



OFFICE OF
INSPECTOR GENERAL
U.S. DEPARTMENT OF THE INTERIOR

The U.S. Geological Survey and Quantum Spatial, Incorporated, Did Not Always Comply With Federal Regulations, Policies, and Award Terms for Task Order No. 140G0218F0251 and Contract No. G16PC00016

This is a revised version of the report prepared for public release.

In recognition of Secretarial Order No. 3380, we are providing estimated costs associated with certain work products. Applying a formula involving prior salary and benefit expenses, we estimate the cost of preparing this report to be \$118,000.



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INSPECTOR GENERAL
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Memorandum

AUG 25 2020

To: Scott Morton
Bureau Procurement Chief, U.S. Geological Survey

From: Chris Stubbs *Chris Stubbs*
Director, Office of Financial and Contract Audits

Subject: Final Audit Report – *The U.S. Geological Survey and Quantum Spatial, Incorporated, Did Not Always Comply With Federal Regulations, Policies, and Award Terms for Task Order No. 140G0218F0251 and Contract No. G16PC00016*
Report No. 2018-FIN-051

This report presents the results of our audit of Task Order No. 140G0218F0251 and Contract No. G16PC00016 between the U.S. Geological Survey (USGS) and Quantum Spatial, Incorporated.

We make two recommendations regarding invoice review and three recommendations regarding contract administration to help the USGS improve its contract oversight and maintain complete and comprehensive documentation. Based on the USGS' response to our draft report, we consider all five recommendations to be resolved but not implemented. We will refer the recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking.

If you have any questions about this report, please contact me at 202-208-5745.

The legislation creating the Office of Inspector General requires that we report to Congress semiannually on all audit, inspection, and evaluation reports issued; actions taken to implement our recommendations; and recommendations that have not been implemented.

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Results in Brief

We audited Task Order No. 140G0218F0251 and Contract No. G16PC00016 between Quantum Spatial, Incorporated (QSI) and the U.S. Geological Survey (USGS) to determine whether (1) QSI complied with all applicable Federal regulations and terms and conditions of the task order and the governing contract, (2) the USGS complied with all applicable Federal regulations, USGS policies and procedures, and award terms and conditions when awarding and monitoring the contract and the task order, and (3) the USGS negotiated a fair and reasonable price for services rendered under the task order. We reviewed supporting documentation and compliance from the beginning of the solicitation phase in October 2014 through December 2018.

We found that QSI and the USGS did not always comply with applicable regulations, policies, and contract terms and conditions. Specifically:

- QSI submitted invoices that were mathematically incorrect.
- QSI submitted invoices that did not include contract line item numbers as required.
- The USGS did not include a required clause in the contract.
- The USGS did not document the contract negotiations properly.

In addition, we found that the USGS negotiated a fair and reasonable price for the task order.

We make two recommendations regarding invoice review and three recommendations regarding contract administration to help the USGS improve its contract oversight and maintain complete and comprehensive documentation. Based on the USGS' response to our draft report, we consider all five recommendations to be resolved but not implemented. We will refer the recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking.

Introduction

Objectives

The objectives of our audit were to determine whether:

1. Quantum Spatial, Incorporated (QSI) complied with all applicable Federal regulations and terms and conditions of the task order and the governing contract
2. The U.S. Geological Survey (USGS) complied with all applicable Federal regulations, USGS policies and procedures, and award terms and conditions when awarding and monitoring the contract and the task order
3. The USGS negotiated a fair and reasonable price for services rendered under Task Order No. 140G0218F0251

See Appendix 1 for the audit scope and methodology.

Background

On February 9, 2018, the U.S. Congress passed the Bipartisan Budget Act of 2018 (Pub. L. No. 15-123), which provided funding for recovery from the 2017 wildfires and necessary expenses related to the consequences of Hurricanes Harvey, Irma, and Maria. The USGS received \$42,246,000 in supplemental appropriations as part of the legislation.

