



**National Science Foundation**

4201 Wilson Boulevard  
Arlington, Virginia 22230

Office of Inspector General

MEMORANDUM

DATE: March 31, 2005

TO: Donna Fortunat, Director  
Division of Contracts and Complex Agreements

Mary Santonastasso, Director  
Division of Institutional and Award Support

FROM: Deborah H. Cureton  
Associate Inspector General for Audit

SUBJECT: NSF OIG Audit Report No. OIG-05-1-005, Audit of Raytheon Polar Services Company's Costs Claimed for Fiscal Years 2000 to 2002

In response to your request for audit support of the Raytheon Polar Services Company Fiscal Year (FY) 2000 to 2003 incurred cost proposal submission audit of costs claimed under contract no. DACS-OPP-0000373, we have coordinated a series of audits to be performed by the Defense Contract Audit Agency, Herndon Branch Office. In order to provide you with the audit results, as they are available to us, we issued interim report no. OIG-04-1-010 in September 2004, which included a review of indirect costs for the period of FY 2000 to 2002. Attached is the final audit report for the period FY 2000 to 2002, which includes a review of all costs, both indirect and direct, claimed on the NSF contract and the response to the audit report from Raytheon Polar Services Company.

As summarized in our attached report and explained in the DCAA audit reports, which are included as an appendix, RPSC has claimed approximately [REDACTED] of direct and indirect costs that are not reimbursable under the NSF contract terms. Accordingly, the audit report questions [REDACTED] of the claimed costs. Specifically, DCAA questions [REDACTED] because RPSC charged this amount to NSF as direct costs when those costs should have been classified as Overhead and General and Administrative costs and recovered through RPSC's indirect cost rates, subject to contract ceilings. RPSC has standard procedures for classifying costs as Overhead or General and Administrative. Raytheon also claimed an additional [REDACTED] of Overhead and General and Administrative costs that exceed the limitations specified in the contract. When NSF awarded Raytheon the contract, Raytheon agreed to limit its claim for Overhead and General and Administrative costs. Also, [REDACTED] of Fringe Benefit costs are questioned because RPSC claimed budgeted Fringe Benefit costs instead of lower, actual Fringe

Benefit costs. Finally, an additional [REDACTED] are questioned because RPSC did not have documentation to show how the costs were allowable under the Federal Acquisition Regulations (FAR) or how the costs benefited the NSF contract.

We recommend that NSF disallow the questioned costs identified in this audit report in its review of RPSC's claim for final payment for the period FY 2000 to 2002; ensure that RPSC accurately classifies and records future Overhead and General and Administrative costs in RPSC's SAP accounting system, in accordance with its government approved disclosed accounting practices. We also recommend that NSF ensure that RPSC establish adequate policies and procedures to preclude charges exceeding its Overhead and General and Administrative ceilings; routinely adjust the amount of its claimed costs to reflect actual rather than budgeted Fringe Benefit costs; and maintain adequate documentation for all claimed costs in accordance with the FAR. Implementation of these recommendations will allow USAP costs to be reported correctly to NSF and be supported with adequate documentation.

In its response to a draft of this report, RPSC does not accept the DCAA questioned costs. RPSC contends that the costs are in accordance with instructions received from NSF, however, RPSC was unable to provide the DCAA auditors with documentation of the NSF instructions. The DCAA auditors contacted the NSF Contracting Officer, who stated that no instructions were provided to RPSC by NSF authorizing any deviation from RPSC's standard accounting practices. Therefore, the DCAA auditors did not revise their audit findings and recommendations based on RPSC's response to the draft audit report.

We are providing a copy of this memorandum to the Director of the Office of Polar Programs. The responsibility for audit resolution rests with the Division of Institution and Award Support, Cost Analysis/Audit Resolution Branch (CAAR). Accordingly, we ask that no action be taken concerning the report's findings without first consulting with CAAR at (703) 292-8244.

We thank your staff for the assistance that was extended to us during the audit. If you have any questions about this report, please contact Jannifer Jenkins at (703)-292-4996 or Kenneth Stagner at (303) 312-7655.

Attachment

cc: Thomas Cooley, Director, BFA  
Karl Erb, Director, OPP

**Audit of Raytheon Polar Services Company's Costs  
Claimed For Fiscal Years 2000 to 2002**

**March 31, 2005  
OIG-05-1-005**



**National Science Foundation  
Office of Inspector General**

## TABLE OF CONTENTS

TABLE OF CONTENTS	2
ACRONYMS	2
INTRODUCTION	3
OBJECTIVES, SCOPE, AND METHODOLOGY	3
AUDIT RESULTS	4
APPENDIX 1-Schedule of Audit Results by Fiscal Year	14
APPENDIX 2- DCAA Audit Reports	15
DCAA Audit Report No.6161-2000P10100001-RTSC Polar FY 2000 Incurred Cost Audit	
DCAA Audit Report No.6161-2001P10100001-RTSC Polar FY 2001 Incurred Cost Audit	
DCAA Audit Report No.6161-2002P10100001-RTSC Polar FY 2002 Incurred Cost Audit	

### ACRONYMS

CAS	Cost Accounting Standards
CASB	Cost Accounting Standards Board
FAR	Federal Acquisition Regulation
DCAA	Defense Contract Audit Agency
RTSC	Raytheon Technical Services Company
RPSC	Raytheon Polar Services Company
FY	Fiscal Year
DCMA	Defense Contract Management Agency
CFAO	Cognizant Federal Agency Official
CFR	Code Federal Regulations
WBS	Work Breakdown Structure
ODC	Other Direct Costs
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget

## INTRODUCTION

The attached Defense Contract Audit Agency (DCAA) Audit Reports dated February 11, 2005, details the results of its audit of \$ [REDACTED] million in costs claimed for payment by Raytheon Polar Services Company (RPSC) under NSF Contract No. OPP-0000373 from January 1, 2000 through December 31, 2002. The contract consists of a five-year base period and five option periods for a total of ten years and valued at \$1.1 billion. The charges claimed against the contract averages at \$ [REDACTED] million per year.

The attached DCAA Audit Reports finalize the interim DCAA Audit Report No. 6161-2004P10160205, previously transmitted to NSF under OIG Audit Report No. 04-1-010 dated September 30, 2004, that was limited to DCAA's audit of indirect costs claimed for payment by RPSC for FY 2000 to FY 2002. The attached audit report includes the results of the interim review and additionally addresses the direct costs claimed by RPSC from FY 2000 to FY 2002 and includes RPSC's response to the audit findings.

The United States Antarctic Program has, since 1971 when NSF assumed full responsibility, provided a permanent presence in Antarctica that oversees U.S. scientific interests. Today, the principal goals of the United States Antarctic Program are to (1) understand the Antarctic region and its ecosystems, (2) understand the effects of the region on global processes such as climate, as well as responses to those effects, and (3) use the region as a platform to study the upper atmosphere and space.

The Raytheon Polar Services Company (RPSC), headquartered in Centennial, Colorado is a business unit of the Raytheon Technical Services Company. Raytheon Polar Services Company is under contract to the National Science Foundation to provide science, operations, and maintenance support to sustain year-round research programs.

## OBJECTIVES, SCOPE, AND METHODOLOGY

The Federal Acquisition Regulation requires government contractors to submit annually a year-end final accounting of the costs incurred by the contractor in performing the work of the contract. At the request of NSF, we contracted with the Defense Contract Audit Agency (DCAA) to audit the costs claimed by RPSC in performance of the NSF contract from January 1, 2000 through December 31, 2002. During this period, RPSC claimed a total of \$363.8 million.

The purpose of auditing the costs was to determine whether the costs claimed by RPSC for the period were allowable, allocable, and reasonable in accordance with the Federal Acquisition Regulations and NSF's contract terms and conditions.

The DCAA audit was conducted in accordance with the Comptroller General's *Government Audit Standards* and included such tests of accounting records and other audit procedures necessary to fully address the audit objectives.

## AUDIT RESULTS

The attached Defense Contract Audit Agency (DCAA) Audit Reports dated February 11, 2005, details the results of its audit of costs claimed for payment by Raytheon Polar Services Company (RPSC) under NSF Contract No. O PP-0000373 from January 1, 2000 through December 31, 2002. The purpose of auditing the costs claimed was to determine the allowability, allocability and reasonableness of the costs as specified in the Federal Acquisition Regulations and the terms of the contract between NSF and Raytheon. The majority of RPSC's costs claimed are acceptable for payment. However, DCAA identified two RPSC internal control deficiencies that led to significant questioned costs concerning the proper classification of indirect costs in the RPSC accounting system and also the maintenance of accounting source documents supporting costs incurred using a Petty Cash fund in New Zealand.

DCAA questions \$33.4 million that RPSC claimed for payment (*see Appendix I, page 14, for a Schedule of Questioned Costs by Contract Year*). Of this amount, \$ [REDACTED] is questioned because RPSC charged this amount to NSF as direct costs when those costs should have been classified as Overhead and General and Administrative costs and recovered through RPSC's indirect cost rates, subject to contract ceilings. RPSC has standard procedures for classifying costs as Overhead or General and Administrative. Overhead is a cost for the management of direct labor, subcontractors, and direct materials used on the contract. General and Administrative costs are costs that Raytheon incurs for the general management and benefit of the corporation as a whole. Examples include Board of Directors compensation, SEC filings, or the costs of corporate jets. The US Government requires, under the rules of the Office of Federal Procurement Policy's Cost Accounting Standards Board, that contractors of Raytheon's size disclose detailed definitions of its Overhead and General and Administrative costs to the government. Upon approval of the disclosed definitions by the government, Raytheon agrees to only bill the government for costs according to the disclosed definitions. However, in the claims submitted to NSF for payment, Raytheon did not follow its disclosed definitions for billing indirect costs. Instead, Raytheon classified these costs as direct costs of contract performance and incorrectly claimed them for payment.

Raytheon also claimed an additional \$ [REDACTED] of Overhead and General and Administrative costs that exceed the limitations specified in the contract. When NSF awarded Raytheon the contract, Raytheon agreed to limit its claim for Overhead and General and Administrative costs. The annual Overhead limitation is an amount not to exceed [REDACTED] of the contract's direct labor amount. The annual General and Administrative limitation is an amount not to exceed [REDACTED] of all the costs of the contract [REDACTED]. Therefore, \$ [REDACTED] is questioned as

claims for payments that exceed the one percent contract limitation for Overhead costs and two percent limitation for General and Administrative costs.

Also, \$ [REDACTED] of Fringe Benefit costs are questioned. RPSC claimed budgeted fringe costs instead of lower, audited fringe costs. Although RPSC did not know what the eventual audited fringe cost amount would be at the time the claim was prepared, they are nevertheless only entitled to the audited amount and the difference was questioned.

Finally, an additional \$ [REDACTED] are questioned, principally related to a New Zealand Petty Cash fund, because RPSC did not have documentation to show how the costs were allowable under the FAR or how the costs benefited the NSF contract.

We recommend that NSF disallow the questioned costs identified in this audit report in its review of RPSC's claim for final payment for the period FY 2000 to 2002; ensure that RPSC accurately classifies and records future Overhead and General and Administrative costs in RPSC's SAP accounting system, in accordance with its government approved disclosed accounting practices; ensure that RPSC establishes adequate policies and procedures to preclude charges exceeding its Overhead and General and Administrative ceilings; ensure that RPSC establishes adequate policies and procedures to routinely adjust the amount of its claimed costs to reflect actual rather than budgeted fringe benefit costs; and ensure that RPSC establishes adequate policies and procedures to maintain adequate documentation of all its claimed costs in accordance with the FAR. Implementation of these recommendations will allow USAP costs to be reported correctly to NSF and be supported with adequate documentation.

In its response to a draft of this report, RPSC does not accept the DCAA questioned costs. RPSC contends that the questioned costs are in accordance with instructions received from NSF, however, RPSC was unable to provide the DCAA auditors with documentation of the NSF instructions. The DCAA auditors contacted the NSF Contracting Officer, who stated that no instructions were provided to RPSC by NSF authorizing any deviation from RPSC's standard accounting practices. Therefore, the DCAA auditors did not revise their audit findings and recommendations based on RPSC's response to the draft audit report.

**Summary Explanatory Notes Concerning the Schedule of Questioned Costs**

**Schedule of Questioned Costs**

<i>Description</i>	<i>Questioned by Auditors</i>	<i>Explanatory Note</i>
Overhead Claimed Over Contract Allowed Amount	██████████	1
General and Administrative Claimed Over Contract Allowed Amount	██████████	1
Facilities	██████████	2
Finance	██████████	2
Human Resources	██████████	2
Sign-on Bonus	██████████	2
RTSC and Corporate Home Office Allocations	██████████	2
Fringe Benefits	██████████	2
Direct Costs	██████████	3
<b>Total</b>	<b><u>\$33,425,115</u></b>	

**1. Overhead and General and Administrative Costs Claimed Above Contract Ceiling**

The contract between N SF and RPSC contains specific clauses limiting RPSC to reimbursement of Overhead costs at ██████████ of direct labor and General and Administrative costs at ██████████ of direct costs ██████████. (For an explanation of Overhead and General and Administrative Costs, See Box 1 on Page 7.) The auditors questioned \$██████████ of which \$██████████ is Overhead costs and \$3,165,792 is General and Administrative costs that RPSC claimed for payment for the first three years of contract performance in excess of the contract limits. (See Appendix 2, DCAA Reports, page 15) The identified questioned amounts are the sum of the claimed payment minus the ceiling amount.

Additionally, a portion of the costs questioned relates to the reclassification of Overhead and General and Administrative costs from direct to indirect as discussed in

Note 2 below. By classifying Overhead and General and Administrative costs as direct contract costs, RPSC overstates the direct costs which in turn incorrectly results in a larger total dollar amount allowable under the contract terms. The DCAA auditors recalculated the allowable total amount of Overhead and General and Administrative dollars RPSC could be paid using adjusted direct and indirect cost pools that did not contain misclassified Overhead and General and Administrative costs. All Overhead and General and Administrative costs RPSC claimed that are over this revised Overhead and General and Administrative limit are not eligible for reimbursement and payment by NSF as shown in the schedule above.

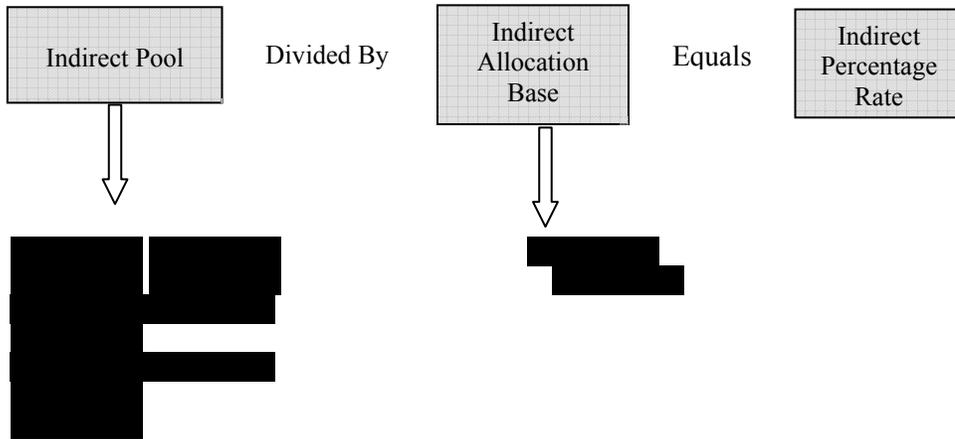
**BOX 1: Indirect Rates- Pools and Allocation Bases**

Indirect costs should be accumulated by logical (homogeneous) cost groupings (pools), with due consideration of the reasons for incurring such costs, and allocated to cost objectives in reasonable proportion to the benefit received (FAR 31.203(c)). The allocation bases used by the contractor for the allocation of indirect costs must be equitable and consistent with any applicable Cost Accounting Standard requirements, generally accepted accounting principles, and applicable provisions of the contract. The allocation base should: (1) be a reasonable measure of the activity of the indirect pool, (2) be measurable without undue expense, and except for residual G&A expense, (3) fluctuate concurrently with the activity which is the source of the cost.

**DEFINITIONS:**

[REDACTED]

**Example**



## 2. Indirect Costs Claimed as Direct Costs of Contract Performance In Violation of RPSC’s Own Disclosed Practices

In addition to Overhead and General and Administrative costs that RPSC claimed in excess of the contract terms in Note 1 above, the auditors identified costs that are not correctly identified as Overhead or General and Administrative. In its Cost Accounting Standard Board Disclosure Statement (*For an Explanation of the Cost Accounting Standards Board Disclosure Statement, See Box 2 on Page 8*) filed with Raytheon’s Cognizant Federal Agency, the Defense Contract Management Agency, RPSC states it will treat certain identified costs as either Direct, Overhead, or General and Administrative.

However, the auditors determined RPSC had incorrectly claimed Overhead and General and Administrative costs as Direct costs. The NSF contract contains limitations on the amount of Overhead and General and Administrative costs that may be claimed for payment but does not set limitations on the amount for Direct costs. Therefore, the auditors have reclassified the costs as either Overhead or General and Administrative as defined by Raytheon in its Cost Accounting Standard Board Disclosure Statement. RPSC incorrectly claimed these costs for payment as

direct costs. RPSC is not entitled to payment of these costs as direct costs. As discussed in Note 1 above, RPSC has already claimed \$ [REDACTED] of Overhead and General and Administrative costs that exceed the contract ceiling allowed amounts. Therefore, the amounts identified below are not only ineligible for payment as direct costs, but are also

### BOX 2: The Cost Accounting Standards Board Disclosure Statement and Standards

The original CASB was established in 1970 as an agency of Congress in accordance with a provision of Public Law 91379. It was authorized to (1) promulgate cost accounting standards designed to achieve uniformity and consistency in the cost accounting principles followed by defense contractors and subcontractors under Federal contracts in excess of \$100,000 and (2) establish regulations to require defense contractors and subcontractors, as a condition of contracting, to disclose in writing its cost accounting practices, to follow the disclosed practices consistently and to comply with duly promulgated cost accounting standards. The original CASB promulgated 19 standards and associated rules, regulations and interpretations. It went out of existence on September 30, 1980. On November 17, 1988, President Reagan signed Public Law 100-679 which reestablished the CASB. The new CASB is located within the Office of Federal Procurement Policy (OFPP) which is under the Office of Management and Budget (OMB). The CASB consists of five members: the Administrator of OFPP who is the Chairman and one member each from DoD, GSA, industry and the private sector (generally expected to be from the accounting profession).

Government contractors and subcontractors meeting certain criteria are required, as a condition of contracting, to disclose in writing its cost accounting practices. The Disclosure Statement has been designed to provide a narrative description of the contractor’s cost accounting practices to be used on federal contracts for those contractors required to file. The more important objectives of the disclosure requirement include:

- (1) establishing a clear understanding of the cost accounting practices the contractor intends to follow,
- (2) *defining costs charged directly to contracts* and disclosing the methods used to make such charges, and
- (3) delineating *the contractor’s methods of distinguishing direct costs from indirect costs and the basis for allocating indirect costs to contracts*. A narrative Disclosure Statement should minimize future controversies between contracting parties regarding whether the contractor has consistently followed the disclosed practices.

