contract brief (e.g., contract clauses, ceiling rates, identification of unallowable costs, contract restrictions, special requirements, identification of non-billable cost, etc.); and
- All contract modifications, withholds, and special provisions.



## **Audit Report No. 6161-2005P11010001**

We also recommend that someone organizationally higher than the employee who prepared the contract brief review all contract brief forms, validate the contract brief data, and initial the brief form as evidence of the review.

We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiencies and comply with our recommendations. For us to evaluate the adequacy of the corrective action plan for a follow-up review, the contractor should document and maintain the plan in sufficient detail to demonstrate how each of our recommendations was addressed.

### STATEMENT No. 4 - POLICIES AND PROCEDURES ON SEGREGATION OF DUTIES

#### CONDITION:

The RPSC Controller has many roles related to the Polar Services contract. These tasks include generating, approving, and certifying Advance Payments Requests and Quarterly Expenditure Reports. In addition, the RPSC Program Manager is authorized to make Advance Payment Requests while the RPSC Budget Manager is authorized to prepare the Quarterly Expenditure Reports.

RPSC has no written policies and procedures requiring segregation of duties between the employee who prepares, approves or certifies the Advance Payment Requests and the Quarterly Expenditure Reports. The person generating an Advance Payment Request should not also approve or certify that request since it increases the risk that material misstatement or errors may occur.

Moreover, RPSC lacks written policies and procedures requiring segregation of duties between the employee who prepares and approves the Quarterly Expenditure Report. The person preparing the Quarterly Expenditure Report should not also approve that report since it increases the risk that material misstatements or errors may occur.

#### RECOMMENDATION:

We recommend RPSC develop a policy to establish segregation of duties between the employee who prepares and approves billing documents. Specifically, a position such as Accountant or Budget Manager may generate the Advance Payment Request while the Controller should then review and approve that request. The requirement for the contractor to “certify” an Advance Payment Request should only be performed by the Controller as long as he/she did not prepare/generate the request.

**Audit Report No. 6161-2005P11010001**

In addition, an Accountant or other position may generate the Quarterly Expenditure Report while the Controller should then review and approve the report and further certify it as directed by NSF.

If the Controller is required to prepare either of the billing documents, the review and approval should be made by another member of management such as the Program Manager to ensure that billing documents such as requests and reports are free of misstatements or errors.

**CONTRACTOR'S RESPONSE:**

RPSC agrees to include in the Polar Services Management Review Procedure the appropriate segregation of duties as outlined in the audit recommendation. This procedure will be created by April 30, 2006.

**AUDITOR'S COMMENT:**

RPSC has agreed to implement the recommendations related to appropriate segregation of duties. We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiency and comply with our recommendation.

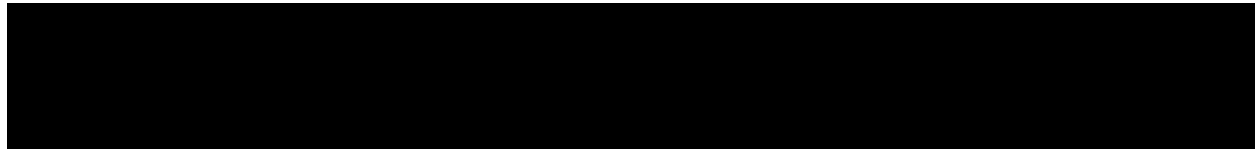
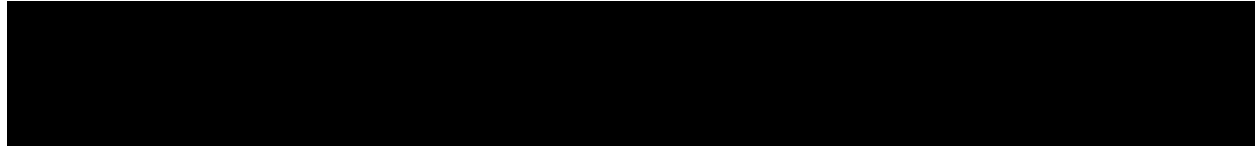
**STATEMENT No. 5 - POLICIES AND PROCEDURES ON MONITORING COSTS INCURRED ON RESTRICTED WBS**