The USGS had previously awarded an indefinite-delivery/indefinite-quantity (IDIQ) contract, Contract No. G16PC00016, to QSI on February 10, 2016.¹ The contract was for photogrammetric mapping, survey, and other services. The contract ceiling was \$750 million over a 12-month base period plus four additional 12-month option periods.

Using the supplemental appropriations funding from the Bipartisan Budget Act, the USGS awarded firm-fixed-price Task Order No. 140G0218F0251 under Contract No. G16PC00016 to QSI in the amount of \$3,007,097 with a period of performance from May 15, 2018, to May 31, 2021. The task order was modified to add \$2,168,963 as of December 31, 2018, increasing the total value to \$5,176,060. The purpose of the task order was to provide mapping and surveying services for approximately 19,990 square miles in northern California. The images will be used to support various programs of the Federal Emergency Management Administration, the U.S. Forest Service, and California Wildfire.

From this point forward in the report, we use the term “contract” to refer to both the IDIQ contract and the task order issued under it.

¹ Indefinite-delivery/indefinite-quantity contracts do not define the exact time or quantity of services or supplies to be provided within a fixed time period. They provide the rate for those services or supplies and other terms and conditions the contractor must meet. This provides flexibility to best meet U.S. Government needs when the exact supplies or services required are not known at the time of award.

Findings

We found that QSI and the USGS did not always comply with applicable regulations, policies, and contract terms and conditions. Specifically:

- QSI submitted invoices that were mathematically incorrect.
- QSI submitted invoices that did not include contract line item numbers (CLINs) as required.
- The USGS did not include a required clause in the contract.
- The USGS did not document the contract negotiations properly.

In addition, we found that the USGS negotiated a fair and reasonable price for services rendered under the task order.

QSI Did Not Comply With Contract Terms

QSI Submitted Mathematically Incorrect Invoices

We examined all the invoices paid during our scope—a total of seven invoices from the start of the task order on May 15, 2018, to December 31, 2018, totaling \$2,450,865. We found that five of those invoices were mathematically incorrect (see Figure 1).

Figure 1: Math Errors on QSI Invoices Submitted For Work Performed From May 15, 2018, to December 31, 2018

Invoice No.	Cumulative Billed Amount (\$)	Cumulative Correct Amount (\$)	Cumulative Over/(Under) Billed (\$)
1	60,142	60,142	–
2	105,248	105,248	–
3	350,627	350,026	601
4	562,327	958,606	(396,279)
5	1,200,846	1,270,205	(69,359)
6	1,337,912	1,359,233	(21,321)
7	2,450,865	2,449,413	1,452

We found that QSI did not correctly calculate the cumulative amount billed, which resulted in QSI either overbilling or underbilling the USGS. For each billable item, the invoice shows the percentage of work completed at that time. The billable amount is determined by multiplying the fixed total cost by the percentage complete (see Figure 2 for an example invoice). QSI made errors in those calculations that resulted in incorrect cumulative amounts billed.

Figure 2: QSI Invoice No. 4, With Errors Identified

Item No.	Supplies or Services	Percent Complete	Delivery Value	Billable Amount	Previous Amount Billed	Amount
0001		100.00%	\$103,521.20	\$103,521.20	\$60,141.94	\$0.00
0002		0.00%	\$362,324.20	\$0.00	\$0.00	\$0.00
0014		0.00%	\$103,521.20	\$0.00	\$0.00	\$0.00
0006		0.00%	\$51,760.60	\$0.00	\$0.00	\$0.00
0007		34.00%	\$2,225,705.80	\$444,448.97	\$232,749.32	\$211,699.65
0008		19.00%	\$517,606.00	\$57,736.26	\$57,736.26	\$0.00
0003		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0004		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0005		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0009		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0010		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0011		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0012		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0013		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0015		0.00%	\$51,760.60	\$0.00	\$0.00	\$0.00
0016		0.00%	\$517,606.00	\$0.00	\$0.00	\$0.00
Subtotal.....						\$211,699.65
TOTAL AMOUNT NOW DUE.....						\$211,699.65
Previously Billed		\$350,627.53				
Billed This Invoice		\$211,699.65				
Total Billing to Date		\$562,327.18				