When a CFAO (Cognizant Federal Agency Official) determines that the contractor’s Disclosure Statement is adequate, it does not necessarily indicate that the CFAO is certifying that all cost accounting practices have been disclosed. It does indicate that those practices disclosed have been adequately described and the CFAO currently is not aware of any additional practices that should have been disclosed. The CFAO for RPSC is the Defense Contract Management Agency’s (DCMA) Divisional Administrative Contracting Officer for Raytheon Technical Services Company.

ineligible for payment as Overhead or General and Administrative costs because the allowable contract ceiling amount has already been exceeded.

**The remainder of page 9 redacted**

**Page 10 redacted in its entirety**

**REDACTED**

### **3. Direct Costs**

DCAA questioned \$ [REDACTED] of Miscellaneous, Miscellaneous-Petty Cash, Travel, Training, TC Load Direct Services, and VA Other Direct Costs, principally related to a New Zealand Petty Cash fund, because RPSC did not produce adequate accounting documentation for the auditors to review detailing how the costs were allowable under the FAR or how the costs benefited NSF's contract. Therefore, the bulk of these costs are questioned because they fail to meet the criteria of FAR 31.201-2(d), which states, "*A contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles in this subpart and agency supplements. The contracting officer may disallow all or part of a claimed cost which is inadequately supported.*" (See Appendix 2, DCAA Reports, page 15) Adequate accounting documentation allows auditors to evaluate a cost RPSC claims for payment to determine if the cost is "allowable" under the contract terms, is reasonable in its price which can be determined by comparing to catalogs and prior purchase history, and if the costs were incurred in connection with the performance of the NSF contract. Government contracting "best practices" from the FAR state RPSC

should not be reimbursed for costs that RPSC cannot prove are associated with the NSF contract and are adequately supported. The questioned direct costs are discussed below:

a. Miscellaneous

The DCAA auditors questioned \$ [REDACTED] of miscellaneous costs due to lack of adequate supporting documentation. (See Appendix 2, DC AA Reports, page 15) In accordance with the criteria of FAR 31.201-2(d), the DCAA auditors could not determine from the documentation presented by RPSC in support of the miscellaneous costs that they were allowable, reasonable, or incurred in support of the NSF contract.

b. Miscellaneous-Petty Cash

The DCAA auditors questioned \$ [REDACTED] of \$ [REDACTED] claimed miscellaneous-petty cash costs due to lack of adequate supporting documentation. The costs were principally incurred in New Zealand. (See Appendix 2, DCAA Reports, page 15) In accordance with the criteria of FAR 31.201-2(d), the DCAA auditors could not determine from the documentation presented by RPSC in support of the miscellaneous-petty cash costs that they were allowable, reasonable, or incurred in support of the NSF contract.

c. Travel

The DCAA auditors questioned \$ [REDACTED] of \$ [REDACTED] claimed travel costs due to lack of adequate supporting documentation. (See Appendix 2, DCAA Reports, page 15) In accordance with the criteria of FAR 31.201-2(d), the DCAA auditors could not determine from the documentation presented by RPSC in support of the travel costs that they were allowable, reasonable, or incurred in support of the NSF contract.

d. Training

The DCAA auditors questioned \$ [REDACTED] of \$ [REDACTED] claimed training costs due to lack of adequate supporting documentation. For example, RPSC included the costs for embroidered baseball caps as a training cost without explanation of how baseball caps contributed to the training objectives. (See Appendix 2, DCAA Reports, page 15) In accordance with the criteria of FAR 31.201-2(d), the DCAA auditors could not determine from the documentation presented by RPSC in support of the training costs that they were allowable, reasonable, or incurred in support of the NSF contract.

e. TC Load Direct Services and VA Other Direct Costs

The DCAA auditors questioned \$ [REDACTED] of \$ [REDACTED] claimed TC Load Direct Services costs and VA Other Direct Costs due to lack of adequate

supporting documentation. For example, RPSC included the costs for 550 baseball caps and 825 chef pants without explanation of how baseball caps or chef pants contributed to the contract. (*See Appendix 2, DCAA Reports, page 15*) In accordance with the criteria of FAR 31.201- 2(d), the DCAA auditors could not determine from the documentation presented by RPSC in support of the costs that they were allowable, reasonable, or incurred in support of the NSF contract.

**APPENDIX 1**

**Schedule of Audit Results by Fiscal Year**

The schedule below identifies the amounts claimed by fiscal year by RPSC in its Annual Incurred Cost Proposal Submission to NSF; DCAA’s calculation of the allowable costs incurred using the terms and conditions of the contract, the rules, regulations, and laws of the Federal Acquisition Regulation, the Cost Accounting Standards Board and RPSC’s accounting policies and procedures. DCAA questioned [REDACTED] of [REDACTED] claimed in RPSC’s certified Annual Incurred Cost Proposal Submission. The DCAA audit reports are presented by fiscal year, provide extensive detailed explanations of the improperly claimed costs, and are attached as Appendix 2 to this report.

**Summary Schedule of Questioned Costs**

<b>Description</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>Total</b>
Amount Claimed by RPSC in their Incurred Cost Proposal Submitted to NSF	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Auditor’s Determination of RPSC Cost in accordance with NSF Contract Terms	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Amount RPSC Asked for Payment that NSF Should Not Pay	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

**APPENDIX 2**

**Defense Contract Audit Agency Audit Reports**

Audit Report No.6161-2000P10100001-RTSC Polar FY 2000 Incurred Cost Audit  
Audit Report No.6161-2001P10100001- RTSC Polar FY 2001 Incurred Cost Audit  
Audit Report No.6161-2002P10100001- RTSC Polar FY 2002 Incurred Cost Audit  
All Dated February 11, 2005

Performed By  
Herndon Branch Office  
Reston, Virginia



**DEFENSE CONTRACT AUDIT AGENCY**  
**AUDIT REPORT NO. 06161-2000P10100001**



February 11, 2005

**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 315  
 Herndon, VA 20170  
 Telephone No. [REDACTED]  
 FAX No. [REDACTED]  
 E-mail Address [REDACTED]

**SUBJECT:** RTSC Polar FY 2000 Incurred Cost Audit

**REFERENCES:** Prime Contract Number: OPP-0000373  
*Relevant Dates: (See Page 45)*

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

**REPORT RELEASE RESTRICTIONS:** See Page 46

	<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	31
DCAA Personnel and Report Authorization	44
Audit Report Distribution and Restrictions	46
Appendixes	46



**Audit Report No. 6161-2000P10100001**

**SUBJECT OF AUDIT**

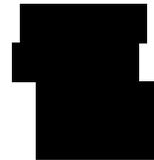
We examined the Raytheon Technical Services Company certified final indirect cost rate proposal and related books and records for the reimbursement of Polar Services FY 2000 incurred costs. The purpose of the examination was to determine allowability of direct and indirect costs and recommend contracting officer-determined indirect cost rates for FY 2000. The proposed rates apply to prime contract OPP-0000373. A copy of RTSC Certificate of Final Indirect Costs for the fiscal year examined is included as Appendix 1 to the report.

The incurred cost proposals are the responsibility of the contractor. Our responsibility is to express an opinion based on our examination.

**EXECUTIVE SUMMARY**

Our examination of the [REDACTED] proposal disclosed [REDACTED] of questioned costs, including the following significant items:

- Fringe benefit costs
- Overhead costs in excess of ceiling
- Unallowable costs
- G&A costs in excess of ceiling



**SIGNIFICANT ISSUES:**

1. The contractor is in noncompliance with CAS 418 and disclosed accounting practices (i.e., CAS disclosure statement).
2. We questioned [REDACTED] related to the application of audited RTSC fringe rates as they are applied to the Polar Services fringe benefit bases. The RTSC FY 2000 fringe rates have not yet been negotiated so the claimed rates were used to calculate the FY 2000 fringe indirect costs.
3. We questioned [REDACTED] of unallowable Other Direct Costs related to transaction testing of ODC, Christchurch petty cash, materials, and subcontract costs.
4. We questioned [REDACTED] of G&A costs in excess of the contract ceiling. The G&A rates were recalculated and compared to the claimed rates to determine the amounts in excess of the [REDACTED] contract ceiling rate.



**Audit Report No. 6161-2000P10100001**

5. We questioned [REDACTED] of overhead costs in excess of the contract ceiling. The overhead rates were recalculated and compared to the claimed rates to determine the amounts in excess of the 1% contract ceiling rate.
6. We reclassified [REDACTED] of Corporate and RTSC allocations that were charged direct to the contract as Other Direct Cost (ODC).
7. We reclassified [REDACTED] of ODC and [REDACTED] of labor costs related to locally incurred indirect functions such as [REDACTED].

**SCOPE OF AUDIT**

Except for the qualifications discussed below, we conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records evaluated are free of material misstatement. An examination includes:

- evaluating the contractor's internal controls, assessing control risk, and determining the extent of audit testing needed based on the control risk assessment;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records evaluated;
- assessing the accounting principles used and significant estimates made by the contractor;
- evaluating the overall data and records presentation; and
- determining the need for technical specialist assistance.

We evaluated the incurred cost proposal using the applicable requirements contained in the:

- Federal Acquisition Regulation, and
- Cost Accounting Standards

Raytheon Polar Services was under the Smith, Davis, and Gaylord (SDG) 1 accounting system for fiscal years 1999 through 2001. The SDG1 accounting system was converted to SAP on September 29<sup>th</sup> 2001. During the last quarter of FY 2001 and FY 2002, Raytheon Polar Services was on the SAP accounting system. The scope of our examination reflects our assessment of control risk and the risk of unallowable costs being included in the proposal and

## **Audit Report No. 6161-2000P10100001**

includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

The SDG1 accounting system was considered adequate for accumulating and reporting costs under government flexibly priced contracts. The SAP accounting system is considered inadequate in part based on the identification of several control objective deficiencies. Refer to the Contractor Organization and Systems section of this report for a further description of the contractor's systems. In addition, Raytheon Polar Services uses the Polar Operations Financial Management System (POFMS) to organize costs from the SAP accounting system and then bill the costs direct to the National Science Foundation. We have not reviewed POFMS or deemed the system adequate.

Our assessment of control risk reflects that we have not specifically tested the effectiveness of Raytheon Polar Services Systems and related internal controls. The scope of our examination reflects this assessment and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

### **RESULTS OF AUDIT**

#### **AUDITOR'S OPINION**

a. Indirect Rates. In our opinion, the contractor's proposed indirect rates are not acceptable as proposed. The examination results and recommendations are presented in Exhibit B of this report. The contractor did not accept our findings with respect to the questioned and reclassified costs.

b. Direct Costs. In our opinion, the contractor's claimed direct costs are acceptable as adjusted by our examination. We questioned and/or reclassified \$ [REDACTED] of direct costs proposed under the Polar Services contract. Questioned and/or reclassified direct costs by element are presented in Exhibit A of this report. Direct costs not questioned are provisionally approved pending final acceptance. The contractor did not accept our findings with respect to the questioned and reclassified costs. Final acceptance of amounts proposed under the Polar Services contract does not take place until performance under the contract is completed and accepted by the cognizant authorities and the audit responsibilities have been completed.

c. Indirect Costs Subject to Penalty. None of the FY 2000 claimed costs were deemed to be expressly unallowable and therefore subject to penalty.

A schedule of the claimed and audited overhead and G&A costs in excess of the contract's ceiling rates is included in Exhibit C of this report.

**Audit Report No. 6161-2000P10100001**

A schedule of the claimed and questioned costs by Work Breakdown Structure (WBS) is included in Exhibit D of this report.

We issued memorandums to the contractor detailing our audit exceptions to the major areas of claimed costs. The contractor provided a response on December 14, 2004 which is included as Appendix 2 of this report. The contractor disagrees with our audit findings. We summarized the contractor's response and provided our comments in Schedule B-1 regarding the locally incurred costs (Note 1) and Other Direct Costs – RTSC/Corporate allocations (Note 2). We have also summarized the contractor's response and provided our comments in Exhibit C regarding costs in excess of the indirect rate ceilings (Note 2).

**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED DIRECT COSTS  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2000 through December 31, 2000

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Direct Labor	██████████	██████████		Schedule A-1
Material				Schedule A-2
Subcontracts				
Other Direct Costs	██████████	██████████		Schedule A-3
Totals	██████████	██████████		

The claimed cost column represents amounts included in the contractor's certified indirect cost submission for the Polar Services contract. This column does not necessarily represent amounts that the contractor plans to claim for reimbursement under the contract.

Minor differences may exist in the supporting schedules due to rounding.

CONTRACTOR'S CLAIMED FY 2000 DIRECT LABOR COSTS AND RESULTS OF AUDIT

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Direct Labor	[REDACTED]	[REDACTED]		Note 1

EXPLANATORY NOTE:

1. Direct Labor

a. Summary of Conclusions:

We reclassified [REDACTED] of the contractor's claimed direct labor to the overhead pool based on its disclosed accounting practices.

b. Basis of Contractor's Costs:

The contractor's claimed labor costs are based on actual labor costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

The contractor recorded [REDACTED] of direct labor for those labor costs associated with the indirect functions of [REDACTED] using the General Management WBS.

[REDACTED]

Furthermore, the costs should be included in an indirect cost pool because the Polar Services contract has multiple final cost objectives (WBS). Many of these WBS are restricted and require the contractor to segregate, accumulate, and report costs by WBS. As a result of these circumstances, the contractor's normal accounting practice is to treat costs related to these indirect functions as an indirect cost.

In view of the above, we removed the claimed direct labor costs associated with these indirect functions from the overhead direct labor base and reclassified the costs to

[REDACTED]

the overhead pool consistent with the contractor's normal accounting practices. See Schedule B-1, Note 1 of this report for further discussion on our reclassification.

The reclassified direct labor costs associated with the various indirect functions are as follows:

<u>WBS</u>	<u>Description</u>	<u>Amount</u>
[REDACTED]	[REDACTED]	[REDACTED]
Total		[REDACTED]



**CONTRACTOR'S CLAIMED FY 2002 MATERIAL COSTS  
AND RESULTS OF AUDIT**

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
TC Non-Value Added ODC	██████████	██████████		Note 1
Totals	██████████	██████████		

EXPLANATORY NOTE:

1. TC Non Value Added ODC Costs

a. Summary of Conclusions:

We questioned ██████████ of TC Non-Value Added ODC costs associated with unallowable travel and related costs.

b. Basis of Contractor's Costs:

The contractor's claimed TC Non-Value Added ODC are related to material costs incurred in the SDG1 accounting system and transferred into the SAP accounting system under the TC Non-Value Added ODC cost element. These costs are based on actual costs incurred as represented in the contractor's accounting books and records.

c. Audit Evaluation:

We have reviewed the material costs for fiscal year 2000 and questioned the following amounts:

Misclassified ODC Costs	██████████	(1)
5KV Cable Assembly	██████████	(2)
Total	██████████	

(1) A stress management training course was misclassified and charged to the Other Materials account. The vendor of this training course was ██████████, totaling \$310, purchase order RM 70142-01, dated 4/24/00. This transaction should have been charged to training. A TR-07-S+ course was misclassified and charged to the Other Materials account. The vendor was ██████████ totaling ██████████ dated 8/22/00. This



transaction should have been charged to training. The total amount of [REDACTED] was projected to the universe resulting in questioned costs of [REDACTED]

(2) A 5KV Cable assembly was purchased and charged to the Other Materials account. The original check was voided and additional supporting documentation for this payment was not provided by the contractor. The vendor, [REDACTED], invoiced a total of [REDACTED] on invoice number [REDACTED], dated 11/30/2000. We have questioned this transaction due to the lack of adequate supporting documentation as required in FAR 31.201-2(d).

**CONTRACTOR’S CLAIMED OTHER DIRECT COSTS (ODC)  
AND RESULTS OF AUDIT**

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Ref.</u>
TC Load Direct Services/VA ODC	██████████	██████████	Note 1
Miscellaneous-Petty Cash	██████████	██████████	Note 2
TC Load Travel	██████████	██████████	Note 3
Other ODC	██████████	██████████	
	<hr/>	<hr/>	
Totals	██████████	██████████	
	<hr/>	<hr/>	

EXPLANATORY NOTES:

1. TC Load Direct Services and Value-Added ODC

a. Summary of Conclusions:

We reclassified ██████████ of Corporate and RTSC allocations to the overhead pool which the contractor had treated as ODC. We also reclassified ██████████ of ODC to the overhead pool related to locally incurred indirect functions which the contractor had treated as ODC. Lastly, we have questioned other ODC because the contractor was unable to provide adequate documentation to support its claimed costs.

b. Basis of Contractor’s Cost:

The contractor’s claimed costs are based on actual costs incurred as represented in its accounting books and records.



c. Audit Evaluation:

The results of our audit evaluation of TC Load Direct Services and Value-Added ODC are summarized as follows:

<u>Description</u>	<u>Amount</u>	
Reclassified Corporate/RTSC allocations	██████████	(1)
Reclassified indirect functions	██████████	(2)
Inadequate supporting documentation	██████████	(3)
Unreasonable costs	██████████	(4)
	<hr/>	
Total	██████████	
	<hr/> <hr/>	

(1) Corporate/RTSC allocations are treated as an overhead cost based on the contractor’s disclosed accounting practices. The contractor’s accounting system treated the costs as indirect, however the costs were subsequently reclassified as a direct charge to the Polar Services contract based on adjusting journal entries. We reclassified the FY 2000 Corporate allocations of ██████████ and FY 2000 RTSC allocations of ██████████ from the Miscellaneous ODC account to the overhead pool so these costs are treated consistently based on the contractor’s disclosed accounting practices. Our basis for this reclassification is further discussed in Schedule B-1, Note 2 of this report.

(2) We reclassified of ██████████ of ODC related to indirect support functions to the contractor’s overhead pool based on its disclosed accounting practices. Our basis for this reclassification is further discussed in Schedule B-1, Note 1 of this report.



The ODC that we have reclassified to overhead are summarized as follows:

<u>WBS</u>	<u>WBS Description</u>	<u>ODC</u>
[REDACTED]	[REDACTED]	[REDACTED]
Total		[REDACTED]

(3) We have questioned the following costs because the contractor did not provide adequate supporting documentation:

<u>Description</u>	<u>Month</u>	<u>JV No.</u>	<u>Purpose</u>	<u>Questioned</u>
Direct Miscellaneous	May-00	81	Employee Salaries	[REDACTED]
Direct Miscellaneous	June-00	139	Employee Salaries	[REDACTED]
Total				[REDACTED]

(4) We have questioned costs associated with Chef Pants and Souvenir Baseball Caps as unreasonable costs based on FAR 31.201-3:

<u>Description</u>	<u>Month</u>	<u>Purpose</u>	<u>Questioned</u>
Direct Miscellaneous	Nov-00	825 Pr Chef Pants	[REDACTED]
Direct Miscellaneous	June-00	550 Souvenir Baseball Caps	[REDACTED]
Total			[REDACTED]

2. Miscellaneous – Petty Cash



a. Summary of Conclusions:

We performed a statistical sample of journal entries and questioned 28.58% of the total 2000 petty cash of [REDACTED] which was processed through the Miscellaneous cost account. The total questioned costs for FY 2000 is [REDACTED].

b. Basis of Contractor's Cost:

The process for the Christchurch New Zealand petty cash includes maintaining all documentation on site in New Zealand as the costs are incurred. As needed, replenishment requests are forwarded to the Colorado office. Replenishment is then granted on an as needed basis. The replenishments are originally coded to the Miscellaneous account on a specific WBS. A reclassification of those costs occurs when journal entries are sent to Colorado for recording costs to cost objectives. Included in the journal entry are the New Zealand dollars incurred and the applicable exchange rates. The original ODC amounts recorded are not only ODC costs but all costs including subcontract, material and labor costs. Since these elements are recorded through the Miscellaneous account they became part of the population for petty cash related ODC and were tested accordingly.

c. Audit Evaluation:

A high volume of petty cash transactions prompted the contractor to request that we use two (2) complete months of petty cash transactions as our statistical sample in an effort to facilitate the transaction testing process. As a result, it was agreed to by the contractor, that the 2-month sample would be projected to a universe of Christchurch petty cash transactions for each of the fiscal years 2000 through 2002. On that basis, two (2) journal entries of petty cash transactions representing the months of April 2002 and November 2002 were selected for review. The journal entries were received from the contractor and were reviewed 100%. We projected the sample results to the 2000 universe of [REDACTED] resulting in questioned costs of [REDACTED]. Our sample selection and projection technique is further discussed in Audit Report No. 6161-2002P10100001, Polar FY 2002 Incurred Cost Audit.