**CONDITION:**

RPSC did not provide adequate supporting documentation of an actual process that monitors cost incurred and subsequently billed on Restricted Work Breakdown Structures (WBS). We found no process in place to identify and approve costs applicable to a "WBS" with restricted funds. This is a significant deficiency because an internal control should be in place to assure that only the applicable costs necessary for the performance of the project are being charged to the appropriate WBS with restricted funds. RPSC needs to have an internal control implemented to track the restricted WBS to ensure that the costs are being used only for the assigned project. No other project should benefit from restricted funds other than the assigned project based on the contract's terms.

**Audit Report No. 6161-2005P11010001**

RPSC has implemented the following two (2) policies:



**RECOMMENDATION:**

We recommend that RPSC develop written policies and procedures including a process to identify, select and approve costs incurred applicable to WBS with restricted funds. RPSC should assign an employee for each project with restricted funds who would be responsible for identifying and selecting the type of costs necessary to perform the project based on the contract's terms. A person managerially higher than this employee should review the costs list and include his/her signature of approval as evidence that a review has been performed. In addition, we suggest that RPSC implement a process that provides for approval of all purchases on restricted WBS by authorized personnel actually receiving purchased items at the "on Ice" location. This process is meant to ensure that costs booked to a restricted WBS are related to items used solely for that project. Controls should be in place to alleviate concerns of cross charging between WBS elements (projects) and also to provide more reliance on costs accrued for restricted WBS.

Lastly, we recommend that RPSC, as part of its billing process, develop a policy for monitoring costs incurred on restricted WBS and subsequently compare the incurred costs to the special funding limits associated with those restricted projects.



**Audit Report No. 6161-2005P11010001**

**CONTRACTOR'S RESPONSE:**

RPSC letter, dated February 24, 2006 stated that "there is a process in place to identify and approve costs applicable to a "WBS" with restricted funds". The letter also states that "there are processes in place to ensure that only authorized personnel approve both the requisitioning of material and charging of labor costs to projects". In addition, the specially funded projects like Ice Cube and SPSM have a reconciliation of the project costs to the accounting system each month. According to [REDACTED], RPSC have a Project Manager, Planning and Controls Manager, and Budget Analyst assigned to each restricted fund project. "Processes are in place to provide for the appropriate approval of all purchases on restricted projects". RPSC believes that the areas raised in the recommendation section are covered in their processes; however, these are not captured in one procedure. RPSC will develop a procedure that covers the items addressed by DCAA in the recommendation. This procedure will be completed by April 30, 2006.

According to [REDACTED] does monitor the costs incurred on restricted WBS and compares the incurred costs to the special funding limits associated with those restricted projects. RPSC believes in continued improvement in all areas including policies and procedures and training. As a result of the suggestions provided in this audit report, RPSC agreed to include in the procedure on the billing process the monitoring of costs incurred and comparison of the incurred costs to the special funding limits.

**AUDITOR'S COMMENT:**

RPSC has agreed to implement the recommendations related to a process to monitor costs incurred and subsequently billed on restricted WBS. We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiencies and comply with our recommendations. For us to evaluate the adequacy of the corrective action plan for a follow-up review, the contractor should document and maintain the plan in sufficient detail to demonstrate how each of our recommendations was addressed.

**STATEMENT No. 6 - POLICIES AND PROCEDURES ON RECONCILIATION OF THE QUARTERLY EXPENDITURE REPORT AND SAP ACCOUNTING SYSTEM**

**CONDITION:**

RPSC did not provide any evidence of reconciliations performed between the Quarterly Expenditure Reports and the cost accounting records. This is considered a deficiency in the RPSC Billing System because RPSC uses multiple systems to track and monitor costs on the Polar contract. Since the contractor does not bill directly from its approved accounting system,

## **Audit Report No. 6161-2005P11010001**

we believe the contractor should reconcile costs billed on the Quarterly Expenditure Reports to the costs based on its accounting records to identify any variances as well as to support billed costs.