As an example, looking at Invoice No. 4 above, QSI made the following math errors in line items 1, 7, and 8:

- For item 1, QSI subtracted the previous amount billed of \$60,142 from the billable amount of \$103,521 and recorded \$0 as the cumulative amount instead of \$43,379.
- For item 7, QSI multiplied the delivery value of \$2,225,706 by 34 percent complete and recorded \$444,449 instead of the correct amount of \$756,740, an underbilling of \$312,291.
- For item 8, QSI multiplied the delivery value of \$517,606 by 19 percent complete and recorded \$57,736 instead of the correct amount of \$98,345, an underbilling of \$40,609.

The total of all these errors was an underbilling of \$396,279 for Invoice No. 4. Across all seven invoices, the cumulative amount overbilled was \$1,452, as shown in Figure 1.

QSI acknowledged the invoicing discrepancies we noted and took immediate corrective action. The miscalculations resulted from human error during invoice preparation and were not caught

because an independent party did not perform a final check. QSI stated that it implemented a change to the invoice process. Each project manager now receives a draft copy of the monthly invoice for review, paying particular attention to validating the amount billed, percentage complete, delivery value, and total amount for each item.

At the USGS, the math errors in the invoices went unnoticed by the contracting officer's representative (COR), who is responsible for invoice review per USGS policy. According to the chief of the [REDACTED] Acquisition Branch, neither the financial operating procedures nor the accounting operating procedures calls for reviewing invoices for math errors, but CORs are expected to review them for accuracy and seek any needed correction. The COR recognized that reviewing the math on invoices was his responsibility and that he failed to do so.

Recommendation
We recommend that the USGS: 1. Develop and implement procedures to hold the COR accountable for reviewing invoices for accuracy

QSI Submitted Invoices Without Required CLINs

Contract line item numbers (CLINs) define the supplies or services to be delivered and characteristics such as pricing and funding source. CLINs improve the accuracy, traceability, and usability of procurement and contract data.

We found that none of the seven QSI invoices we examined provided costs by CLIN as required in the contract and USGS guidance for invoicing and payment (see Figure 3 for an example invoice). In addition, the contract contained four CLINs, two of which had different funding sources.

When a contractor does not include CLINs on invoices, the USGS cannot determine the total costs incurred for each CLIN or properly monitor CLIN progress for each funding source.

The USGS contracting officer (CO) did not return the invoices for correction because he believed that CLINs are used for accounting purposes and not required to be acknowledged on the invoices. He said that the accounting team uses CLINs to manage the multiple accounting codes used to fund the task order.

Figure 3: QSI Invoice No. 7 Shows a List of Items Billed But Does Not Segregate Costs by CLIN

INVOICE PERIOD OF PERFORMANCE:		12/01/18 - 12/31/18			
BILLING METHOD:		Milestone Percent			
TASK ORDER VALUE:		\$5,176,060.00			