3. TC Load Travel

a. Summary of Conclusions:

We questioned [REDACTED] related to direct travel costs because the contractor was unable to provide adequate documentation to support the claimed costs.

b. Basis of Contractor's Cost:

The contractor's transition load travel costs represent amounts that were incurred on the contractor's SDG1 accounting system and transferred into the SAP accounting system. These costs represent nine (9) months of incurred travel costs for fiscal year 2000.

c. Audit Evaluation:

We reviewed the contractor's FY 2000 travel transactions from the SDG1 accounting system detail as provided by the contractor. The following transactions were questioned because the contractor did not provide adequate documentation to support the claimed costs as required in FAR 31.201-2(d).

<u>Month</u>	<u>JV No.</u>	<u>Purpose</u>	<u>Questioned</u>
Sept-00	none	Employee travel/lodging	[REDACTED]
August-00	none	Employee travel/meals	[REDACTED]
Total			\$ [REDACTED]

**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED INDIRECT COSTS AND RATES  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2000 through December 31, 2000

	<u>Claimed</u>	<u>Questioned</u>	<u>Audited</u>	<u>Ref.</u>
<u>Overhead</u>				
Pool Base Rate	██████████	██████████	██████████	Schedule B-1
<u>Fringe Benefits</u>				
Pool Base	██████████	0	██████████	Schedule B-2
<u>G&amp;A</u>				
Pool Base Rate	██████████	██████████	██████████	Schedule B-3



**CONTRACTOR’S CLAIMED OVERHEAD POOL AND BASE COSTS  
AND RESULTS OF AUDIT**

	<u>Amount</u>	<u>Amount</u>	<u>Ref.</u>
<b>Claimed Overhead Pool</b>		[REDACTED]	
<u>Reclassified Costs:</u>			
Locally Incurred Costs	[REDACTED]		Note 1
Corporate & RTSC Allocations			Note 2
Total Questioned Pool Costs		[REDACTED]	
<b>Revised Pool</b>		[REDACTED]	
<b>Claimed Direct Labor Base</b>		[REDACTED]	
<u>Reclassified Costs:</u>			
Locally Incurred Labor Costs	[REDACTED]		Note 1
Total Questioned Base Costs		[REDACTED]	
<b>Revised Overhead Base</b>		[REDACTED]	

EXPLANATORY NOTES:

1. Locally Incurred Costs

a. Summary of Conclusions:

Our examination of locally incurred overhead costs revealed that the contractor did not always classify indirect functions and associated costs in accordance with its disclosed accounting practices. Instead, the contractor recorded all local support (indirect) functions to the Polar Services contract as direct costs. As a result, we reclassified Miscellaneous TC Load Direct Services/VA ODC of [REDACTED] and labor costs of [REDACTED] to the local overhead pool. These costs represent a significant amount that was booked direct to the contract using the General management WBS [REDACTED].

b. Basis of Contractor’s Cost:

The contractor’s claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:



The overhead pool was reviewed based on costs incurred and submitted in the contractor's incurred cost submission. Due to immateriality of the costs actually included in the overhead pool, no substantive testing was considered necessary or performed. We did note that the overhead pool costs appeared to be insignificant for a contract the size of the Polar Services contract. As a result, the contract and the original proposal were reviewed to determine contract requirements for support functions during the term of the contract. The contractor's disclosure statement (disclosed accounting practices) was also reviewed for the treatment of costs regarding the functions as described. According to the contract, the contractor is required to follow its disclosed accounting practices. NSF RFP No. OPP98001, Amendment No. 8 required the contractor's cost or pricing data to follow its Cost Accounting Standards Board Disclosure Statement (Form CASB DS-1). We confirmed that the contractor was recording all local support functions to the Polar Services contract as direct costs. The WBS listing was then reviewed to determine the various support functions that were indirect to the program. The significant support functions reviewed that were indirect to the program were [REDACTED].

Our reclassification of labor costs to the local overhead pool is discussed in further detail in Schedule A-1, Note 1 of this report. Our reclassification of the TC Load Direct Services and Value Added ODC is discussed in further detail in Schedule A-3, Note 1 of this report.

d. Contractor's Reaction:

The contractor does not agree that the locally incurred costs should be reclassified or disallowed. First, the contractor contends the parties expressly agreed that all locally incurred costs at Polar would be charged as direct costs to the General Management WBS and that they would not be subject to the overhead ceiling rate. Second, the Polar contract, not the WBS, is the final cost objective based on the CASB definition of a final cost objective. Individual tasks and CLINs under a contract do not necessarily represent final cost objectives nor is a contractor required to treat them as such for cost accounting purposes. Third, the contractor asserts that it is entitled to decide what a final accumulation point is in the accounting system. In the RTSC accumulation system, the Polar contract is the final cost objective according to the contractor.

The complete text of the contractor's response to our audit findings is included as Appendix 2 of this report.

e. Auditor's Comments:

CAS 418-40(a) requires Polar Services to have a written statement of accounting policies and practices for classifying costs as direct and indirect and to apply those policies and practices consistently. [REDACTED]

The Polar RFP required the contractor's cost or pricing data to follow its disclosed cost accounting practices (CAS disclosure statement). As a result, the customer did not require any costs normally classified as indirect (e.g., locally incurred overhead, Raytheon allocations or RTSC allocations) to be bid and accumulated as direct costs to the contract. The Polar RFP and its requirement for the contractor to follow disclosed cost accounting practices is consistent with the intent of the CASB when it published comments regarding this issue in Part II, Preambles to the Related Rules and Regulations Published by the Cost Accounting Standards Board, Preambles to Part 331, Contract Coverage, Comment No. 11, Additional requirements by agencies, states that:

*"...concern was expressed that Federal agencies might require the submission of cost proposals in ways inconsistent with the cost accounting practices of some or all of the potential offerors. The Board recognizes that this has happened in the past, but it notes that Board rules, regulations, and Cost Accounting Standards are to be used by relevant Federal agencies as well as by contractors and subcontractors, and it believes that henceforth requests for proposals must be fully consistent with such rules, regulations, and standards, although of course the Federal agency may ask for supplementary information to accompany proposals if this is needed to meet the agency's requirements."*

In addition, Polar Services notified the NSF Contracting Officer in a letter dated April 16, 2001 that it has liquidated advance payments in a manner inconsistent with its disclosure statement. Specifically, Polar Services classified some normally indirect expenses ([REDACTED]) as direct expenses. As a result, the NSF Contracting Officer requested the NSF OIG to review the basis for these classifications by Polar Services and advise if the proposed allocations are consistent with applicable RTSC disclosure statement(s) and otherwise represent allowable, allocable, and reasonable costs of contract performance.

Lastly, we believe that the Polar Services contract has multiple final cost objectives in the form of Work Breakdown Structures (WBS) based on the following:

(1) The contract has determined that the WBS is the final cost objective. There is a number of Restricted WBS such as SPSM, SPSE, JSOC, IS Infrastructure, MTRS, CTBT, ANSMET II, and IceCube that require the contractor to separately accumulate, report, and bill costs to NSF. For each WBS, the contractor even tracks and reports by: obligated, advances, expenditures, available funds, and unliquidated advances in its financial reports to NSF.

(2) The contractor has determined that the WBS is the final cost objective and one of the final accumulation points. The CASB definition of a final cost objective states, "Final cost objective means a cost objective which has allocated to it both direct and indirect costs, and in the contractor's accumulation system, is one of the final accumulation points." The contractor's accounting system segregates, accumulates, and bills costs by WBS which includes both direct and indirect costs as required by the CASB definition of a final cost objective. Also, the contractor seems to imply that a contract is always the final cost objective. We disagree because contracts may include/require task orders/delivery orders which will become the final cost objectives. In this case, a contractor typically segregates and accumulates its costs by task and/or delivery order and separately closes out each of these contracting actions instead of the contract as a whole. In addition, these task and/or delivery orders have their own ceiling amounts and the contractor is responsible for complying with those separate ceilings instead of any overall contract ceiling amount.

(3) The contractor applies a [REDACTED] rate to the base costs of each WBS for reporting and billing costs to NSF. As a result, the WBS has to be the final cost objective because CAS 410 requires that G&A expenses can only be allocated to final cost objectives. According to 48 CFR 9904.410-40(a), the basic requirement of CAS 410 is that G&A expenses be grouped into a separate indirect cost pool and allocated only to final cost objectives.

In summary, we believe the contractor is in noncompliance with CAS 418-40(a) and has not followed its disclosed accounting practices which is a requirement of that standard.

2. Corporate and RTSC Allocations

a. Summary of Conclusions:

a. Summary of Conclusions:

Our examination of the overhead pool for allocated costs from RTSC and Raytheon Corporate resulted in an increase in the overhead pool by [REDACTED] with a proportionate decrease in ODC. [REDACTED]

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

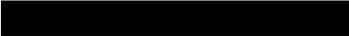
Polar Services demonstrated, through a prepared schedule and Annual Program Plan Cost Structure, the methodology used when recording allocated costs from Raytheon Corporate and Raytheon Technical Services (RTSC). Understanding the contractor's methodology and classification of costs direct vs. indirect is important since the contract includes a [REDACTED] ceiling rate.

It was determined that Polar Services was recording allocations direct to the contract using the General Management WBS. [REDACTED]

Our reclassification of the RTSC and Corporate allocations to the local overhead pool is discussed in further detail in Schedule A-3, Note 1 of this report. The Fiscal Year 2000 RTSC and Corporate allocations that we reclassified to the local overhead pool are shown in the tables below:

This table redacted in its entirety

=====  
=====



This table redacted in its entirety

\_\_\_\_\_  
\_\_\_\_\_

d. Contractor's Response:

The contractor asserts that the Polar business unit was not organized as a separate, stand-alone operation. As a result, Polar has in effect purchased certain systems and support services from RTSC and Raytheon (Corporate) and charged the costs for these systems and services to the Polar contract in the form of cost allocations. In addition, many types of cost that RTSC expected to incur locally at Polar and charge direct to the contract have instead been charged as flow-down costs from RTSC and Raytheon. If those allocated costs are treated as overhead, they cause the actual overhead costs to exceed the capped rates in a way that we do not believe either party anticipated or intended.

e. Auditor's Comments:

The contractor judgmentally selected certain RTSC and Corporate allocations (flow-down costs) to charge direct to the Polar contract while others remained indirect.

\_\_\_\_\_

\_\_\_\_\_ We reclassified to the overhead pool all flow down costs to the Polar business unit that the contractor elected to charge direct to the contract. We are not aware of any other RTSC business units that judgmentally select certain

\_\_\_\_\_

allocations and charge the associated costs direct to the contract. See Note 1 above for additional auditor comments on the contractor's response to our audit findings.

**CONTRACTOR'S CLAIMED FRINGE BENEFIT COSTS  
AND RESULTS OF AUDIT**

Fiscal Year 2000 Fringe Benefits					
<u>Union Code</u>	<u>Audited Rate</u>	<u>Labor Base</u>	<u>Audited Fringe</u>	<u>Claimed Fringe</u>	<u>Questioned Costs</u> (Note 1)
74	████	████			
RTA	████	████	████		
RTD	████	████	████		
RTK	████	████	████		
RTL	████	████	████		
RTP	████	████	████		
RTJ	████	████	████		
R01	████	████	████		
<b>Totals</b>		████	████	████	████

EXPLANATORY NOTE:

1. Fringe Benefits

a. Summary of Conclusions:

Questioned costs results from application of recommended/audited rates to the applicable fringe codes for Polar Services.

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

RTSC fringe costs are claimed in total in the RTSC 2000 Incurred Cost Submission. In an effort to confirm the total claimed, the labor costs have been segregated based on the applicable fringe bases. The RTSC audited fringe rates by union code for fiscal year 2000 were then applied to the associated labor bases and totaled for a total audited fringe burden of █████. The total applied fringe was then compared to



the claimed fringe from the contractor's incurred cost submissions for the same time frame of [REDACTED] resulting in an over application of claimed fringe costs of [REDACTED].

**CONTRACTOR'S CLAIMED G&A POOL/BASE COSTS  
AND RESULTS OF AUDIT**

<u>Description</u>	<u>Amount</u> (Note 1)	<u>Ref.</u>
Fringe Benefits in Excess of Claimed Rates	_____ [REDACTED]	Schedule B-2
G&A Base Adjustment	===== [REDACTED]	

EXPLANATORY NOTE:

1. G&A Expense

a. Summary of Conclusions:

We do not take any exception to the contractor's claimed G&A pool. However, we adjusted the contractor's claimed G&A base by [REDACTED].

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We did not perform any transaction testing on the claimed G&A pool because of the immaterial costs included in that pool and the [REDACTED] ceiling rate included in the contract. However, we adjusted the contractor's claimed G&A base in the amount of [REDACTED] as a result of our audit findings related to fringe benefits. All other questioned costs are subject to G&A burdening regardless of their allowability.

**Polar Services  
Raytheon Technical Services Company**

**COMPUTATION OF TOTAL COSTS IN EXCESS OF CONTRACT CEILINGS**

Polar Services Contract No. OPP-0000373  
Period January 1, 2000 through December 31, 2000

**These tables redacted in their entirety**

EXPLANATORY NOTES:

1. Overhead and G&A Costs in Excess of Ceiling – Without Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases, i.e., without any audit adjustments.

b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates but without including any audit adjustments. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

2. Overhead and G&A Costs in Excess of Ceiling – With Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates that includes the audit adjustments discussed in this report.

b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates that reflects our audit adjustments. These amounts represent the costs in excess of the ceiling rates based on incorporating the audit adjustments made to the contractor's indirect cost pools and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

d. Contractor's Response:

The contractor states that the amounts identified by DCAA as claimed over ceiling have not been claimed nor recovered under the contract. The costs are included in the actual incurred cost submission and they are charged to the contract because they are actual costs and they must be recorded on the books, but we are aware of no evidence that the costs have ever been included in any billing or otherwise claimed by Polar.

e. Auditor's Comments:

We disagree that the contractor has not billed nor recovered these over ceiling amounts under the contract. The contractor billed and recovered these amounts as direct costs as discussed in the exhibits to this report. We reclassified these direct costs [REDACTED] to overhead and computed the amounts that exceed the contract's ceiling rates.

**Polar Services  
Raytheon Technical Services Company**

**COMPUTATION OF CLAIMED AND QUESTIONED COSTS BY  
WORK BREAKDOWN STRUCTURE**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

<u>WBS</u>	<u>Description</u>	<u>Claimed</u>	<u>Questioned</u> (Note 1)	<u>Difference</u>
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This table redacted in its entirety

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Note 1: The significant portion of questioned/reclassified costs was for the indirect functions and Corporate/RTSC allocations related to the General Management WBS which we have questioned/reclassified specifically on those WBS structures. The balance of the questioned costs was allocated to all WBS based on costs incurred.



**CONTRACTOR ORGANIZATION AND SYSTEMS**

I. Organization

On December 18, 1997, Raytheon announced the completion of its merger with the Hughes Corporation and the formation of Raytheon Systems Company, a subsidiary of Raytheon Company. Raytheon Systems Company consisted of 5 segments, including Training and Services (T&S). Raytheon T&S segment, established January 1, 1999, combined the following legacy organizations: Rayserv (legacy Raytheon) and Hughes Technical Services Company, Raytheon Air Warfare Center, Raytheon STX, Raytheon Electronic Technologies Inc., Raytheon Data Systems, and Raytheon Training Inc., Training Operations and Commercial Training Divisions.

On October 18, 1999, Raytheon's T&S segment reorganized, transforming four (4) divisions into thirteen (13) separate business units. This new organization, renamed Raytheon Technical Services Company (RTSC), became fully operational January 3, 2000. In the new structure, the Raytheon Systems Company (RSC) was eliminated. Accordingly, RTSC and other Raytheon Company segments will report directly to the Corporate Executive Office. RTSC now has its headquarters in Reston, VA, [REDACTED]:

**The remainder of this page and all of pages 32 through 43 have been redacted in their entirety.**

**DCAA PERSONNEL**

Telephone	No.
Primary contact(s) regarding this audit: [REDACTED]	[REDACTED]
Other contact(s) regarding this audit report: [REDACTED] Branch Manager	[REDACTED]
Herndon Branch Office	FAX No. [REDACTED]
Herndon Branch Office	E-mail Address [REDACTED]

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

**RELEVANT DATES**

NSF OIG Request dated July 31, 2003

**AUDIT REPORT AUTHORIZED BY:**

/Signed/

[REDACTED]  
Branch Manager  
DCAA Herndon Branch Office

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(Copy furnished thru Contracting Officer)

RESTRICTIONS

**REDACTED**

# **APPENDIX 1**

**Fiscal Years 1999 and 2000  
Certificates of Final Indirect Costs**

**CERTIFICATE OF FINAL INDIRECT COSTS**

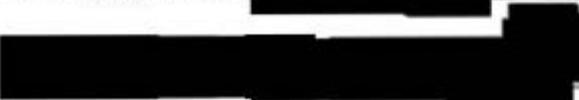
This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal ("Raytheon Technical Services Company 1999 Overhead Proposal" dated 31, October 2000) to establish final indirect rates for labor overhead, G&A, and fringe for fiscal year 1999, are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and
2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: Raytheon Technical Services Company

Signature: 

Name of Certifying Official: 

Title: 

Date of Execution: 31 Dec 00

## CERTIFICATE OF FINAL INDIRECT COSTS

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal ("Raytheon Technical Services Company 2000 Overhead Proposal" dated 30, June 2001) to establish final indirect rates for labor overhead, G&A, and fringe for fiscal year 2000, are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and
2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: Raytheon Technical Services Company

Signature:  \_\_\_\_\_

Name of Certifying Official:  \_\_\_\_\_

Title:  \_\_\_\_\_

Date of Execution: 30 JUNE 01



**DEFENSE CONTRACT AUDIT AGENCY**  
**AUDIT REPORT NO. 06161-2001P10100001**



February 11, 2005

**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 315  
Herndon, VA 20170  
Telephone No. [REDACTED]  
FAX No. [REDACTED]  
E-mail Address [REDACTED]

**SUBJECT:** RTSC Polar FY 2001 Incurred Cost Audit

**REFERENCES:** Prime Contract Number: OPP-0000373  
*Relevant Dates: (See Page 43)*

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

**REPORT RELEASE RESTRICTIONS:** See Page 44

	<u>Page</u>
<b>CONTENTS:</b> Subject of Audit	1
Executive Summary	1
Scope of Audit	2
Results of Audit	4
Contractor Organization and Systems	30
DCAA Personnel and Report Authorization	43
Audit Report Distribution and Restrictions	44
Appendixes	45



**Audit Report No. 6161-2001P10100001**

**SUBJECT OF AUDIT**

We examined the Raytheon Technical Services Company certified final indirect cost rate proposal and related books and records for the reimbursement of Polar Services FY 2001 incurred costs. The purpose of the examination was to determine allowability of direct and indirect costs and recommend contracting officer-determined indirect cost rates for FY 2001. The proposed rates apply to prime contract OPP-0000373. A copy of RTSC Certificate of Final Indirect Costs for the fiscal year examined is included as Appendix 1 to the report.