Furthermore, RPSC provided no evidence of reconciliations between actual rates and billed rates. RPSC follows the RTSC process that is in place to compare the actual rates to the plan rates, annual forecast, and forward pricing rates. However, RPSC does not compare the actual rates to the billed ceiling rates to ensure that the lower of those rates are always billed.

The comparison of actual rates to billed ceiling rates should always be performed to avoid over billings to the Government. RPSC should bill the ceiling rates only if they are lower than the actual rates as calculated on the RTSC variance reports.

### **RECOMMENDATION:**

We recommend that RPSC develop written policies and procedures on reconciliations between the Quarterly Expenditure Report and the source of cost (SAP Accounting System). We recommend that RPSC implement a process to reconcile the cost on the Quarterly Expenditure Report to the SAP Accounting System monthly and also document explanations for any variances.

Since the Quarterly Expenditure Report is being prepared from the POFMS data, there should be evidence that the costs billed on that report are the same as those recorded in the approved RTSC accounting system. A reconciliation process would ensure greater reliance on the Quarterly Expenditure Report by providing supporting documentation that the billing document is accurate and free of material misstatements.

We recommend that RPSC assign someone managerially higher than the employee preparing the reconciliation to review and approve the reconciliation. The reviewer should sign the reconciliation and reference the date in which it was reviewed.

We encourage RPSC to include in its policies and procedures a detailed description of specific steps to be performed in the event that the Quarterly Expenditure Report and the costs reflected in the accounting system are different. Also, the policies should reference the specific personnel who will be in charge to correct the variances reflected in the reconciliation and a detailed explanation on how to make the corrections to the accounting system or the Quarterly Expenditure Report.

In addition, RPSC should include in its policies and procedures a requirement to perform an analysis of the RTSC monthly variance report. This analysis should include a comparison of the actual rates and ceiling rates to ensure that the lower of billed or ceiling is always used (i.e.,

**Audit Report No. 6161-2005P11010001**

billed) based on the contract's terms. The analysis should be performed monthly and documented for future review to ensure there is a process in place to monitor, adjust, and document rate adjustments when they become necessary.

**CONTRACTOR'S RESPONSE:**

RPSC believes it did provide DCAA evidence of reconciliations between the Quarterly Expenditure Reports and the cost reporting system, POFMS, which RPSC was directed to use by NSF.

In addition, RPSC believes it provided evidence of reconciliation between SAP and POFMS. RPSC also does compare actual rates to billed rates. The actual rates in all years have been higher than the billed ceiling rates in the contract; as a result, RPSC has used the billed ceiling rates in the Quarterly Expenditure Reports. In addition, RPSC does perform an analysis of the RTSC monthly variance report on Overhead and G&A as outlined by RTSC. The review is conducted monthly by the RPSC Controller. The Controller reviews the costs charged to date to the Overhead and G&A accounts. If, through further research, errors are discovered, corrections are requested to be processed by RTSC accounting. RPSC program personnel follow-up with RTSC accounting personnel until it is validated that the requested corrections have been processed in SAP. In addition, the Controller reviews the information to ensure that the forecast for the year is on track. The Controller provides variance comments, corrections and updated forecast information to RTSC.

RPSC agreed to develop a written procedure on the reconciliation between the Quarterly Expenditure Report, the SAP Accounting System and POFMS. The procedure will address the areas outlined in the audit report. The procedure will be created by May 15, 2006.

**AUDITOR'S COMMENT:**

DCAA disagrees with the contractor's response due to the fact that no supporting documentation was provided by RPSC of reconciliations performed between the Quarterly Expenditure Report and SAP Accounting System. In addition, no supporting documentation was provided from RPSC with reconciliations between actual rates and billed rates.

Moreover, RPSC agreed to develop a written procedure on the reconciliation between the Quarterly Expenditure Report and SAP Accounting System. We will perform a follow-up review once the contractor has had sufficient time to implement adequate controls to correct the deficiencies and comply with our recommendations. For us to evaluate the adequacy of the corrective action plan for a follow-up review, the contractor should document and maintain the plan in sufficient detail to demonstrate how each of our recommendations was addressed.

**Audit Report No. 6161-2005P11010001**

**STATEMENT No. 7 - POLICIES AND PROCEDURES ON MONITOR THE ADEQUACY OF SUBCONTRACTOR'S ACCOUNTING AND BILLING SYSTEM.**

**CONDITION:**

RPSC did not provide adequate supporting documentation on how it monitors the adequacy of the subcontractor's accounting and billing systems. The RPSC Manager of Procurement Services stated: "We rely on skilled and experienced subcontract administrators that have experience in managing major subcontracts."

"We also perform financial capability analysis prior to final source selection." The contractor also lacks written documentation that describes the billing process for direct materials and subcontract costs.

**RECOMMENDATION:**

We recommend RPSC develop written policies and procedures that describe how it monitors the adequacy of a subcontractor's accounting and billing systems. The importance of monitoring the subcontractor's accounting and billing systems is to identify and resolve possible:

- overpayments/underpayments,
- adjustments,
- offsets, and refunds

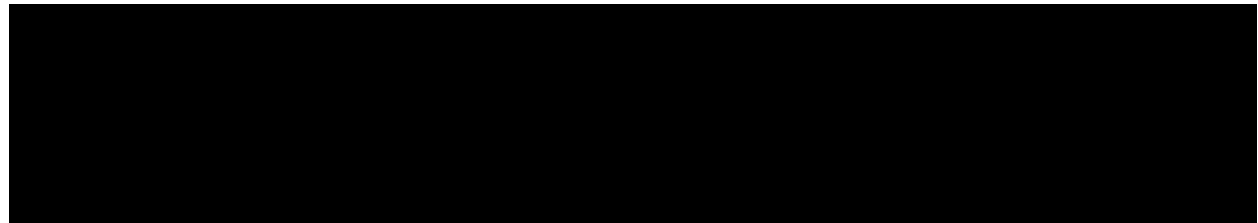
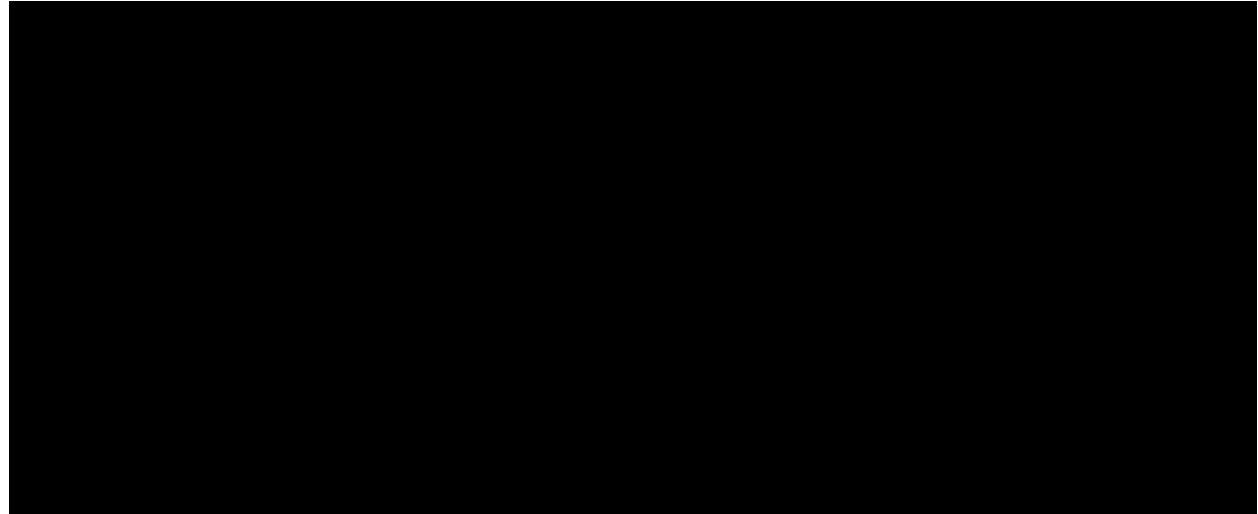
RPSC should not depend on the subcontractor's experience but instead develop and implement policies and procedures to evaluate the subcontractor's accounting and billing system.