The incurred cost proposals are the responsibility of the contractor. Our responsibility is to express an opinion based on our examination.

**EXECUTIVE SUMMARY**

Our examination of the [REDACTED] million proposal disclosed [REDACTED] of questioned costs, including the following significant items:

- Fringe benefit costs [REDACTED]
- Overhead costs in excess of ceiling [REDACTED]
- Unallowable costs [REDACTED]
- G&A costs in excess of ceiling [REDACTED]

**SIGNIFICANT ISSUES:**

1. The contractor is in noncompliance with CAS 418 and disclosed accounting practices (i.e., CAS disclosure statement).
2. We questioned [REDACTED] related to the application of audited RTSC fringe rates as they are applied to the Polar Services fringe benefit bases. The RTSC FY 2001 fringe rates have not yet been negotiated so the claimed rates were used to calculate the FY 2001 fringe indirect costs.
3. We questioned [REDACTED] of unallowable Other Direct Costs related to transaction testing of ODC, Christchurch petty cash, materials, and subcontract costs.
4. We questioned [REDACTED] of G&A costs in excess of the contract ceiling. The G&A rates were recalculated and compared to the claimed rates to determine the amounts in excess of the [REDACTED] contract ceiling rate.

[REDACTED]

**Audit Report No. 6161-2001P10100001**

5. We questioned [REDACTED] of overhead costs in excess of the contract ceiling rate. The overhead rates were recalculated and compared to the claimed rates to determine the amounts in excess of the [REDACTED] contract ceiling rate.
6. We reclassified [REDACTED] of Corporate and RTSC allocations that were charged direct to the contract as Other Direct Costs (ODC).
7. We reclassified \$ [REDACTED] of ODC and [REDACTED] of labor costs related to locally incurred indirect functions such as [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED].

**SCOPE OF AUDIT**

Except for the qualifications discussed below, we conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records evaluated are free of material misstatement. An examination includes:

- evaluating the contractor's internal controls, assessing control risk, and determining the extent of audit testing needed based on the control risk assessment;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records evaluated;
- assessing the accounting principles used and significant estimates made by the contractor;
- evaluating the overall data and records presentation; and
- determining the need for technical specialist assistance.

We evaluated the incurred cost proposal using the applicable requirements contained in the:

- Federal Acquisition Regulation, and
- Cost Accounting Standards

Raytheon Polar Services was under the Smith, Davis, and Gaylord (SDG) 1 accounting system for fiscal years 1999 through 2001. The SDG1 accounting system was converted to SAP on September 29<sup>th</sup> 2001. During the last quarter of FY 2001 and FY 2002, Raytheon Polar Services was on the SAP accounting system. The scope of our examination reflects our assessment of control risk and the risk of unallowable costs being included in the proposal and

**Audit Report No. 6161-2001P10100001**

includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

The SDG1 accounting system was considered adequate for accumulating and reporting costs under government flexibly priced contracts. The SAP accounting system is considered inadequate in part based on the identification of several control objective deficiencies. Refer to the Contractor Organization and Systems section of this report for a further description of the contractor's systems. In addition, Raytheon Polar Services uses the Polar Operations Financial Management System (POFMS) to organize costs from the SAP accounting system and then bill the costs direct to the National Science Foundation. We have not reviewed POFMS or deemed the system adequate.

Our assessment of control risk reflects that we have not specifically tested the effectiveness of Raytheon Polar Services Systems and related internal controls. The scope of our examination reflects this assessment and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

**QUALIFICATION:**

An analysis of available documentation in the contractor's files applicable to proposed subcontract costs showed that evaluations by other DCAA offices are needed to reach a definitive conclusion regarding the acceptability of the proposed subcontract costs. We requested assist audits from the DCAA offices cognizant of the selected subcontracts. However, we did not receive the results in time for incorporation into this report. The results of the assist audits are considered essential to the conclusion of this examination. Therefore, the audit results are qualified to the extent that additional costs may be questioned based on the results of the assist audits.

On April 14, 2004 we requested an assist audit from the DCAA Seattle Branch Office to audit costs associated with Subcontract 450001341 which was awarded to Nana Services LLC. On June 22, 2004, we requested an assist audit from DCAA San Diego Branch Office to audit costs associated with Subcontract 4500016809 which was awarded to Biospherical Instruments. Upon receipt of the assist audit reports, we will provide a supplemental report if the assist audits include any findings.

**RESULTS OF AUDIT**

**AUDITOR'S OPINION**

a. Indirect Rates. In our opinion, the contractor's proposed indirect rates are not acceptable as proposed. The examination results and recommendations are presented in Exhibit B of this report. The contractor did not accept our findings with respect to the questioned and reclassified costs.

b. Direct Costs. In our opinion, except for the unresolved costs in the amount of [REDACTED] the contractor's claimed direct costs are acceptable as adjusted by our examination. We questioned and/or reclassified [REDACTED] of direct costs proposed under the Polar Services contract. Questioned and/or reclassified direct costs by element are presented in Exhibit A of this report. The contractor did not accept our findings with respect to questioned and reclassified costs. Direct costs not questioned are provisionally approved pending final acceptance. Final acceptance of amounts proposed under the Polar Services contract does not take place until performance under the contract is completed and accepted by the cognizant authorities and the audit responsibilities have been completed.

c. Indirect Costs Subject to Penalty. None of the FY 2001 claimed costs were deemed to be expressly unallowable and therefore subject to penalty.

A schedule of the claimed and audited overhead and G&A costs in excess of the contract's ceiling rates is included in Exhibit C of this report.

A schedule of the claimed and questioned costs by Work Breakdown Structure (WBS) is included in Exhibit D of this report.

We issued memorandums to the contractor detailing our audit exceptions to the major areas of claimed costs. The contractor provided a response on December 14, 2004 which is included as Appendix 2 of this report. The contractor disagrees with our audit findings. We summarized the contractor's response and provided our comments in Schedule B-1 regarding the locally incurred costs (Note 1) and Other Direct Costs – RTSC/Corporate allocations (Note 2). We have also summarized the contractor's response and provided our comments in Exhibit C regarding costs in excess of the indirect rate ceilings (Note 2).

**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED DIRECT COSTS  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2001 through December 31, 2001

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Direct Labor	[REDACTED]	[REDACTED]	[REDACTED]	Schedule A-1
Material	[REDACTED]	[REDACTED]	[REDACTED]	Schedule A-2
Subcontracts	[REDACTED]	[REDACTED]	[REDACTED]	Schedule A-3
Other Direct Costs	[REDACTED]	[REDACTED]	[REDACTED]	Schedule A-4
Totals	[REDACTED]	[REDACTED]	[REDACTED]	

The claimed cost column represents amounts included in the contractor's certified indirect cost submission for the Polar Services contract. This column does not necessarily represent amounts that the contractor plans to claim for reimbursement under the contract.

Minor differences may exist in the supporting schedules due to rounding.



CONTRACTOR'S CLAIMED FY 2001 DIRECT LABOR COSTS AND RESULTS OF AUDIT

<u>Element of Cost Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>	<u></u>
Direct Labor	[REDACTED]	[REDACTED]	\$0	Note 1

EXPLANATORY NOTE:

1. Direct Labor

a. Summary of Conclusions:

We reclassified [REDACTED] of the contractor's claimed direct labor associated with various indirect functions to the overhead pool based on its disclosed accounting practices.

b. Basis of Contractor's Costs:

The contractor's claimed labor costs are based on actual labor costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

The contractor recorded [REDACTED] as direct labor for those labor costs associated with the indirect functions of [REDACTED] using the General Management WBS.

[REDACTED]

Furthermore, the costs should be included in an indirect cost pool because the Polar Services contract has multiple final cost objectives (WBS). Many of these WBS are restricted and require the contractor to segregate, accumulate, and report costs by WBS. As a result of these circumstances, the contractor's normal accounting practice is to treat costs related to these indirect functions as an indirect cost.

[REDACTED]

In view of the above, we removed the claimed direct labor costs associated with these indirect functions from the overhead direct labor base and reclassified the costs to the overhead pool consistent with the contractor's normal accounting practices. See Schedule B-1, Note 1 of this report for further discussion on our reclassification.

The reclassified direct labor costs associated with the various indirect functions are as follows:

<u>WBS</u>	<u>Description</u>	<u>Amount</u>
[REDACTED]	[REDACTED]	[REDACTED]
Total		[REDACTED]



**CONTRACTOR’S CLAIMED FY 2002 MATERIAL COSTS  
AND RESULTS OF AUDIT**

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Equipment	[REDACTED]			
Other Material	[REDACTED]			
Purchased Parts	[REDACTED]			
Freight In	[REDACTED]			
TC Non-Value Added ODC	[REDACTED]	[REDACTED]		Note 1
Totals	[REDACTED]	[REDACTED]	[REDACTED]	

EXPLANATORY NOTE:

1. Other Material Costs

a. Summary of Conclusions:

We questioned [REDACTED] of TC Non-Value Added ODC associated with unallowable travel and related costs.

b. Basis of Contractor’s Costs:

The contractor’s claimed TC Non-Value Added ODC are related to material costs incurred in the SDG1 accounting system and transferred into the SAP accounting system under the TC Non-Value Added ODC cost element. These costs are based on actual costs incurred as represented in the contractor’s accounting books and records.

c. Audit Evaluation:

We reviewed invoice number 53798 dated October 25<sup>th</sup>, 2000 from the [REDACTED] [REDACTED] [REDACTED] totaling \$3,942. We have determined the contractor incorrectly classified these costs as subcontracts rather than ODC. Therefore, we have reclassified these costs to ODC and projected the reclassification to the universe totaling [REDACTED] for FY 2001.



**CONTRACTOR’S CLAIMED SUBCONTRACT COSTS  
AND RESULTS OF AUDIT**

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Subcontract	██████████		██████████	Note 1
Totals	██████████	██████████	██████████	

EXPLANATORY NOTES:

1. Subcontract

a. Summary of Conclusions:

We classified ██████████ of subcontract costs as unresolved pending receipt of requested assist audit reports from the cognizant DCAA offices.

b. Basis of Contractor’s Costs:

The contractor’s claimed subcontract costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We requested an assist audit from the Seattle Branch office on April 14<sup>th</sup>, 2004 for purchase order 4500013415. The purchase order was issued to ██████████, located at ██████████. Unresolved costs related to this purchase order totaled ██████████.

In addition, we requested an assist audit from the San Diego Branch office on June 22<sup>nd</sup>, 2004 for cost reimbursable purchase order 4500016809. The purchase order was issued to ██████████. Unresolved costs related to this purchase order totaled ██████████.



**CONTRACTOR’S CLAIMED OTHER DIRECT COSTS (ODC)  
AND RESULTS OF AUDIT**

<u>Element of Cost Claimed</u>	_____	<u>Questioned Ref.</u> _____
Contract Bonus	██████████	██████████
Miscellaneous	██████████	██████████ Note 1
Miscellaneous-Petty Cash	██████████	██████████ Note 2
Travel	██████████	██████████
Training	██████████	██████████
Professional Services	██████████	██████████
TC Load Direct Services/ VA ODC	██████████	██████████
TC Load Travel	██████████	██████████ Note 3
Other ODC	██████████	██████████
Totals	██████████	██████████

EXPLANATORY NOTES:

1. Miscellaneous

a. Summary of Conclusions:

We reclassified ██████████ of Corporate and RTSC allocations to the overhead pool which the contractor had treated as ODC. We also reclassified ██████████ of ODC to the overhead pool related to locally incurred indirect functions which the contractor had treated as ODC. Lastly, we questioned and subsequently increased ODC by \$23,850 for ODC costs that were booked as a subcontract instead of an ODC.

b. Basis of Contractor’s Cost:

The contractor’s claimed Miscellaneous ODC is based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

The results of our audit evaluation of Miscellaneous ODC are summarized as follows:



<u>Description</u>	<u>Amount</u>
Reclassified Corporate/RTSC allocations	[REDACTED] (1)
Reclassified indirect functions	[REDACTED] (2)
Inadequate supporting documentation	[REDACTED] (3)
	<hr/>
Total	[REDACTED] <hr/> <hr/>

(1) Corporate/RTSC allocations are treated as an overhead cost based on the contractor's disclosed accounting practices. The contractor's accounting system treated the costs as indirect, however the costs were subsequently reclassified as a direct charge to the Polar Services contract based on adjusting journal entries. For example, Document No.100672385 reclassified [REDACTED] of Corporate/RTSC allocations to the Miscellaneous ODC account. We reclassified the FY 2001 Corporate allocations of \$372,828 and FY 2001 RTSC allocations of [REDACTED] from the Miscellaneous ODC account to the overhead pool so these costs are treated consistently based on the contractor's disclosed accounting practices. Our basis for this reclassification is further discussed in Schedule B-1, Note 2 of this report.

(2) We reclassified of [REDACTED] of ODC related to indirect support functions to the contractor's overhead pool based on its disclosed accounting practices. Our basis for this reclassification is further discussed in Schedule B-1, Note 1 of this report.

The ODC that we have reclassified to overhead is summarized as follows:

<u>WBS WBS</u>	<u>Description</u>	<u>ODC</u>
[REDACTED]	[REDACTED]	[REDACTED]
		<hr/>
Total		[REDACTED] <hr/> <hr/>



(3) Represents the misclassification of [REDACTED] of material costs that should have been recorded as a miscellaneous ODC. These costs were detailed in Schedule A-2, Note 1 of this report.

2. Miscellaneous – Petty Cash

a. Summary of Conclusions:

We performed a statistical sample of journal entries and questioned 28.58% of the total 2001 petty cash of [REDACTED] which was processed through the Miscellaneous cost account.

b. Basis of Contractor's Cost:

The process for the Christchurch New Zealand petty cash includes maintaining all documentation on site in New Zealand as the costs are incurred. As needed, replenishment requests are forwarded to the Colorado office. Replenishment is then granted on an as needed basis. The replenishments are originally coded to the Miscellaneous account on a specific WBS. A reclassification of those costs occurs when journal entries are sent to Colorado for recording costs to cost objectives. Included in the journal entry are the New Zealand dollars incurred and the applicable exchange rates. The original ODC amounts recorded are not only ODC costs but all costs including subcontract, material and labor costs. Since these elements are recorded through the Miscellaneous account they became part of the population for petty cash related ODC and were tested accordingly.

c. Audit Evaluation:

A high volume of petty cash transactions prompted the contractor to request that we use two (2) complete months of petty cash transactions as our statistical sample in an effort to facilitate the transaction testing process. As a result, it was agreed to by the contractor, that the 2-month sample would be projected to a universe of Christchurch petty cash transactions for each of the fiscal years 2000 through 2002. On that basis, two (2) journal entries of petty cash transactions representing the months of April 2002 and November 2002 were selected for review. The journal entries were received from the contractor and were reviewed 100%. We projected the sample results to the 2001 universe of [REDACTED] resulting in questioned costs of [REDACTED]. Our sample selection and projection technique is further discussed in Audit Report No. 6161-2002P10100001, Polar FY 2002 Incurred Cost Audit.

3. TC Load Travel



a. Summary of Conclusions:

We questioned \$18,409 related to direct travel costs because the contractor did not provide adequate documentation to support the claimed costs.

b. Basis of Contractor's Cost:

The contractor's transition cost load travel costs represent costs that were incurred on the contractor's SDG1 accounting system and transferred into the SAP accounting system. These costs represent nine (9) months of incurred travel costs.

c. Audit Evaluation:

We reviewed the contractor's FY 2001 travel transactions from the SDG1 accounting system detail as provided by the contractor. The following transactions were questioned because the contractor did not provide adequate documentation to support the claimed costs as required in FAR 31.201-2(d).

<u>Month JV</u>	<u>No.</u>	<u>Purpose</u>	<u>Questioned</u>
May 2001	351	Employee travel	\$646
Sept. 2001	None	Employee travel	12,232
Sept. 2001	None	Employee travel	<u>5,531</u>
Total			<u>\$18,409</u>



**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED INDIRECT COSTS AND RATES  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2001 through December 31, 2001

	<u>Claimed</u>		<u>Questioned</u>		<u>Audited</u> Ref.	
<b><u>Overhead</u></b>						
Pool	████████		████████		████████	Schedule B-1
Base	████████		████████		████████	
Rate	████████		████████		████████	
<b><u>Fringe Benefits</u></b>						
Pool	████████		████████		████████	Schedule B-2
Base	████████		████████		████████	
<b><u>G&amp;A</u></b>						
Pool	████████		████████		████████	Schedule B-3
Base	████████		████████		████████	
Rate	████████		████████		████████	



**CONTRACTOR’S CLAIMED OVERHEAD POOL AND BASE COSTS  
AND RESULTS OF AUDIT**

	Am <u>ount</u>	Amount Ref.	
<b>Claimed Overhead Pool</b>		[REDACTED]	
<u>Reclassified Costs:</u>			
Locally Incurred Costs	[REDACTED]		Note 1
Corporate & RTSC Allocations	[REDACTED]		Note 2
Total Questioned Pool Costs		[REDACTED]	
<b>Revised Pool</b>		[REDACTED]	
<b>Claimed Direct Labor Base</b>			
<u>Reclassified Costs:</u>			
Locally Incurred Labor Costs	[REDACTED]		Note 1
Total Questioned Base Costs		[REDACTED]	
<b>Revised Overhead Base</b>		[REDACTED]	

EXPLANATORY NOTES:

1. Locally Incurred Costs

a. Summary of Conclusions:

Our examination of locally incurred overhead costs revealed that the contractor did not always classify indirect functions and associated costs in accordance with its disclosed accounting practices. Instead, the contractor recorded all local support (indirect) functions to the Polar Services contract as direct costs. As a result, we reclassified Miscellaneous ODC of [REDACTED] and labor costs of [REDACTED] to the local overhead pool. These costs represented a significant amount that were booked direct to the contract using the General Management WBS (PS-X0).

b. Basis of Contractor’s Cost:

The contractor’s claimed costs are based on actual costs incurred as represented in its accounting books and records.



c. Audit Evaluation:

The overhead pool was reviewed based on costs incurred and submitted in the contractor's incurred cost submission. Due to immateriality of the costs actually included in the overhead pool, no substantive testing was considered necessary or performed. We did note that the overhead pool costs appeared to be insignificant for a contract the size of the Polar Services contract. As a result, the contract and the original proposal were reviewed to determine contract requirements for support functions during the term of the contract. The contractor's disclosure statement (disclosed accounting practices) was also reviewed for the treatment of costs regarding the functions as described. According to the contract, the contractor is required to follow its disclosed accounting practices. NSF RFP No. OPP98001, Amendment No. 8 required the contractor's cost or pricing data to follow its Cost Accounting Standards Board Disclosure Statement (Form CASB DS-1). We confirmed that the contractor was recording all local support functions to the Polar Services contract as direct costs. The WBS listing was then reviewed to determine the various support functions that were indirect to the program. The significant support functions reviewed that were indirect to the program were [REDACTED]

Our reclassification of labor costs to the local overhead pool is discussed in further detail in Schedule A-1, Note 1 of this report. Our reclassification of the Miscellaneous ODC is discussed in further detail in Schedule A-4, Note 1 of this report.

d. Contractor's Reaction:

The contractor does not agree that the locally incurred costs should be reclassified or disallowed. First, the contractor contends the parties expressly agreed that all locally incurred costs at Polar would be charged as direct costs to the General Management WBS and that they would not be subject to the overhead ceiling rate. Second, the Polar contract, not the WBS, is the final cost objective based on the CASB definition of a final cost objective. Individual tasks and CLINs under a contract do not necessarily represent final cost objectives nor is a contractor required to treat them as such for cost accounting purposes. Third, the contractor asserts that its entitled to decide what a final accumulation point is in the accounting system. In the RTSC accumulation system, the Polar contract is the final cost objective according to the contractor.