We encourage RPSC to identify in its policies and procedures the specific job title designated to perform monthly reconciliations of billed and paid amounts to subcontractors. This policy should also state specific procedures to be completed in the event of variances between the billed and paid amounts to subcontractors. In addition, RPSC should also include in its policies a detailed description of the practices on direct materials and subcontractor billings. This will avoid instances, for example, where direct material and subcontract costs are billed to the Government based on accrued costs. These costs should be billed after the receiving report and vendor invoices have been provided to RPSC.

**Audit Report No. 6161-2005P11010001**

**CONTRACTOR'S RESPONSE:**

RPSC provided a letter to DCAA dated February 24, 2006 which included examples of RTSC and RPSC processes and policies in place to monitor the adequacy of subcontractor's accounting and billing systems in the pre-award and post-award procurement cycle which are referenced below. Both buyers and subcontract administrators are responsible for documenting and monitoring the adequacy of the subcontractor's accounting and billing system.



**AUDITOR'S COMMENT:**

In response to our recommendation, RPSC provided copy of the Supplier Financial Assistance - Progress, Milestone and Advance Payments Policy (PP-03-04), the "Purchase Order File Documentation" (PP-05-00) and the "Post-award Administration" policy (PP-03-00) on February 24, 2006. We received copy of the policies used by RPSC to monitor the subcontractor's accounting and billing system after the completion of our fieldwork. As a result, we were not able to test this area. We will initiate a follow up review in approximately (6) months to verify the adequacy of RPSC monitoring of subcontractor's accounting and billing system based on the policies and procedures provided.





CONTRACTOR ORGANIZATION AND SYSTEMS

I. Organization

RTSC's headquarters is located in Reston, VA. [REDACTED]

[REDACTED] reorganized, consolidating their seven (7) business units into [REDACTED]

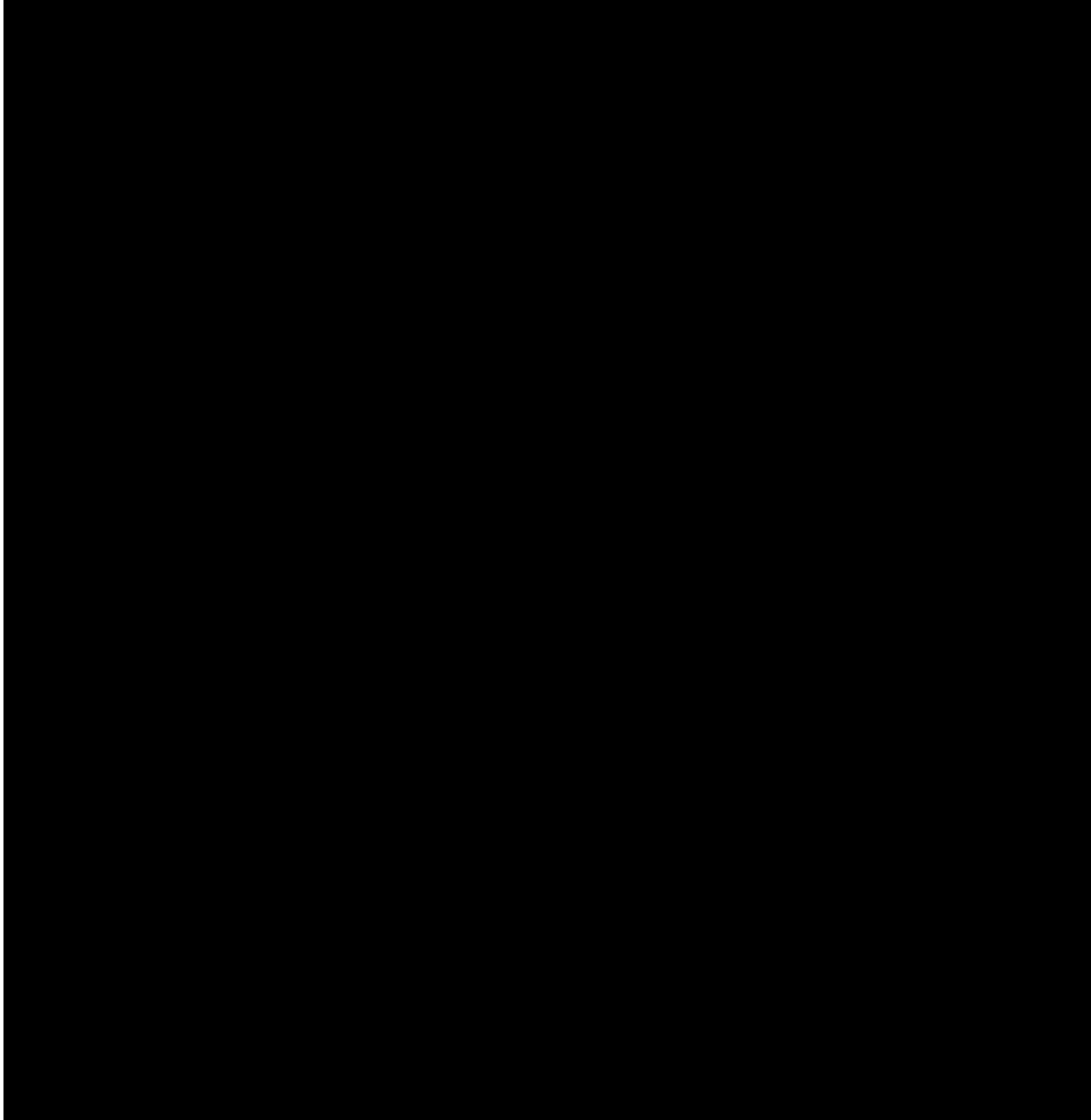
[REDACTED]

RTSC has a multi-disciplined workforce of approximately 10,000 employees. RTSC provides technical, scientific, and professional services to defense, federal, and commercial customers on all seven continents, including support for operations in space, at sea, and on land. RTSC had annual sales of approximately [REDACTED] in FY 2005, of which approximately [REDACTED] are primarily government prime contracts and subcontracts. Of the government contracts and subcontracts, approximately [REDACTED] are flexibly priced (i.e. cost type and time and materials (T&M) type).

[REDACTED]

**Audit Report No. 6161-2005P11010001**

The Polar Services business unit has a workforce of approximately 350 employees that work solely on the Polar Services contract in various capacities to include management, finance, accounting, general operations and specific scientific projects as directed by the contract.



**Pages 21-32 have been redacted in their entirety.**

**Audit Report No. 6161-2005P11010001**

**DCAA PERSONNEL**

Primary contact(s) regarding this audit:

Telephone No.

[REDACTED]

[REDACTED]

Other contact regarding this audit report:

[REDACTED]

[REDACTED]

FAX No.

[REDACTED]

E-mail Address

[REDACTED]

General information on audit matters is available at <http://www.dcaa.mil/>.

**AUDIT REPORT AUTHORIZED BY:**

/Signed/

[REDACTED]

Branch Manager  
DCAA Herndon Branch Office

[REDACTED]

**Audit Report No. 6161-2005P11010001**

**AUDIT REPORT DISTRIBUTION AND RESTRICTIONS**

**DISTRIBUTION**

National Science Foundation  
ATTN: Ms Deborah Cureton  
Associate Inspector General for Audit  
4201 Wilson Boulevard  
Arlington, VA 22230

E-mail Address

[REDACTED]

Raytheon Polar Services  
Raytheon Technical Services Company  
Raytheon Company  
12160 Sunrise Valley Drive  
Reston, VA 20191

(Copy furnished thru NSF Contracting Officer)

**RESTRICTIONS**

[REDACTED]

[REDACTED]

**CONTRACTOR'S WRITTEN RESPONSE**

24 February 2006

TO: Defense Contract Audit Agency  
Attn: [REDACTED]  
171 Eldon Street, Suite 315  
Herndon, VA 20170-4810  
(703) 295 2081

Ref: 1.) DCAA Audit Report, 06-02L-003-6161-2005P11010001, dated 24 January 2006, "Raytheon Polar Services Company Billing System review of policies and procedures".

SUBJECT: RTSC Response to DCAA Audit Report 06-02L-003-6161-2005P11010001, dated 24 January 2006, "Raytheon Polar Services Company Billing System review of policies and procedures".