The complete text of the contractor's response to our audit findings is included as Appendix 2 of this report.

e. Auditor's Comments:

CAS 418-40(a) requires Polar Services to have a written statement of accounting policies and practices for classifying costs as direct and indirect and to apply those policies and practices consistently.

[REDACTED]

The Polar RFP required the contractor's cost or pricing data to follow its disclosed cost accounting practices (CAS disclosure statement). As a result, the RFP (procurement) did not require any costs normally classified as indirect (e.g., locally incurred overhead, Raytheon allocations or RTSC allocations) to be treated as direct costs to the contract. The Polar RFP and its requirement for the contractor to follow disclosed cost accounting practices is consistent with the intent of the CASB when it published comments regarding this issue in Part II, Preambles to the Related Rules and Regulations Published by the Cost Accounting Standards Board, Preambles to Part 331, Contract Coverage, Comment No. 11, *Additional requirements by agencies*, states that:

*"...concern was expressed that Federal agencies might require the submission of cost proposals in ways inconsistent with the cost accounting practices of some or all of the potential offerors. The Board recognizes that this has happened in the past, but it notes that Board rules, regulations, and Cost Accounting Standards are to be used by relevant Federal agencies as well as by contractors and subcontractors, and it believes that henceforth requests for proposals must be fully consistent with such rules, regulations, and standards, although of course the Federal agency may ask for supplementary information to accompany proposals if this is needed to meet the agency's requirements."*

[REDACTED]

[REDACTED]. Specifically, Polar Services classified some normally indirect expenses [REDACTED] as direct expenses. As a result, the NSF Contracting Officer requested the NSF OIG to review the basis for these classifications by Polar



Services and advise if the proposed allocations are consistent with applicable RTSC disclosure statement(s) and otherwise represent allowable, allocable, and reasonable costs of contract performance.

Lastly, we believe that the Polar Services contract has multiple final cost objectives in the form of Work Breakdown Structures (WBS) based on the following:

(1) The contract has determined that the WBS is the final cost objective. There is a number of Restricted WBS such as SPSM, SPSE, JSOC, IS Infrastructure, MTRS, CTBT, ANSMET II, and IceCube that require the contractor to separately accumulate, report, and bill costs to NSF. For each WBS, the contractor even tracks and reports by: obligated, advances, expenditures, available funds, and unliquidated advances in its financial reports to NSF.

(2) The contractor has determined that the WBS is the final cost objective and one of the final accumulation points. The CASB definition of a final cost objective states, "Final cost objective means a cost objective which has allocated to it both direct and indirect costs, and in the contractor's accumulation system, is one of the final accumulation points." The contractor's accounting system segregates, accumulates, and bills costs by WBS which includes both direct and indirect costs as required by the CASB definition of a final cost objective. Also, the contractor seems to imply that a contract is always the final cost objective. We disagree with the contractor because contracts may include/require task orders/delivery orders which will become the final cost objectives. In this case, a contractor typically segregates and accumulates its costs by task and/or delivery order and separately closes out each of these contracting actions instead of the contract as a whole. In addition, these task and/or delivery orders have their own ceiling amounts and the contractor is responsible for complying with those separate ceilings instead of any overall contract ceiling amount.

(3) The contractor applies a [REDACTED] rate to the base costs of each WBS for reporting and billing costs to NSF. As a result, the WBS has to be the final cost objective because CAS 410 requires that G&A expenses can only be allocated to final cost objectives. According to 48 CFR 9904.410-40(a), the basic requirement of CAS 410 is that G&A expenses be grouped into a separate indirect cost pool and allocated only to final cost objectives.

In summary, we believe the contractor is in noncompliance with CAS 418-40(a) and has not followed its disclosed accounting practices which is a requirement of that standard.

2. Corporate and RTSC Allocations

a. Summary of Conclusions:

Our examination of the overhead pool for allocated costs from RTSC and Raytheon Corporate resulted in an increase in the overhead pool by [REDACTED] with a proportionate decrease in ODC. [REDACTED]

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

Polar Services demonstrated, through a prepared schedule and Annual Program Plan Cost Structure, the methodology used when recording allocated costs from Raytheon Corporate and Raytheon Technical Services (RTSC). Understanding the contractor's methodology and classification of costs direct vs. indirect is important since the contract includes a [REDACTED] ceiling rate.

It was determined that Polar Services was recording allocations direct to the contract using the General Management WBS. [REDACTED]

Our reclassification of the RTSC and Corporate allocations to the local overhead pool is discussed in further detail in Schedule A-4, Note 1 of this report. The Fiscal Year 2001 RTSC and Corporate allocations that we reclassified to the local overhead pool are shown in the tables below:



**Page 20 has been redacted in its entirety**

**Corporate Allocations**

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d. Contractor's Response:

The contractor asserts that the Polar business unit was not organized as a separate, stand-alone operation. As a result, Polar has in effect purchased certain systems and support services from RTSC and Raytheon (Corporate) and charged the costs for these systems and services to the Polar contract in the form of cost allocations.

[REDACTED]

e. Auditor's Comments:

The contractor judgmentally selected certain RTSC and Corporate allocations (flow-down costs) to charge direct to the Polar contract while others remained indirect.

[REDACTED]. We reclassified to the overhead pool all flow down costs to the Polar business unit that the contractor elected to charge direct to the contract. We are not aware of any other RTSC business units that judgmentally select certain allocations and charge the associated costs direct to the contract. See Note 1 above for additional auditor comments on the contractor's response to our audit findings.





EXPLANATORY NOTE:

1. Fringe Burden

a. Summary of Conclusions:

Questioned costs results from application of recommended/audited rates to the applicable fringe codes for Polar Services.

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

RTSC fringe costs are claimed in total in the RTSC 2001 Incurred Cost Submission. In an effort to confirm the total claimed, the labor costs have been segregated based on the applicable fringe bases. The RTSC audited fringe rates by union code for fiscal year 2001 were then applied to the associated labor bases and totaled for a total audited fringe burden of [REDACTED]. The total applied fringe was then compared to the claimed fringe from the contractor's incurred cost submissions for the same time frame of [REDACTED]. resulting in an over application of claimed fringe costs of [REDACTED].



CONTRACTOR'S CLAIMED G&A POOL/BASE COSTS  
AND RESULTS OF AUDIT

<u>Description</u> Amount	_____ Ref.	_____
(Note	1)	
Fringe Benefits in Excess of Claimed Rates	_____ [REDACTED].	Schedule B-2
G&A Base Adjustment	_____ [REDACTED].	

EXPLANATORY NOTE:

1. G&A \_\_\_\_\_ Expense

a. Summary of Conclusions:

We do not take any exception to the contractor's claimed G&A pool. However, we adjusted the contractor's claimed G&A base by [REDACTED].

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We did not perform any transaction testing on the claimed G&A pool because of the immaterial costs included in that pool and the [REDACTED] ceiling rate included in the contract. However, we adjusted the contractor's claimed G&A base in the amount of [REDACTED] as a result of our audit findings related to fringe benefits. All other questioned costs are subject to G&A burdening regardless of their allowability.



**Polar Services  
Raytheon Technical Services Company**

**COMPUTATION OF TOTAL COSTS IN EXCESS OF CONTRACT CEILINGS**

Polar Services Contract No. OPP-0000373  
Period January 1, 2001 through December 31, 2001

**Chart has been Redacted**

**Chart has been Redacted**

EXPLANATORY NOTES:

1. Overhead and G&A Costs in Excess of Ceiling – Without Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases, i.e., without any audit adjustments.



b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates but without including any audit adjustments. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

2. Overhead and G&A Costs in Excess of Ceiling – With Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates that includes the audit adjustments discussed in this report.

b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates that reflects our audit adjustments. These amounts represent the costs in excess of the ceiling rates based on incorporating the audit adjustments made to the contractor's indirect cost pools and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

d. Contractor's Response:

The contractor states that the amounts identified by DCAA as claimed over ceiling have not been claimed nor recovered under the contract. The costs are included in the actual incurred cost submission and they are charged to the contract because they are



actual costs and they must be recorded on the books, but we are aware of no evidence that the costs have ever been included in any billing or otherwise claimed by Polar.

e. Auditor's Comments:

We disagree that the contractor has not billed nor recovered these over ceiling amounts under the contract. The contractor billed and recovered these amounts as direct costs as discussed in the exhibits to this report. We reclassified these direct costs [REDACTED] [REDACTED] to overhead and computed the amounts that exceed the contract's ceiling rates.

**Polar Services  
Raytheon Technical Services Company**

**COMPUTATION OF CLAIMED AND QUESTIONED COSTS BY  
WORK BREAKDOWN STRUCTURE**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

<u>WBS Description</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Difference</u>
		(Note 1)	
PS-00	████████████████████	████████	████████
PS-01	████████████████████	████████	████████
PS-02	████████████████████	████████	████████
PS-03	████████████████████	████████	████████
PS-04	████████████████████	████████	████████
PS-05	████████████████████	████████	████████
PS-07	████████████████████	████████	████████
PS-08	████████████████████	████████	████████
PS-09	████████████████████	████████	████████
PS-20	████████████████████	████████	████████
PS-21	████████████████████	████████	████████
PS-22	████████████████████	████████	████████
PS-23	████████████████████	████████	████████
PS-24	████████████████████	████████	████████
PS-25	████████████████████	████████	████████
PS-27	████████████████████	████████	████████
Totals		████████	████████

Note 1: The significant portion of questioned costs is for the indirect functions and Corporate/RTSC allocations related to the General Management WBS and questioned specifically on those WBS structures. The balance of the questioned costs was allocated to all WBS based on costs incurred.



**CONTRACTOR ORGANIZATION AND SYSTEMS**

I. Organization.

On December 18, 1997, Raytheon announced the completion of its merger with the Hughes Corporation and the formation of Raytheon Systems Company, a subsidiary of Raytheon Company. Raytheon Systems Company consisted of 5 segments, including Training and Services (T&S). Raytheon T&S segment, established January 1, 1999, combined the following legacy organizations: Rayserv (legacy Raytheon) and Hughes Technical Services Company, Raytheon Air Warfare Center, Raytheon STX, Raytheon Electronic Technologies Inc., Raytheon Data Systems, and Raytheon Training Inc., Training Operations and Commercial Training Divisions.

On October 18, 1999, Raytheon's T&S segment reorganized, transforming four (4) divisions into thirteen (13) separate business units. This new organization, renamed Raytheon Technical Services Company (RTSC), became fully operational January 3, 2000. In the new structure, the Raytheon Systems Company (RSC) was eliminated. Accordingly, RTSC and other Raytheon Company segments will report directly to the Corporate Executive Office. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Pages 31 – 42 have been Redacted**

**Audit Report No. 6161-2001P10100001**

**DCAA PERSONNEL**

Telephone	No.
Primary contact(s) regarding this audit: [REDACTED]	[REDACTED]

Other contact(s) regarding this audit report: [REDACTED] Branch Manager	[REDACTED]
--	------------

	FAX No.
Herndon Branch Office	[REDACTED]

	E-mail Address
Herndon Branch Office	[REDACTED]

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

***RELEVANT DATES***

NSF OIG Request dated July 31, 2003

**AUDIT REPORT AUTHORIZED BY:**

/Signed/

[REDACTED]  
Branch Manager  
DCAA Herndon Branch Office



**Audit Report No. 6161-2001P10100001**

**AUDIT REPORT DISTRIBUTION AND RESTRICTIONS**

DISTRIBUTION

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

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Kstagner@nsf.gov  
\_\_\_\_\_  
Telephone No.  
(303) 312-7655

Polar Services  
Raytheon Technical Services Company  
12160 Sunrise Valley Drive  
Reston, VA 20191  
(Copy furnished thru NSF Contracting Officer)

RESTRICTIONS

1. 
2. 
3. 



# **APPENDIX 1**

## **Certificate of Final Indirect Costs**

## CERTIFICATE OF FINAL INDIRECT COSTS

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal ("Raytheon Technical Services Company 2001 Overhead Proposal" dated December 18, 2002) to establish final indirect rates for labor overhead, G&A, and fringe for fiscal year 2001, are allowable in accordance with the cost principles of the Federal Acquisition regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and
  
2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: Raytheon Technical Services Company

Signature: \_\_\_\_\_

Name of Certifying Official: \_\_\_\_\_

Title: \_\_\_\_\_

Date of Execution: 12/18/02



**DEFENSE CONTRACT AUDIT AGENCY**  
**AUDIT REPORT NO. 06161-2002P10100001**



February 11, 2005

**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 315  
 Herndon, VA 20170

Telephone No.

FAX No.

E-m

ail Address



**SUBJECT:** RTSC Polar FY 2002 Incurred Cost Audit

**REFERENCES:** Prime Contract Number: OPP-0000373  
*Relevant Dates: (See Page 57)*

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

**REPORT RELEASE RESTRICTIONS:** See Page 58

<b>CONTENTS:</b>		<u>Page</u>
	Subject of Audit	1
Executive	Summary	1
	Scope of Audit	2
	Results of Audit	4
	Contractor Organization and Systems	43
	DCAA Personnel and Report Authorization	56
	Audit Report Distribution and Restrictions	58
Appendixes		58



**Audit Report No. 6161-2002P10100001**

**SUBJECT OF AUDIT**

We examined the Raytheon Technical Services Company certified final indirect cost rate proposal and related books and records for the reimbursement of Polar Services FY 2002 incurred costs. The purpose of the examination was to determine allowability of direct and indirect costs and recommend contracting officer-determined indirect cost rates for FY 2002. The proposed rates apply to prime contract OPP-0000373. A copy of RTSC Certificate of Final Indirect Costs for the fiscal year examined is included as Appendix 1 to this report.

The incurred cost proposals are the responsibility of the contractor. Our responsibility is to express an opinion based on our examination.

**EXECUTIVE SUMMARY**

Our examination of the [REDACTED] million proposal disclosed [REDACTED] of questioned costs, including the following significant items:

- Fringe benefit costs
- Overhead costs in excess of ceiling
- Unallowable costs
- G&A costs in excess of ceiling



**SIGNIFICANT ISSUES:**

1. The contractor is in noncompliance with CAS 418 and disclosed accounting practices (i.e., CAS disclosure statement).
2. We questioned [REDACTED] related to the application of audited RTSC fringe rates as they are applied to the Polar Services fringe benefit bases. The FY 2002 fringe rates have not yet been negotiated so the claimed rates were used to calculate the FY 2002 fringe indirect costs.
3. We questioned [REDACTED] of unallowable Other Direct Cost (ODC) related to transaction testing of ODC, Christchurch petty cash, materials, and subcontract costs.
4. We questioned [REDACTED] of G&A costs in excess of the contract ceiling. The G&A rates were recalculated and compared to the claimed rates to determine the amounts in excess of the [REDACTED] contract ceiling rate.



**Audit Report No. 6161-2002P10100001**

5. We questioned [REDACTED] of overhead costs in excess of the contract ceiling. The overhead rates were recalculated and compared to the claimed rates to determine the amounts in excess of the [REDACTED] contract ceiling rate.
6. We reclassified [REDACTED] of Corporate and RTSC allocations that were charged direct to the contract as Other Direct Cost (ODC).
7. We reclassified [REDACTED] of ODC and \$1,358,527 of labor costs related to locally incurred indirect functions such as [REDACTED].
8. We reclassified [REDACTED] of costs related to subcontracts but recorded as ODC and subsequently burdened with G&A expense.

**SCOPE OF AUDIT**

Except for the qualifications discussed below, we conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records evaluated are free of material misstatement. An examination includes:

- evaluating the contractor's internal controls, assessing control risk, and determining the extent of audit testing needed based on the control risk assessment;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records evaluated;
- assessing the accounting principles used and significant estimates made by the contractor;
- evaluating the overall data and records presentation; and
- determining the need for technical specialist assistance.

We evaluated the incurred cost proposal using the applicable requirements contained in the:

- Federal Acquisition Regulation, and
- Cost Accounting Standards

Raytheon Polar Services was under the Smith, Davis, and Gaylord (SDG) 1 accounting system for fiscal years 1999 through 2001. The SDG1 accounting system was converted to SAP on September 29<sup>th</sup> 2001. During the last quarter of FY 2001 and FY 2002, Raytheon Polar

## **Audit Report No. 6161-2002P10100001**

Services was on the SAP accounting system. The scope of our examination reflects our assessment of control risk and the risk of unallowable costs being included in the proposal and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

The SDG1 accounting system was considered adequate for accumulating and reporting costs under government flexibly priced contracts. The SAP accounting system is considered inadequate in part based on the identification of several control objective deficiencies. Refer to the Contractor Organization and Systems section of this report for a further description of the contractor's systems. In addition, Raytheon Polar Services uses the Polar Operations Financial Management System (POFMS) to organize costs from the SAP accounting system and then bill the costs direct to the National Science Foundation. We have not reviewed POFMS or deemed the system adequate.

Our assessment of control risk reflects that we have not specifically tested the effectiveness of Raytheon Polar Services systems and related internal controls. The scope of our examination reflects this assessment and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

### **QUALIFICATION:**

An analysis of available documentation in the contractor's files applicable to proposed subcontract costs showed that evaluations by other DCAA offices are needed to reach a definitive conclusion regarding the acceptability of the proposed subcontract costs. We requested assist audits from the DCAA offices cognizant of the selected subcontracts. However, we did not receive the results in time for incorporation into this report. The results of the assist audits are considered essential to the conclusion of this examination. Therefore, the audit results are qualified to the extent that additional costs may be questioned based on the results of the assist audits.

On April 14, 2004 we requested an assist audit from the DCAA Seattle Branch Office to audit costs associated with Subcontract 450001341 which was awarded to Nana Services LLC. On June 22, 2004, we requested an assist audit from DCAA San Diego Branch Office to audit costs associated with Subcontract 4500016809 which was awarded to Biospherical Instruments. Upon receipt of the assist audit reports, we will provide a supplemental report if the assist audits include any findings.

**RESULTS OF AUDIT**

**AUDITOR'S OPINION**

a. Indirect Rates. In our opinion, the contractor's proposed indirect rates are not acceptable as proposed. The examination results and recommendations are presented in the Exhibit B of this report. The contractor did not accept our findings and recommendations with respect to the questioned and reclassified costs.

b. Direct Costs. In our opinion, except for the unresolved costs in the amount of [REDACTED], the contractor's claimed direct costs are acceptable as adjusted by our examination. We questioned and/or reclassified [REDACTED] of direct costs proposed under the Polar Services contract. Questioned and/or reclassified direct costs by element are presented in Exhibit A of this report. The contractor did not accept our findings and recommendations with respect to the questioned and reclassified costs. Direct costs not questioned are provisionally approved pending final acceptance. Final acceptance of amounts proposed under the Polar Services contract does not take place until performance under the contract is completed and accepted by the cognizant authorities and the audit responsibilities have been completed.

c. Penalties for Unallowable Costs. Indirect costs questioned in this examination are believed to be subject to the penalties provided in FAR 52.242-3 and included in Exhibit C of this report. Our recommendations for each questioned item are included in the Exhibits and their supporting schedules. Our recommendations concerning the interest to be recovered on unallowable costs paid will be furnished when we have received your determination on penalties to be assessed.