The following comments address the points raised in your audit report concerning the adequacy of the internal controls over the billing system and the extent RPSC is monitoring compliance with those controls. The audit report outlined deficiencies in the internal control procedures associated with the following control objectives:

- Management Reviews, and
- Policies and Procedures

The below sets forth our response to the recommendations as made in the audit report.

### **Management Reviews**

RTSC makes every effort to ensure that it complies with all regulations and standards required as a contractor to the U.S. Government.

With respect to the noted deficiencies and recommendations, RTSC – Polar Services agrees to create a Polar Services Manage Review Procedure to address periodic monitoring and regular compliance reviews of Advance Payment Requests and Quarterly Expenditure Reports to ensure proper oversight per the audit recommendation. The procedure will be created by 30 April 2006.

### **Training**

RTSC provides all employees with the necessary training and or resources to perform their responsibilities. RTSC, through the Raytheon Learning Institute, provides courses designed to accompany the training employees have received within their respective departments. In addition, RTSC provides resource material on the company website to assist employees, along

with contact information for subject matter experts. The website also provides access to all Raytheon Company and RTSC Policies and Procedures for all functions (i.e. Finance, Contracts, Human Resources, Engineering, et al) for governance and compliance.

RTSC believes in continued improvement in all areas including policies and procedures and training. As a result of the suggestions provided in this audit report, we agree to develop a Polar training manual that details the various steps required in the billing process and outlines the training required. The training manual will be created by 15 May 2006.

### **Contract Briefs**

RTSC currently has a procedure in place for documenting and maintaining an adequate contract brief. RTSC uses form CMBD014 to maintain contract brief information for billing purposes. This form was completed and is maintained by the Long Beach Billing Department for the Polar contract. The Long Beach Billing Department and Polar Services will ensure that this form remains current for the Polar contract.

### **Segregation of Duties**

RTSC – Polar Services agrees to include in the Polar Services Management Review Procedure the appropriate segregation of duties as outlined in the audit recommendation. This procedure will be created by 30 April 2006.

### **Monitoring Costs Incurred on Restricted WBS**

RTSC – Polar believes that there is a process in place to identify and approve costs applicable to a “WBS” with restricted funds. There are processes in place to ensure that only authorized personnel approve both the requisitioning of material and charging of labor costs to projects. In addition, the specially funded projects like Ice Cube and SPSM have a reconciliation of the project costs to the accounting system each month. Polar does have a Project Manager, Planning and Controls Manager, and Budget Analyst assigned to each restricted fund project. Processes are in place to provide for the appropriate approval of all purchases on restricted projects. Polar believes that the areas raised in the recommendation section are covered in our processes, however, these are not captured in one procedure. Polar will develop a procedure that covers the items addressed by DCAA in the recommendation. This procedure will be completed by 30 April 2006.

Polar does monitor the costs incurred on restricted WBS and compares the incurred costs to the special funding limits associated with those restricted projects. Polar believes in continued improvement in all areas including policies and procedures and training. As a result of the suggestions provided in this audit report, we agree to include in the procedure on the billing process the monitoring of costs incurred and comparison of the incurred costs to the special funding limits.

### **Reconciliation of the Quarterly Expenditure Report and SAP Accounting System**

RTSC – Polar believes it did provide DCAA evidence of reconciliations between the Quarterly Expenditure Reports and the cost reporting system, POFMS, which Polar was directed to use by NSF. In addition, Polar believes it provided evidence of reconciliation between SAP and POFMS. Polar also does compare actual rates to billed rates. The actual rates in all years have been higher than the billed ceiling rates in the contract; as a result, Polar has used the billed ceiling rates in the Quarterly Expenditure Reports. In addition, Polar does perform an analysis