A schedule of the claimed and audited overhead and G&A costs in excess of the contract's ceiling rates is included in Exhibit D of this report.

A schedule of the claimed and questioned costs by Work Breakdown Structure (WBS) is included in Exhibit E of this report.

We issued memorandums to the contractor detailing our audit exceptions to the major areas of claimed costs. The contractor provided a response on December 14, 2004 which is included as Appendix 2 of this report. The contractor disagrees with our audit findings. We summarized the contractor's response and provided our comments in Schedule B-1 regarding the locally incurred costs (Note 1) and Other Direct Costs - RTSC/Corporate allocations (Note 2). We have also summarized the contractor's response and provided our comments in Exhibit D regarding costs in excess of the indirect rate ceilings (Note 2).

**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED DIRECT COSTS  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

<u>Element of Cost Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Direct Labor	[REDACTED]	[REDACTED]	Schedule A-1
Material	[REDACTED]	[REDACTED]	Schedule A-2
Subcontracts	[REDACTED]	[REDACTED]	Schedule A-3
Other Direct Costs	[REDACTED]	[REDACTED]	Schedule A-4
Totals	[REDACTED]	[REDACTED]	

The claimed cost column represents amounts included in the contractor's certified indirect cost submission for the Polar Services contract. This column does not necessarily represent amounts that the contractor plans to claim for reimbursement under the contract.

Minor differences may exist in the supporting schedules due to rounding.



CONTRACTOR'S CLAIMED FY 2002 DIRECT LABOR COSTS AND RESULTS OF AUDIT

<u>Element of Cost</u>	<u>Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>	<u></u>
Direct Labor	[REDACTED]	[REDACTED]	\$0	__	Note 1

EXPLANATORY NOTE:

1. Direct Labor

a. Summary of Conclusions:

We reclassified [REDACTED] of the contractor's claimed direct labor associated with various indirect functions to the overhead pool based on its disclosed accounting practices.

b. Basis of Contractor's Costs:

The contractor's claimed labor costs are based on actual labor costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

The contractor recorded [REDACTED] as direct labor for those labor costs associated with the indirect functions of [REDACTED] using the General Management WBS.

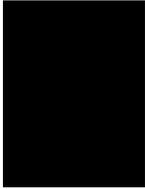
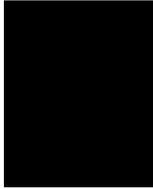
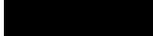
[REDACTED]

Furthermore, the costs should be included in an indirect cost pool because the Polar Services contract has multiple final cost objectives (WBS). Many of these WBS are restricted and require the contractor to segregate, accumulate, and report costs by WBS. As a result of these circumstances, the contractor's normal accounting practice is to treat costs related to these indirect functions as an indirect cost.

[REDACTED]

In view of the above, we removed the claimed direct labor costs associated with these indirect functions from the overhead direct labor base and reclassified the costs to the overhead pool consistent with the contractor's normal accounting practices. See Schedule B-1, Note 1 for further discussion on our reclassification.

The reclassified direct labor costs associated with the various indirect functions are as follows:

<u>WBS Description</u>	<u>Reclassified</u>	<u></u>
		
Total		



**CONTRACTOR’S CLAIMED FY 2002 MATERIAL COSTS  
AND RESULTS OF AUDIT**

<u>Element of Cost Claimed</u>	<u>Questioned</u>	<u>Unresolved</u>	<u>Ref.</u>
Equipment			
Other Material			Note 1
Purchased Parts			
Freight In			
Material Scrap			
Totals			\$0

EXPLANATORY NOTE:

1. Other Material Costs

a. Summary of Conclusions:

We questioned [REDACTED] of Other Material costs associated with unallowable travel and related costs.

b. Basis of Contractor’s Costs:

The contractor’s claimed Other Material costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We have questioned [REDACTED] of Other Materials costs because the contractor did not provide adequate supporting documentation (no reason for expense) as required in FAR 31.201-2(d). The claimed costs were included on Document No.100296536 dated January 25, 2002. The FAR states that, “A contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable costs principles in this subpart and agency supplements. The contracting officer may disallow all or part of a claimed cost which is inadequately supported.” According to the contractor, the claimed costs represent airline tickets for an employee’s spouse and medical expenses for an employee. Some of these claimed costs appear to be expressly unallowable since the trip was not for



official company business as required in FAR 31.205-46(a)(1) which states, “Costs incurred by contractor personnel on official company business are allowable, subject to the limitations contained in this subsection.”.

**CONTRACTOR’S CLAIMED SUBCONTRACT COSTS  
AND RESULTS OF AUDIT**

<u>Element of Cost Claimed</u>	<u>Claimed</u>	<u>Questioned</u> (Note 1)	<u>Unresolved Ref.</u> (Note 2)
Subcontracts	██████████	██████████	██████████
Other Subcontract Labor	██████████	██████████	██████████
Totals	██████████	██████████	██████████

EXPLANATORY NOTES:

1. Subcontract – Questioned

a. Summary of Conclusions:

We reclassified ██████████ of claimed ODC to subcontract costs. In addition, we questioned ██████████ of claimed costs based on reasonableness and \$7,090 because the amount is an expressly unallowable cost (late fees).

b. Basis of Contractor’s Costs:

The contractor’s claimed subcontract costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

The results of our examination of subcontract costs are summarized as follows:

<u>Description</u>	<u>Amount</u>	
Reclining chairs	██████████	(1)
Contractor recordation error	██████████	(2)
Professional services ODC	██████████	(3)
Total	██████████	

(1) We questioned \$2,359 based on a sample of subcontract cost transactions. Our sample disclosed an invoice and pro-card statement for ██████████ which we believe is an unreasonable costs based on FAR 31.201-3(a). The



FAR states that, “A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.”

(2) We reclassified [REDACTED] of ODC to subcontracts because the contractor incorrectly recorded these costs in its system (see Schedule A-4, Note 6). We performed a reconciliation of claimed to billed costs for the time period audited and found discrepancies between ODC and subcontracts. According to the contractor, the costs were incorrectly recorded in its accounting system, but the error was discovered during the billing process and billed correctly to the contract. However, the contractor never reclassified the claimed costs from ODC to subcontracts in its accounting system. We later determined that the SF 1034s that the contractor provided for us to perform the reconciliation was not the forms actually submitted to NSF for billing purposes.

The costs that we reclassified from ODC to subcontracts based on the contractor’s accounting error are summarized in the table on the next page. The over/understated subcontract amount is based on a comparison of the costs recorded in the contractor’s accounting system (SAP) which is incorrect and the amount billed to the contract (voucher amount) which is correct. The contractor should adjust the subcontract costs recorded in its accounting system for each WBS to reflect this over/understated amount.

**Page 12 has been Redacted**

(3) We determined that specific transactions reviewed as part of the professional services ODC were actually subcontract costs. Transactions totaling [REDACTED] were classified as ODC but should have been recorded as subcontracts (see Schedule A-4, Note 5). In addition, \$7,090 is considered expressly unallowable because these costs are late fees related to vendor invoices. This expressly unallowable amount is subject to penalties.

The costs that we have reclassified from professional services ODC to subcontracts including the invoice related to unallowable late fees (21802COR) are summarized as follows:

<u>Document No.</u>	<u>Purchase Order No.</u>	<u>Company</u>	<u>Invoice No.</u>	<u>Amount</u>
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total				[REDACTED]

2. Subcontract – Unresolved

a. Summary of Conclusions:

We classified [REDACTED] of subcontract costs as unresolved pending receipt of requested assist audit reports from the cognizant DCAA offices.

b. Basis of Contractor’s Costs:

The contractor’s claimed subcontract costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We requested an assist audit from the Seattle Branch office on April 14<sup>th</sup>, 2004 for purchase order 450001341. The purchase order was issued to [REDACTED]  
[REDACTED]  
Unresolved costs related to this purchase order totaled [REDACTED]

In addition, we requested an assist audit from the San Diego Branch office on June 22<sup>nd</sup>, 2004 for cost reimbursable purchase order 4500016809. The purchase order was issued to [REDACTED]. Unresolved costs related to this purchase order totaled [REDACTED].

**CONTRACTOR’S CLAIMED OTHER DIRECT COSTS (ODC)  
AND RESULTS OF AUDIT**

<u>Element of Cost Claimed</u>	_____	<u>Questioned Ref.</u>	_____
Contract Bonus	██████████		
Miscellaneous	██████████	Note 1	██████████
Miscellaneous-Petty Cash	██████████	Note 2	██████████
Travel	██████████	Note 3	██████████
Training	██████████	Note 4	██████████
Professional Services	██████████	Note 5	██████████
Other ODC	██████████		██████████
Subcontract Costs	██████████	Note 6	██████████
Totals	██████████		██████████

EXPLANATORY NOTES:

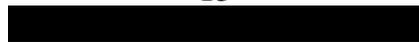
1. Miscellaneous

a. Summary of Conclusions:

We reclassified ██████████ of Corporate and RTSC allocations to the overhead pool which the contractor had treated as ODC. We also reclassified ██████████ of ODC to the overhead pool related to locally incurred indirect functions which the contractor had also treated as ODC. Lastly, we questioned ██████████ of ODC because the contractor was unable to provide adequate supporting documentation.

b. Basis of Contractor’s Cost:

The contractor’s claimed Miscellaneous ODC is based on actual costs incurred as represented in its accounting books and records.



c. Audit Evaluation:

The results of our examination of Miscellaneous ODC are summarized as follows:

<u>Description</u>	<u>Amount</u>	
Reclassified Corporate/RTSC allocations	[REDACTED]	(1)
Reclassified indirect functions	[REDACTED]	(2)
Inadequate supporting documentation	[REDACTED]	(3)
 	<hr/>	
Total	[REDACTED]	
	<hr/>	

(1) Corporate/RTSC allocations are treated as an overhead costs based on the contractor’s disclosed accounting practices. The contractor’s accounting system treated the costs as indirect, however the costs were subsequently reclassified as a direct charge to the Polar Services contract based on adjusting journal entries. For example, Document No.100672385 reclassified [REDACTED] of Corporate/RTSC allocations to the Miscellaneous ODC account. We reclassified the FY 2002 Corporate allocation of [REDACTED] and FY 2002 RTSC allocation of [REDACTED] from the Miscellaneous ODC account to the overhead pool so these costs are treated consistently based on the contractor’s disclosed accounting practices. See Schedule B-1, Note 2 for the basis of our reclassification.

(2) We reclassified [REDACTED] of ODC related to indirect support functions to the contractor’s overhead pool based on its disclosed accounting practices. Our basis for this reclassification is discussed in Schedule B-1, Note 1 of this report.

The ODC that we have reclassified to overhead are summarized as follows:

<u>WBS Description</u> _____	<u>FY 2002</u>
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
	<hr/>
<b>Totals</b>	[REDACTED]

(3) A statistical sample of Miscellaneous cost transactions disclosed that the contractor was unable to provide adequate documentation to support costs related to [REDACTED] in the amount of [REDACTED] (Document No.100397588). We have questioned these costs based on FAR 31.201-2(d) which requires the contractor to support its claimed costs. We projected our sample results to the universe resulting in total questioned costs of [REDACTED]

2. Miscellaneous – Petty Cash

a. Summary of Conclusions:

We performed a statistical sample of journal entries and questioned 28.58% of the total petty cash of [REDACTED] which was processed through the Miscellaneous cost account.

b. Basis of Contractor's Cost:

The process for the Christchurch New Zealand petty cash includes maintaining all documentation on site in New Zealand as the costs are incurred. As needed, replenishment requests are forwarded to the Colorado office. Replenishment is then granted on an as needed basis. The replenishments are originally coded to the Miscellaneous account on a specific WBS. A reclassification of those costs occurs when journal entries are sent to Colorado for recording costs to cost objectives. Included in the journal entry are the New Zealand dollars incurred and the applicable exchange rates. The original ODC amounts recorded are not only ODC costs but all costs including subcontract, material and labor costs. Since these elements are recorded through the Miscellaneous account they became part of the population for petty cash related ODC and were tested accordingly.

c. Audit Evaluation:

The high volume of petty cash transactions prompted the contractor to request that we use two (2) complete months of transactions as our statistical sample in an effort to facilitate the transaction testing process. As a result, it was agreed to by the contractor, that the 2-month sample would be projected to the universe of Christchurch petty cash transactions for each fiscal year (2000-2002). On that basis, two (2) journal entries of petty cash transactions representing the months of April 2002 and November 2002 were selected for review. The journal entries were received from the contractor and were reviewed 100%. We projected the sample results to the FY 2002 universe of [REDACTED] resulting in total questioned costs of [REDACTED]

The results of our sample of two (2) months of transactions/journal entries are as follows:

<u>Description</u>	<u>Questioned</u>
Lodging – military personnel	(1)
Pre-season social:	
Alcohol	(2)
Flowers	(2)
Ice Sculpture	(2)
Music	(2)
Signs	(2)
Convention center	(2)
Tax payments/late penalties	(3)
Business cards/stationary	(4)
Consultation, pizza, etc.	(5)
Electronics, camera, etc.	(6)
Transport license service	(7)
Health & safety awards	(8)
GM HR recruiting	(9)
GM HR recruiting	(10)
Em ployee morale	(11)
NZ Internal Revenue	(12)
Personal clothing	(13)
Maintenance of generators	(14)
Newspaper subscription	(15)
Recordation error	(16)

(1) We questioned costs for lodging provided for military personnel for not only U.S. Armed forces but also New Zealand Defense forces. These costs are for lodging at hotels such as Sudima Hotel Grand Chancellor, Quality Hotel Commodore, Airways Motel, and so forth. FAR 31.205-46(a)(7) states that, costs shall be allowable only if the date and place, purpose of the trip, and so forth are included on the supporting documentation. The supporting documentation provided was not sufficient for us to determine the purpose of the trips, the nature of the business, or the relationship to the contractor or the Polar Services contract. The verification of reimbursement by the U.S. and New Zealand Departments of Defense for these costs could not be verified.

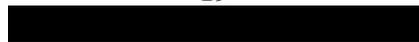
Questioned costs for the two (2) journal entries that makeup the total lodging costs are as follows:

Journal	Entry NZ	Dollars US	Dollars
0402-200			
1102-200			
Totals			

- (2) Several transactions were questioned regarding a pre-season social. Although the function was held for NSF and Raytheon, FAR 31.201-6 states that “costs that are expressly unallowable or mutually agreed to be unallowable, including mutually agreed to be unallowable directly associated costs, shall be identified and excluded from any billing, claim, or proposal applicable to a government contract.” Any costs or revenues of an expressly unallowable nature are required to be accounted for separate and distinct from contract costs. According to FAR 31.205-14 Entertainment costs, “costs of amusement diversions, social activities, and any directly associated costs...are unallowable. Costs made unallowable under this cost principle are not allowable under any other cost principle.” Also, FAR 31.205-51 disallows all cost for alcoholic beverages. These expressly unallowable costs are subject to penalties.

The questioned costs related to petty cash journal entry 1102-200 for the pre-season social are as follows:

- Wine for the pre-season social was purchased from [REDACTED] on Invoice No. 129748 dated September 26, 2002 in the amount of NZ [REDACTED]. The questioned amount is [REDACTED].
- Flowers for the pre-season social were purchased from [REDACTED] (2000) Ltd on Invoice No. 21154 dated September 28, 2002 in the amount of NZ [REDACTED]. The questioned amount is [REDACTED].
- The ice sculpture for the pre-season social was purchased from [REDACTED] on Invoice No. 54550 dated September 30, 2002 for NZ [REDACTED]. The questioned amount is [REDACTED].
- Music for the pre-season function was billed by The [REDACTED] on June 10, 2002 in the amount of [REDACTED]. The questioned dollar amount is \$302.



- Signs for the pre-season function were invoiced by [REDACTED] on Invoice No. 61 for [REDACTED]. The questioned dollar amount is [REDACTED].
  - On journal entry 0402-200, an invoice from NCC New Zealand was billed as a deposit for a convention center for the pre-season function. The invoice amount was for [REDACTED] and the questioned amount is \$415.
- (3) We questioned [REDACTED] related to tax payments and late penalties paid to the New Zealand Internal Revenue Department made on behalf of employee John Sherve. The entries consisted of one for [REDACTED] and the other for [REDACTED]. These transactions were recorded and paid based on internal e-mails within the Polar Services organization. The documentation is insufficient and penalties for lack of payment are expressly unallowable based on FAR 31.205-15. The FAR clause states that, “costs of fines and penalties resulting from violations of, or failure of the contractor to comply with Federal, State, Local, or foreign laws and regulations, are unallowable except when incurred as a result of compliance with specific terms and conditions of the contract or written instructions from the contracting officer.” These expressly unallowable costs are subject to penalties.
- (4) We questioned [REDACTED] of costs related to the purchase of business cards and stationary for military personnel. The cost was for 500 business cards each for two (2) military members, [REDACTED], and 2,000 sheets of stationary on American letterhead. These costs are not reasonable based on FAR 31.201-3 since they are for military personnel nor allocable based on FAR 31.201-4 as the direct relationship to the contract is not defined.
- (5) Costs were reimbursed for an invoice from [REDACTED]. The fees of [REDACTED] were related to additional consultation and telephone calls to the USA. The employee’s name on the receipt was [REDACTED] but the relation to the contract was not defined. The questioned costs totaled [REDACTED]. Adequate documentation must be provided to support the claimed costs based on FAR 31.201-2(d). Credit card statement was provided for two (2) transactions on journal entry 0402-200. The amounts reviewed were NZ \$63.60 and NZ \$242.20. The NZ \$63.60 represents employee morale [REDACTED], and [REDACTED]. The [REDACTED] represents employee morale related to the “procurement” of pizza for a farewell tea. These costs are expressly unallowable based on FAR 31.205-13 and resulted in questioned costs of [REDACTED]. The second item was for a purchase at Carters.

A credit card receipt was provided which is inadequate documentation based on FAR 31.201-2(d) resulting in questioned costs of [REDACTED].

- (6) A credit card statement was provided for four (4) transactions but the supporting documentation was inadequate. Although there were receipts for the claimed costs, the relevance to the contract was not specified. The total questioned costs were \$77 for this credit card receipt as summarized below:

Description	NZ	Dollars US	Dollars
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Totals		[REDACTED]	[REDACTED]

- (7) An e-mail message regarding Transport Service License was submitted for reimbursement of [REDACTED]. While it describes the various charges, it is insufficient documentation for the payment of funds. The requirement under FAR 31.201-2(d) dictates that “a contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles...” The questioned amount is [REDACTED].
- (8) An e-mail message and receipts were submitted for reimbursement for health and safety awards consisting of gift certificates from local businesses to include McEwings Sports, Valentino, SPA at Heritage, Kathmandu, Sala Sala, Dux Lux, and Strawberry Fare. The purpose or achievement, recipients, or other documentation were not provided. Only a list of the gift certificates to be purchased in an e-mail was provided for supporting documentation. FAR 31.201-2(d) requires that “a contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles...” the charge was for two (2) items of [REDACTED] each resulting in questioned costs of \$878.
- (9) The contractor claimed costs for a [REDACTED] – Orientation held at the Sudima Hotel Grand Chancellor from 9/24/2002 to 9/29/2002. The only supporting documentation provided was Invoice No. 273301 from the Grand



Chancellor. The itinerary, attendees, and other such documentation were not provided. The invoice alone does not satisfy the requirements for documentation under FAR 31.201-2(d). The invoiced amount was NZ [REDACTED]. The resulting questioned costs are \$494.

- (10) The contractor claimed costs for a GM HR Recruiting – Orientation held at the [REDACTED] from 9/30/2002 to 10/03/2002. The only supporting documentation provided was Invoice No. 274468 from the Grand Chancellor. The itinerary, attendees, and other such documentation were not provided. The invoice alone does not satisfy the requirements for documentation required by FAR 31.201-2(d). The invoiced amount was NZ [REDACTED]. The resulting questioned costs are [REDACTED].
- (11) The contractor claimed costs for ice cream in the amount of [REDACTED]. The only documentation provided was an invoice from [REDACTED] for the purchase of 12 [REDACTED]. The invoice alone does not satisfy the requirements for documentation in FAR 31.201-2(d). In fact, the nature of the expense suggests the claimed costs are expressly unallowable based on FAR 31.205-13, Employee morale. These expressly unallowable costs are subject to penalties. The questioned amount was [REDACTED].
- (12) The contractor provided an e-mail as support for a payment to the New Zealand Internal Revenue Department (IRD). The e-mail does not state the purpose for the payment or evidence that the payment was actually made. The e-mail request for funds does not satisfy the requirements for documentation in FAR 31.201-2(d). The [REDACTED] charge resulted in questioned costs of [REDACTED].
- (13) The contractor submitted as claimed costs clothing repair that was not identifiable with the prime contract requirements. The clothing repair was included with laundry items that were identifiable. Personal items are not an allowable contract cost. The New Zealand charges for this charge were NZ [REDACTED] resulting in a questioned amount of [REDACTED].
- (14) The contractor claimed costs related to maintenance of generators on invoice 27500-1 from [REDACTED]. The invoice stated services related to a generator at [REDACTED]. This is not considered a reasonable costs based on FAR 31.201-3(b)1 as it is not the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or contract performance. The charge was for NZ [REDACTED] resulting in questioned costs of [REDACTED].

- (15) Costs of [REDACTED] were incurred for a local paper subscription. The relevance and or purpose of the costs in relation to the contract are not determinable. This is not considered a reasonable costs based on FAR 31.201-3(b)1 as it is not the type of cost generally recognized as ordinary and necessary for the conduct of the contractor’s business or contract performance.
- (16) The Telecom custom bill dated 1 October 2002 was incorrectly recorded in the contractor’s general ledger. The charge for [REDACTED] recorded to 07AH was booked as [REDACTED] and should have been booked as [REDACTED]. The difference of [REDACTED] is questioned.

3. Travel

a. Summary of Conclusions:

The contractor claimed [REDACTED] of travel costs. We questioned [REDACTED] related to unallowable costs based on FAR 31.201-3.

b. Basis of Contractor’s Cost:

The claimed costs are based on the contractor’s SAP system direct travel accounts as follows:

521020	Travel - Direct Airfare
521021	Travel – Transportation
521022	Travel – Meals
521023	Travel – Lodging
521024	Travel – Other
521025	Travel - Taxable Per-Diem

The process for the Christchurch New Zealand petty cash includes maintaining all documentation on site in New Zealand as the costs are incurred. As needed, replenishment requests are forwarded to the Colorado office. Replenishment is then granted on an as needed basis. The replenishments are originally coded to the Miscellaneous account on a specific WBS. A reclassification of those costs occurs when journal entries are sent to Colorado for recording costs to the appropriate cost objectives. Included in the journal entry are the New Zealand dollars incurred and the applicable exchange rates. The original ODC amounts recorded are not only ODC costs but all costs including subcontract, material and labor costs. Since these items are recorded

through the Miscellaneous account they became part of the population for petty cash related ODCs and were tested accordingly.

c. Audit Evaluation:

We selected a random sample of direct travel accounts and reviewed the transactions for allowability, allocability, and reasonableness. We determined pro-card transaction 100579936 represented a purchase of 21,000 customized soft vinyl luggage tags with the Polar Logo and information. An employee of the contractor provided an explanation of the transaction and samples of the tags that were purchased. The tags are changed from year to year to display the current Polar season and to change the color. The invoice was from [REDACTED] however the sample item was for a portion of that at [REDACTED]. World travel has a picture of the Polar tags on its website as an example. The questioned amount was projected to the universe resulting in the total questioned costs of [REDACTED]. FAR 31.201-3(a) states that, "a cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business."

4. Training

a. Summary of Conclusions:

The contractor claimed [REDACTED] of direct training costs. We questioned [REDACTED] related to unallowable training based on FAR 31.205-44 and costs which were unsupported according to FAR 32.201-2(d).

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

A random sample of training cost transactions were reviewed for allowability, allocability, and reasonableness. We projected the sample results to universe which resulted in total questioned costs of [REDACTED].

Our sample results are summarized as follows:

<u>Description</u>	<u>Questioned</u>
--------------------	-------------------



Em broidered hats	██████████	(1)
Increased payment	██████████	(2)
Unsupported costs	██████████	(3)
Total	██████████	

(1) Document 100591332 represented the purchase of 600 embroidered hats from ██████████ on invoice 12652 for the amount of ██████████. The only supporting documentation for the transaction was the check request and an invoice. We do not believe these costs are allowable training as defined in FAR 31.205-44.

(2) Document 100336538 represented a worker/supervisor course for Michael Johnson in the amount of ██████████ provided by Environmental Training & Consulting. Invoice No. 4361a was for the amount of ██████████ but was approved for ██████████ with no documentation to supporting the increased payment. According to FAR 32.201-2(d), the contractor is responsible for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles.

(3) The following transactions related to training were reviewed and questioned because the contractor did not provide adequate documentation to support the claimed costs:

Alternate

Docum	ent No.	Docum	ent No.	Am	ount
100504186		2010200654			██████████
100630503		100066177			██████████
100718216		110216514			██████████
Total					██████████

5. Professional Services

a. Summary of Conclusions:



The contractor claimed [REDACTED] of professional services costs. We reclassified [REDACTED] of these costs because they should have been recorded as subcontract costs.

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

Due to a small population size, we judgmentally selected the top twelve (12) transactions which represent about 80% of the total dollar value of the population. The invoices associated with the transactions were then reviewed for allowability, allocability, and reasonableness of costs. A total of [REDACTED] related to professional services costs was reviewed. We reclassified [REDACTED] because these costs should have been recorded as subcontract costs. See Schedule A-3, Note 1 of this report for further discussion. We took no exception to the remainder of the claimed costs.

6. Subcontract Costs

a. Summary of Conclusions:

We reclassified [REDACTED] of ODC to subcontracts. The contractor failed to properly record these ODC as subcontracts in its accounting books and records. As a result, we reduced the claimed ODC and increased the subcontract costs by the same amount.

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

We reclassified [REDACTED] of ODC to subcontracts. The contractor failed to properly record these ODC as subcontracts in its accounting books and records. See Schedule A-3, Note 1 of this report for further discussion.

**Polar Services  
Raytheon Technical Services Company**

**STATEMENT OF CONTRACTOR'S CLAIMED INDIRECT COSTS AND RATES  
AND RESULTS OF AUDIT**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

	<u>Claimed</u>		<u>Questioned</u>		<u>Audited Ref.</u>	
<u>Overhead</u>						
Pool	██████████	—	██████████	—	██████████	Schedule B-1
Base						
Rate						
<u>Fringe Benefits</u>						
Pool	██████████	—	██████████	—	██████████	Schedule B-2
Base						
<u>G&amp;A</u>						
Pool	██████████	—	██████████	—	██████████	Schedule B-3
Base						
Rate						

**CONTRACTOR’S CLAIMED OVERHEAD POOL AND BASE COSTS  
AND RESULTS OF AUDIT**

	Am <u>ount</u>	<u>Amount</u> Ref.	
<b>Claimed Overhead Pool</b>		\$ [REDACTED]	
<u>Reclassified Costs:</u>			
Locally Incurred Costs	[REDACTED]		Note 1
Corporate & RTSC Allocations			Note 2
Total Questioned Pool Costs		[REDACTED]	
<b>Revised Pool</b>		[REDACTED]	
<b>Claimed Direct Labor Base</b>			
<u>Reclassified Costs:</u>			
Locally Incurred Labor Costs	[REDACTED]		Note 1
Total Questioned Base Costs		[REDACTED]	
<b>Revised Overhead Base</b>		[REDACTED]	

EXPLANATORY NOTES:

1. Locally Incurred Costs

a. Summary of Conclusions:

Our examination of locally incurred overhead costs revealed that the contractor did not always classify indirect functions and associated costs in accordance with its disclosed accounting practices. Instead, the contractor recorded all local support (indirect) functions to the Polar Services contract as direct costs. As a result, we reclassified Miscellaneous ODC of [REDACTED] and labor costs of [REDACTED] to the local overhead pool. These costs represented a significant amount of costs that were booked direct to the contract using the General Management WBS (PS-X0).

b. Basis of Contractor’s Cost:

The contractor’s claimed costs are based on actual costs incurred as represented in its accounting books and records.



c. Audit Evaluation:

The overhead pool was reviewed based on costs incurred and submitted in the contractor's incurred cost submission. Due to immateriality of the costs actually included in the overhead pool, no substantive testing was considered necessary or performed. We did note that the overhead pool costs appeared to be insignificant for a contract the size of the Polar Services contract. As a result, the contract and the original proposal were reviewed to determine contract requirements for support functions during the term of the contract. The contractor's disclosure statement (disclosed accounting practices) was also reviewed for the treatment of costs regarding the functions as described. According to the contract, the contractor is required to follow its disclosed accounting practices. NSF RFP No. OPP98001, Amendment No. 8 required the contractor's cost or pricing data to follow its Cost Accounting Standards Board Disclosure Statement (Form CASB DS-1). We confirmed that the contractor was recording all local support functions to the Polar Services contract as direct costs. The WBS listing was then reviewed to determine the various support functions that were indirect to the program. The significant support functions reviewed that were indirect to the program were [REDACTED].

Our reclassification of labor costs to the local overhead pool is discussed in further detail in Schedule A-1, Note 1 of this report. Our reclassification of the Miscellaneous ODC is discussed in further detail in Schedule A-4, Note 1 of this report.

d. Contractor's Reaction:

The contractor does not agree that the locally incurred costs should be reclassified or disallowed. First, the contractor contends the parties expressly agreed that all locally incurred costs at Polar would be charged as direct costs to the General Management WBS and that they would not be subject to the overhead ceiling rate. Second, the Polar contract, not the WBS, is the final cost objective based on the CASB definition of a final cost objective. Individual tasks and CLINs under a contract do not necessarily represent final cost objectives nor is a contractor required to treat them as such for cost accounting purposes. Third, the contractor asserts that it is entitled to decide what a final accumulation point is in its accounting system. In the RTSC accumulation system, the Polar contract is the final cost objective according to the contractor.

The complete text of the contractor's response to our audit findings is included as Appendix 2 of this report.

e. Auditor's Comments:

CAS 418-40(a) requires Polar Services to have a written statement of accounting policies and practices for classifying costs as direct and indirect and to apply those policies and practices consistently.

[REDACTED]

The Polar RFP required the contractor's cost or pricing data to follow its disclosed cost accounting practices (CAS disclosure statement). As a result, the RFP (procurement) did not require any costs normally classified as indirect (e.g., locally incurred overhead, Raytheon allocations or RTSC allocations) to be treated as direct costs to the contract. The Polar RFP and its requirement for the contractor to follow disclosed cost accounting practices is consistent with the intent of the CASB when it published comments regarding this issue in Part II, Preambles to the Related Rules and Regulations Published by the Cost Accounting Standards Board, Preambles to Part 331, Contract Coverage, Comment No. 11, *Additional requirements by agencies*, states that:

*"...concern was expressed that Federal agencies might require the submission of cost proposals in ways inconsistent with the cost accounting practices of some or all of the potential offerors. The Board recognizes that this has happened in the past, but it notes that Board rules, regulations, and Cost Accounting Standards are to be used by relevant Federal agencies as well as by contractors and subcontractors, and it believes that henceforth requests for proposals must be fully consistent with such rules, regulations, and standards, although of course the Federal agency may ask for supplementary information to accompany proposals if this is needed to meet the agency's requirements."*

[REDACTED]  
[REDACTED]. Specifically, Polar Services classified some normally indirect expenses

[REDACTED] as direct expenses. As a result, the NSF Contracting Officer requested the NSF OIG to review the basis for these classifications by Polar

[REDACTED]

Services and advise if the proposed allocations are consistent with applicable RTSC disclosure statement(s) and otherwise represent allowable, allocable, and reasonable costs of contract performance.

Lastly, we believe that the Polar Services contract has multiple final cost objectives in the form of Work Breakdown Structures (WBS) based on the following:

(1) The contract has determined that the WBS is the final cost objective. There is a number of Restricted WBS such as SPSM, SPSE, JSOC, IS Infrastructure, MTRS, CTBT, ANSMET II, and IceCube that require the contractor to separately accumulate, report, and bill costs to NSF. For each WBS, the contractor even tracks and reports by: obligated, advances, expenditures, available funds, and unliquidated advances in its financial reports to NSF.

(2) The contractor has determined that the WBS is the final cost objective and one of the final accumulation points. The CASB definition of a final cost objective states, "Final cost objective means a cost objective which has allocated to it both direct and indirect costs, and in the contractor's accumulation system, is one of the final accumulation points." The contractor's accounting system segregates, accumulates, and bills costs by WBS which includes both direct and indirect costs as required by the CASB definition of a final cost objective. Also, the contractor seems to imply that a contract is always the final cost objective. We disagree with the contractor because contracts may require task orders/delivery orders which will become the final cost objectives. In this case, a contractor typically segregates and accumulates its costs by task and/or delivery order and separately closes out each of these contracting actions instead of the contract as a whole. In addition, these task and/or delivery orders have their own ceiling amounts and the contractor is responsible for complying with those separate ceilings instead of any overall contract ceiling amount.

(3) The contractor applies a [REDACTED] G&A rate to the base costs of each WBS for reporting and billing costs to NSF. As a result, the WBS has to be the final cost objective because CAS 410 requires that G&A expenses can only be allocated to final cost objectives. According to 48 CFR 9904.410-40(a), the basic requirement of CAS 410 is that G&A expenses be grouped into a separate indirect cost pool and allocated only to final cost objectives.

In summary, we believe the contractor is in noncompliance with CAS 418-40(a) and has not followed its disclosed accounting practices which is a requirement of that standard.

2. Corporate and RTSC Allocations

a. Summary of Conclusions:

Our examination of the overhead pool for allocated costs from RTSC and Raytheon Corporate resulted in an increase in the overhead pool by [REDACTED] with a proportionate decrease in ODC. The contractor's disclosed accounting practice

[REDACTED]

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

Polar Services demonstrated, through a prepared schedule and Annual Program Plan Cost Structure, the methodology used when recording allocated costs from Raytheon Corporate and Raytheon Technical Services (RTSC). Understanding the contractor's methodology and classification of costs direct vs. indirect is important since the contract includes a [REDACTED] overhead ceiling rate.

It was determined that Polar Services was recording allocations direct to the contract using the General Management WBS. [REDACTED]

[REDACTED]

Our reclassification of the RTSC and Corporate allocations to the local overhead pool is discussed in further detail in Schedule A-4, Note 1 of this report. The FY 2002 allocations that we reclassified to the local overhead pool are shown below:

[REDACTED]

**Page 34 has been Redacted**

d. Contractor's Response:

The contractor asserts that the Polar business unit was not organized as a separate, stand-alone operation. As a result, Polar has in effect purchased certain systems and support services from RTSC and Raytheon (Corporate) and charged the costs for these systems and services to the Polar contract in the form of cost allocations. [REDACTED]

e. Auditor's Comments:

The contractor judgmentally selected certain RTSC and Corporate allocations (flow-down costs) to charge direct to the Polar contract while others remained indirect.

[REDACTED] for [REDACTED]. We reclassified to the overhead pool all flow down costs to the Polar business unit that the contractor elected to charge direct to the contract. We are not aware of any other business units that judgmentally select certain allocations and charge the associated costs direct to the contract. See Note 1 above for additional auditor comments on the contractor's response to our audit findings.



c. Audit Evaluation:

RTSC fringe costs are claimed in total in the RTSC 2002 incurred cost submission. In an effort to confirm the total claimed, the labor costs have been segregated based on the applicable fringe bases. The RTSC audited fringe rates by union code for fiscal year 2002 were then applied to the associated labor bases and totaled for a total audited fringe burden of [REDACTED]. The total applied fringe was then compared to the claimed fringe from the contractor's incurred cost submissions for the same time frame of [REDACTED] resulting in an over application of claimed fringe costs of [REDACTED].

**CONTRACTOR'S CLAIMED G&A POOL/BASE COSTS  
AND RESULTS OF AUDIT**

<u>Description</u> Amount	_____ Ref.	_____
(Note	1)	
Reclassified Subcontracts	█	Schedule A-3, Note 1
Fringe Benefits in Excess of Claimed Rates	_____ █	Schedule B-2
G&A Base Adjustment	█	

EXPLANATORY NOTE:

1. G&A Expense

a. Summary of Conclusions:

We do not take any exception to the contractor's claimed G&A pool. However, we adjusted the contractor's claimed G&A base by █.

b. Basis of Contractor's Cost:

The contractor's claimed costs are based on actual costs incurred as represented in its accounting books and records.

c. Audit Evaluation:

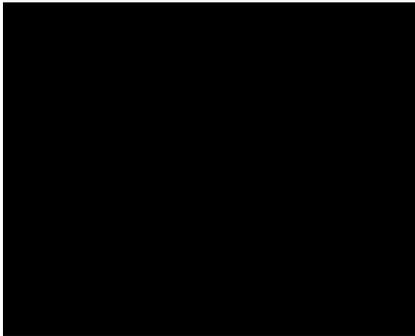
We did not perform any transaction testing on the claimed G&A pool because of the immaterial costs included in that pool and the █ ceiling rate included in the contract. However, we adjusted the contractor's claimed G&A base in the amount of █ as a result of our audit findings related to fringe benefits and reclassified subcontracts. All other questioned costs are subject to G&A burden regardless of their allowability.



**Polar Services  
Raytheon Technical Services Company**

**SCHEDULE OF UNALLOWABLE COSTS SUBJECT TO PENALTY (NOTE 1)**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

<u>Description</u> Questioned	<u>Amount Subject to FAR 42.709</u> <u>Costs Ref.</u>
	 Schedule A-3, Note 1 Schedule A-4, Note 2c(2) Schedule A-4, Note 2c(3) Schedule A-4, Note 2c(11)
Total	

Note 1: Questioned costs are subject to the Level One penalty.