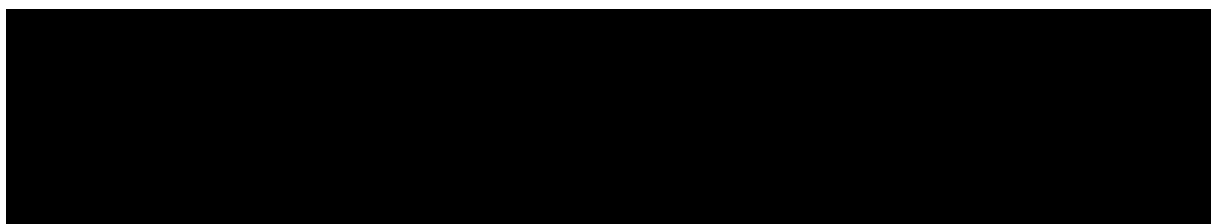
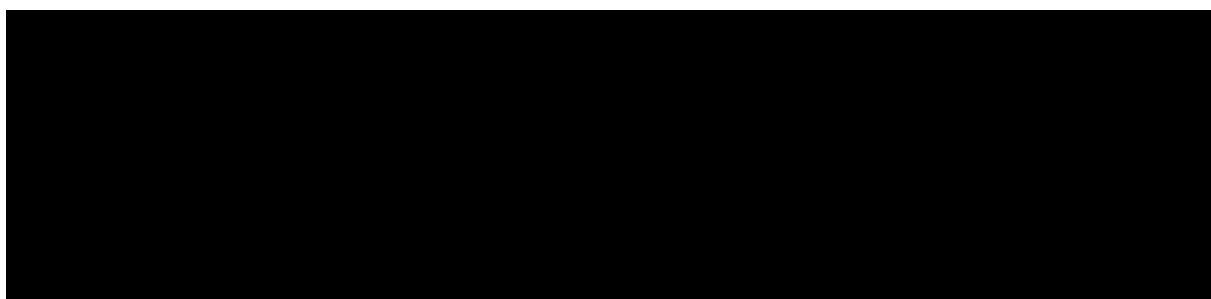
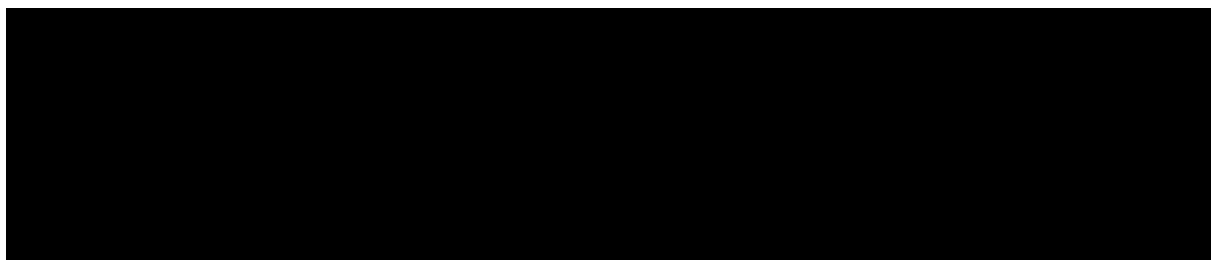


of the RTSC monthly variance report on Overhead and G&A as outlined by RTSC. The review is conducted monthly by the Polar Controller. The Controller reviews the costs charged to date to the Overhead and G&A accounts. If, through further research, errors are discovered, corrections are requested to be processed by RTSC accounting. Polar program personnel follow-up with RTSC accounting personnel until it is validated that the requested corrections have been processed in SAP. In addition, the Controller reviews the information to ensure that the forecast for the year is on track. The Controller provides variance comments, corrections and updated forecast information to RTSC.

RTSC – Polar agrees to develop a written procedure on the reconciliation between the Quarterly Expenditure Report, the SAP Accounting System and POFMS. The procedure will address the areas outlined in the audit report. The procedure will be created by 15 May 2006.

### **Monitor the Adequacy of Subcontractor's Accounting and Billing System**

On going supply chain management processes currently provide over-site of suppliers accounting and billing systems on the Polar contract. Examples of RTSC and RPSC processes and policies in place to monitor the adequacy of subcontractor's accounting and billing systems in the pre-award and post-award procurement cycle are listed below. Both buyers and subcontract administrators are responsible for documenting and monitoring the adequacy of the subcontractor's accounting and billing system.



If you have any questions or require any further information please contact me at



Sincerely,

[REDACTED]

cc:

[REDACTED]