**Polar Services  
Raytheon Technical Services Company**

**OVERHEAD AND G&A COSTS IN EXCESS OF CONTRACT RATE CEILINGS**

Polar Services Contract No. OPP-0000373  
Period January 1, 2002 through December 31, 2002

**Charts have been Redacted**

**G&A**

EXPLANATORY NOTES:

1. Overhead and G&A Costs in Excess of Ceiling – Without Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases, i.e., without any audit adjustments.

b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates but without including any audit adjustments. These amounts represent the costs in excess of the ceiling rates based on the contractor's claimed indirect rates and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

2. Overhead and G&A Costs in Excess of Ceiling – With Audit Adjustments

a. Summary of Conclusions:

We computed the overhead and G&A costs in excess of the ceiling rates. These amounts represent the costs in excess of the ceiling rates that includes the audit adjustments discussed in this report.

b. Basis of Contractor's Cost:

The contractor's claimed costs and indirect rates are based on its certified incurred cost submission.

c. Audit Evaluation:

We computed the overhead and G&A costs in excess of the ceiling rates that reflects our audit adjustments. These amounts represent the costs in excess of the ceiling rates based on incorporating the audit adjustments made to the contractor's indirect cost pools and allocation bases. Any comparison to billed costs should be performed after final negotiations and resolution with the contractor.

d. Contractor's Response:

The contractor states that the amounts identified by DCAA as claimed over ceiling have not been claimed nor recovered under the contract. The costs are included in the actual incurred cost submission and they are charged to the contract because they are actual

costs and they must be recorded on the books, but we are aware of no evidence that the costs have ever been included in any billing or otherwise claimed by Polar.

e. Auditor's Comments:

We disagree that the contractor has not billed nor recovered these over ceiling amounts under the contract. The contractor billed and recovered these amounts as direct costs as discussed in the exhibits to this report. We reclassified these direct costs [REDACTED] to overhead and computed the amounts that exceed the contract's ceiling rates.

**Polar Services**  
**Raytheon Technical Services Company**  
**SCHEDULE OF CLAIMED AND QUESTIONED COSTS BY**  
**WORK BREAKDOWN STRUCTURE**  
 Polar Services Contract No. OPP-0000373  
 Period January 1, 2002 through December 31, 2002

<u>WBS Description</u>	<u>Claimed</u>	_____	<u>Questioned</u> (Note 1)	<u>Difference</u>
PS-00	████████████████████	████	████	████
PS-01	████████████████████	████	████	████
PS-02	████████████████████	████	████	████
PS-03	████████████████████	████	████	████
PS-04	████████████████████	████	████	████
PS-05	████████████████████	████	████	████
PS-07	████████████████████	████	████	████
PS-08	████████████████████	████	████	████
PS-09	████████████████████	████	████	████
PS-20	████████████████████	████	████	████
PS-21	████████████████████	████	████	████
PS-22	████████████████████	████	████	████
PS-23	████████████████████	████	████	████
PS-24	████████████████████	████	████	████
PS-25	████████████████████	████	████	████
PS-27	████████████████████	████	████	████
PS-30	████████████████████	████	████	████
PS-31	████████████████████	████	████	████
PS-32	████████████████████	████	████	████
PS-33	████████████████████	████	████	████
PS-34	████████████████████	████	████	████
PS-35	████████████████████	████	████	████
PS-37	████████████████████	████	████	████
Totals		████████	████████	████████

Note 1: The significant portion of questioned costs for the indirect functions and Corporate/RTSC allocations relate to the General Management WBS and were questioned specifically on those WBS. The subcontract questioned costs were questioned on specific WBS according to Schedule A-3. The balance of the questioned costs were allocated to all WBS based on costs incurred.



**CONTRACTOR ORGANIZATION AND SYSTEMS**

**I. Organization.**

On December 18, 1997, Raytheon announced the completion of its merger with the Hughes Corporation and the formation of Raytheon Systems Company, a subsidiary of Raytheon Company. Raytheon Systems Company consisted of 5 segments, including Training and Services (T&S). Raytheon T&S segment, established January 1, 1999, combined the following legacy organizations: Rayserv (legacy Raytheon) and Hughes Technical Services Company, Raytheon Air Warfare Center, Raytheon STX, Raytheon Electronic Technologies Inc., Raytheon Data Systems, and Raytheon Training Inc., Training Operations and Commercial Training Divisions.

On October 18, 1999, Raytheon's T&S segment reorganized, transforming four (4) divisions into thirteen (13) separate business units. This new organization, renamed Raytheon Technical Services Company (RTSC), became fully operational January 3, 2000. In the new structure, the Raytheon Systems Company (RSC) was eliminated. Accordingly, RTSC and other Raytheon Company segments will report directly to the Corporate Executive Office. RTSC now has its headquarters in Reston, VA, [REDACTED]:

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]

[REDACTED]:

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

**Pages 45 – 56 have been Redacted**

**Audit Report No. 6161-2002P10100001**

**DCAA PERSONNEL**

Telephone	No.
Primary contact(s) regarding this audit: [REDACTED]	[REDACTED]

Other contact(s) regarding this audit report: [REDACTED] Branch Manager	[REDACTED]
--	------------

	FAX No.
Herndon Branch Office	[REDACTED]

	E-mail Address
Herndon Branch Office	[REDACTED]

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

***RELEVANT DATES***

NSF OIG Request dated July 31, 2003

**AUDIT REPORT AUTHORIZED BY:**

/Signed/

[REDACTED]  
Branch Manager  
DCAA Herndon Branch Office

**Audit Report No. 6161-2002P10100001**

**AUDIT REPORT DISTRIBUTION AND RESTRICTIONS**

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Polar Services  
Raytheon Technical Services Company  
12160 Sunrise Valley Drive  
Reston, VA 20191  
(Copy furnished thru ACO)

RESTRICTIONS

**REDACTED**

# **APPENDIX 1**

## **Certificate of Final Indirect Costs**

## CERTIFICATE OF FINAL INDIRECT COSTS

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal ("Raytheon Technical Services Company 2002 Overhead Proposal" dated June 30, 2003) to establish final indirect rates for labor overhead, G&A, and fringe for fiscal year 2002, are allowable in accordance with the cost principles of the Federal Acquisition regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and
2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: Raytheon Technical Services Company

Signature: 

Name of Certifying Official: 

Title: 

Date of Execution: 6/30/03

# **APPENDIX 2**

## **Contractor's Response to Results of Audit**

-----Original Message-----

**From:** [REDACTED] Mr, DCAA

**Sent:** Wednesday, January 12, 2005 3:02 PM

**To:** [REDACTED]

**Subject:** FW: Response to DCAA Draft Audit Report 6161-2004P10160205

XXXXXXXXXX

I have attached the response received from RTSC that we need to analyze and provide comments. I will be at RTSC next Tuesday as usual to talk about our comments to the RTSC response.

[REDACTED]

-----Original Message-----

**From:** [REDACTED]

**Sent:** Tuesday, December 14, 2004 2:03 PM

**To:** [REDACTED] Mr, DCAA

**Cc:** [REDACTED]

**Subject:** Response to DCAA Draft Audit Report 6161-2004P10160205

[REDACTED]

The enclosed document is in response to DCAA Draft Audit Report No. 6161-2004P10160205.

[REDACTED]

Raytheon Technical Services Co. LLC  
12160 Sunrise Valley Drive, Suite 500  
Reston, VA 20191

[REDACTED]

Re: Response to DCAA Draft Audit Report No. 6161-2004P10160205

This letter is the response of Raytheon Technical Services Company LLC (RTSC) to DCAA Draft Audit Report No. 6161-2004P10160205 dated August 24, 2004. In simple terms, the Draft Audit Report questions the allowability of approximately \$27.8 million in costs allocated to National Science Foundation (NSF) Contract No. OPP 0000373 (the Contract) in 2000-02. The questioned costs fall into three broad categories: 1) approximately \$12.5 million in costs incurred by RTSC's Polar Services division (Polar) and charged as direct costs of the Contract; 2) approximately [REDACTED] in indirect costs in excess of the caps on overhead and G&A included in the Contract; and 3) approximately [REDACTED]. We believe that it is important to note at the outset that the [REDACTED] in unallowable over-ceiling costs identified in the Draft Audit Report have neither been billed to NSF nor recovered in any way and that Polar has no intention of attempting to recover those costs. We disagree with the conclusions in the Draft Audit Report on the other two issues for the reasons stated below.

### Background

The Contract is a cost-reimbursement contract for services in support of the NSF scientific mission in Antarctica. Polar won the contract in a competition conducted in 1999. Polar's predecessor, Antarctic Support Services (ASA), had only one contract and charged all of its costs direct to that contract. ASA had no indirect costs. Because it was a joint venture, its "parents" did not allocate "home office" costs to ASA. When ASA needed support from its corporate parents, it "purchased" that support and charged the costs direct to the predecessor contract. Although NSF's RFP for the Contract did not specifically require that all costs be charged directly to the Contract, it was apparent that the RFP contemplated that a successor contractor would have a similar structure with minimal indirect costs. As a result, RTSC's proposal was designed to minimize indirect charging and maximize direct charging.

[REDACTED] that are classified as indirect costs and allocated to all the contracts in that business unit. In 1999 when RTSC was preparing the proposal for the Contract, there were a few RTSC business units that were stand-alone organizations, like the contemplated Polar business unit. Like ASA, those business units charged virtually all of their costs as direct costs. Those business units were not included in the allocation base for most Raytheon corporate and RTSC costs, so they had very low indirect cost rates. RTSC's proposal assumed that the Polar business unit would [REDACTED]

---

<sup>1</sup> Because the Draft Audit Reports makes changes in both the overhead pool and in the base used to allocate the overhead pool, we do not agree with the precise amounts calculated by DCAA for each category of costs. For example, because DCAA has erroneously reclassified certain [REDACTED] by Polar from direct costs to overhead and because of an undetected error in the 2000 submission, the amount subject to the overhead cap in the DCAA report is overstated. On the other hand, we also discovered undetected errors in the incurred cost submission for 2002 that would increase the amount of overhead rendered unallowable by the cap. When the 2000 and 2002 submissions are corrected, the amount of unallowable over-ceiling cost will be approximately [REDACTED]. For clarity, we have used the amounts in the DCAA Draft Audit Report in this response, but those amounts are incorrect.

[REDACTED]

[REDACTED]

[REDACTED] RTSC did not expect that its actual overhead and G&A expenses would exceed the contractual caps by more than [REDACTED].

NSF accepted RTSC's proposal and the Contract contemplates that [REDACTED] normally charged as indirect costs would be charged directly to the Contract. In accordance with its [REDACTED] and the terms of the Contract, the Polar business unit has consistently classified all costs incurred in the Polar business unit as direct costs. In fact, NSF directed that Polar charge the locally incurred management costs for Polar to the General Management CLIN in the Contract and Polar has complied with that direction.

After the Contract was awarded to Polar late in 1999, ASA protested the award. Polar began performance of the Contract shortly after award, but the protest continued for much of 2000. The protest and uncertainty about the validity of the Contract created some confusion during 2000. The initial award was for a period of five years, with an option for another five years. NSF has exercised that option and the Contract is currently expected to extend until 2010.

[REDACTED]. As a result, the costs allocated to the Contract from Raytheon and RTSC substantially exceeded the [REDACTED] overhead cap included in the Contract. Because NSF directed that Polar use the ASA Annual Program Plan (APP) to report its costs at the outset of the Contract in early 2000 and because Polar complied with that direction, [REDACTED]

After considering various alternatives in early 2001, RTSC decided that some of the costs being allocated to Polar by Raytheon and RTSC were, in fact, replacing costs that RTSC had expected to incur locally at Polar and charge direct to the Contract. Polar decided to reclassify some of the costs allocated by RTSC and Raytheon as other direct costs (ODCs) and to charge those costs

directly to the Contract rather than including them as overhead costs subject to the [REDACTED] in the Contract. Polar notified NSF of that decision in a letter dated April 16, 2001, and identified the types of cost that had been classified as ODCs in that letter. In response to that letter, NSF told Polar that the allowability of its ODCs would be determined after the costs had been audited. The Draft Audit Report, prepared over three years thereafter, is the first time that any Government representative has objected to the approach adopted by Polar in 2001. Polar appreciates this opportunity to explain the rationale for its classification of the costs as ODCs.

Polar did not classify as ODCs any costs allocated to the Contract as G&A, nor did it classify all of the [REDACTED] to the Contract as ODCs. In fact, the total amount that Polar has claimed and recovered on the Contract during the initial 5-year term of the Contract is approximately [REDACTED] than the actual costs recorded as indirect costs on the Contract. That [REDACTED] on the Contract reflects the benefit that NSF has realized as a result of the contractual caps on G&A and overhead.

We now turn to the issues raised in the Draft Audit Report.

[REDACTED]

We do not believe that DCAA was privy to the contractual agreement reached by the parties, so DCAA may not appreciate the connection between that agreement and the disclosed and approved practice used by Polar to implement that agreement. The parties clearly and explicitly agreed that all [REDACTED] costs would be charged as direct costs on the Contract, including costs that would normally be indirect. In discussions after award, NSF instructed Polar to charge normally indirect costs to the [REDACTED] and Polar has complied with that instruction. RTSC's disclosed practice was and is that [REDACTED]. Because the parties had specifically agreed that the costs at issue would be charged direct, there was and is a contractual requirement to charge them direct. In addition, RTSC's disclosed practice [REDACTED]. The costs at issue exclusively benefit and are identified to the Polar contract. Accordingly, Polar has complied with the requirements of the Contract, the instructions of its customer, and [REDACTED].

[REDACTED] makes sense in a situation like this where there is only one contract in the business unit and where all [REDACTED] will ultimately be charged to that contract, whether charged directly or indirectly.

The DCAA Draft Audit Report asserts that Polar may not charge the costs at issue directly to the Contract because there are multiple "final cost objectives" within the Contract. Under this interpretation, because the Contract has multiple final cost objectives, Polar is required to collect its normally indirect costs in an overhead pool and allocate those costs as overhead to the various final cost objectives within the Contract. The effect of the DCAA position is to include [REDACTED] in the costs [REDACTED].

There are at least three fundamental problems with this position. First, and most important, it is completely inconsistent with the understanding of the parties and the requirements of the Contract.

The parties expressly agreed that all [REDACTED]

[REDACTED]. Even if DCAA were correct about the existence of multiple final cost objectives, the assertion that the costs at issue should be subject to the overhead cap would be inconsistent with the parties' express and clear agreement.

The second problem with the DCAA position is that the Contract is a single final cost objective. The term "final cost objective" is defined in the CAS regulations as follows:

***Final cost objective means a cost objective which has allocated to it both direct and indirect costs, and in the contractor's accumulation system is one of the final accumulation points.***

48 C.F.R. § 9904.402-30(a)(4). Under that definition, the contractor is entitled to decide what is a final accumulation point in its system. In RTSC's accumulation system, the Contract is the final cost objective. [REDACTED]

In most circumstances, contracts are final cost objectives. While we agree with DCAA that there are circumstances in which a single contract could encompass multiple final cost objectives, this is clearly not one of them. In our experience, contracts that include multiple final cost objectives are contracts that cover two or more distinct and disparate activities, such as production of goods and a separate design task to develop a variant of that product. [REDACTED]

Finally, the parties intended and expressly agreed that the [REDACTED] identified as unallowable indirect costs would be charged direct to the contract. There is no basis to disallow that direct cost.

#### Costs in Excess of the Indirect Cost Caps

The Draft Audit Report also identifies as unallowable and "claimed over ceiling" approximately [REDACTED] in costs that have been allocated to the Contract. We agree with DCAA that the costs at issue are not allowable. We also agree that the costs have been *allocated* to the Contract, as is required by the relevant regulations and by [REDACTED], but we disagree that they have been "claimed" and they certainly have not been recovered. The costs are included in the actual incurred cost submission and they are charged to the Contract on Polar's books of account because they are actual costs and they must be recorded on the books, but we are aware of no evidence that the costs have ever been included in any billing or otherwise "claimed" by Polar. Polar has no intention of claiming or attempting to recover those costs. While the Draft Audit Report is correct that the costs are unallowable, it fails to acknowledge that Polar has treated them as unallowable. Moreover, by labeling the costs as "claimed" the Draft Audit Report creates the erroneous impression that Polar has somehow tried to recover the costs. There is no issue about these costs and the final Audit Report should acknowledge that fact.

RTSC made a deal with NSF about the unallowability of indirect costs in excess of the caps included in the Contract. Polar has lived up to that deal and is not complaining about the impact of the caps on indirect costs as they were reasonably anticipated when the caps were proposed and negotiated. What we disagree with is the application of the caps to [REDACTED] that were expressly excluded from the application of the caps in RTSC's proposal, discussed in the section above, and application of the caps to costs that RTSC anticipated incurring locally, discussed in the next section.

### Other Direct Costs

The final category of costs addressed in the Draft Audit Report raises more complicated issues, but it is equally without merit. The principal reason that we requested additional time to respond to the Draft Audit Report was because we wanted to be sure that we understood the issues related to ODCs and were comfortable with the Company's position on those issues. We retained outside counsel and a major accounting firm to review the Company's position. Their review is now substantially complete and they have concluded that the Company's position reflects a fair attempt to implement the original intent of the Contract in light of the way that circumstances have changed since award.

As explained above, the proposal for the Contract and the rate caps in the contract were based on express assumptions about the nature of the costs that would be included in the capped overhead rates. [REDACTED]

[REDACTED]. The cost proposal for the Contract originally assumed that there would be similar arrangements for the Polar business unit and that such costs would be incurred locally and charged directly to the Contract, as provided in the Contract and in RTSC's Disclosure Statement.

[REDACTED] As a result, Polar has in effect purchased certain systems and support services from [REDACTED]. As a result, many types of cost that RTSC expected to [REDACTED] and charge direct to the Contract have instead been charged as [REDACTED]. If those [REDACTED] treated as overhead, they cause the actual overhead costs to exceed the capped rates in a way that we do not believe either party anticipated or intended. When Polar realized late in 2000 what had happened, it reviewed the various options available to it and decided that the best way to implement the parties' intent would be to reclassify appropriate overhead costs as ODCs, charged directly to the contract as the parties expected and intended.

It is important to note that Polar did not reclassify any [REDACTED], even though the actual [REDACTED] has substantially exceeded the capped rate of [REDACTED]. Nor has Polar reclassified all of the overhead costs in excess of the capped rates. Even after the reclassification of some overhead costs, the actual rates are still substantially in excess of the capped rates. NSF has

received the benefit of the corporate and RTSC systems and support, but it would not be required to pay for that benefit if the costs were classified as overhead.

In order to correct that obvious inequity and to implement what we believe to have been the intent of both parties, we attempted to identify costs [REDACTED] that were, in essence, replacements for costs that both parties had anticipated would be incurred [REDACTED] and charged direct to the Contract. We believe that we have reclassified costs fairly in a way that is consistent with the parties' original intent, but we also recognize that the reclassification involved an exercise of judgment and that reasonable people might disagree about how that judgment should be exercised. We disclosed what we intended to do and why we intended to do it fully and completely to NSF in a letter dated April 16, 2001. NSF neither accepted nor rejected our solution to the problem we were facing, but indicated that the appropriateness of the reclassifications would have to be determined after an audit. Now, over three years later, there has finally been an audit. We do not believe that the DCAA position that all of the costs at issue must remain in overhead, no matter what the parties intended or what is fair in the circumstances, is a supportable position.

### Conclusion

The audit findings concerning [REDACTED] costs and "claimed over ceiling" costs should be withdrawn. They are demonstrably wrong. The audit finding that none of the ODCs at issue are properly classified as direct costs we believe is also incorrect, but we recognize that the amounts so classified are a matter of judgment and we would be pleased to discuss them with you.