<u>Item No.</u>	<u>Supplies or Services</u>	<u>Percent Complete</u>	<u>Delivery Value</u>	<u>Billable Amount</u>	<u>Previous Amount Billed</u>	<u>Amount</u>
0001		100.00%	\$103,521.20	\$103,521.20	\$103,521.20	\$0.00
0002		100.00%	\$362,324.20	\$362,324.20	\$0.00	\$362,324.20
0003		65.80%	\$51,760.60	\$34,058.47	\$0.00	\$34,058.47
0004		65.80%	\$2,225,705.80	\$1,464,514.42	\$1,176,654.40	\$287,860.02
0005		55.00%	\$517,606.00	\$284,683.30	\$57,736.26	\$226,947.04
0006		80.00%	\$155,281.80	\$124,225.44	\$0.00	\$124,225.44
0007		49.00%	\$155,281.80	\$77,537.37	\$0.00	\$77,537.37
0008		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0009		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0010		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0011		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0012		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0013		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0014		0.00%	\$155,281.80	\$0.00	\$0.00	\$0.00
0015		0.00%	\$517,606.00	\$0.00	\$0.00	\$0.00
Subtotal.....						\$1,112,952.54
TOTAL AMOUNT NOW DUE.....						\$1,112,952.54
Previously Billed		\$1,337,911.87				
Billed This Invoice		\$1,112,952.54				
Total Billing to Date		\$2,450,864.41				

Recommendation

We recommend that the USGS:

2. Work with QSI to identify the appropriate CLINs for the costs presented on all invoices

The USGS Did Not Comply With Federal Regulations and Award Terms

The USGS Did Not Include a Required Clause in the Contract

The USGS excluded a required clause from the contract. The Federal Acquisition Regulation requires inclusion of the “Contractor Code of Ethics and Conduct” clause (FAR § 52.203-13) if the expected value of a contract exceeds \$5.5 million and the period of performance is 120 days or more. The clause provides requirements for disclosure of fraud, conflicts of interest, bribery, and false claims and requirements for business ethics and establishing a system of internal controls.

Because the IDIQ contract value had a ceiling of \$750 million and the task order was expected to exceed \$5.5 million with a period of performance of more than 120 days, the USGS should have

included this clause in the contract. In addition, we found that the USGS' accounting operating procedures do not address verifying that all required clauses are included.

The Federal Acquisition Regulation, specifically FAR § 52.3, provides a matrix to help contracting personnel determine which required clauses should be included in a contract. While the chief of the [REDACTED] Acquisition Branch told us that review of required contract clauses using the matrix is part of the process of writing contracts, the requirement was not documented in the accounting operating procedures. The CO did not include the "Contractor Code of Business Ethics and Conduct" clause in the contract, and the error was not identified during management review.

Without robust contract review policies and procedures, the USGS cannot ensure the protection of the U.S. Government's interest and could have difficulty enforcing contract requirements.

Recommendations
We recommend that the USGS: 3. Modify Contract No. G16PC00016 to include FAR § 52.203-13 4. Provide instructions in the accounting operating procedures that address required contract clauses and notify contracting personnel of the update

The USGS Did Not Document the Contract Negotiations Properly

When documenting the contract negotiations, the CO did not include a description of the status of QSI's management systems, such as ethics or quality control, as required by FAR § 15.406-3(4). Moreover, when considering QSI's ability to perform the work, the CO did not document the necessary operating controls such as payroll, ethics, or invoicing, as required by FAR § 9.104-1(e).

The chief of the USGS Office of Acquisition and Grants stated the template and checklist used mirror the FAR requirements to ensure that COs document all the required information in the contract file, and that in this case the CO's omissions were an oversight. The chief also stated that the CO did not document the QSI systems because the USGS had experience with the contractor and no problems in the past, so the documentation was unnecessary. Regardless of past experience, documenting the status of management systems and operating controls during negotiations is necessary because a vendor's corporate environment may have changed. Without proper documentation of contract negotiations, it is unclear if the CO has considered all the information necessary to determine whether a contractor is able to perform the contract scope of work and has controls to protect against fraud, waste, and abuse.

Recommendation
We recommend that the USGS: 5. Review any open procurements in which the CO participated to ensure that negotiation documentation was completed in accordance with FAR §§ 15.406-3 and 9.104-1

The USGS Negotiated a Fair and Reasonable Price for the Task Order

We found that the USGS negotiated a fair and reasonable price for services rendered under the task order in accordance with FAR § 15.402, "Pricing Policy." We analyzed the price negotiation memorandum and the USGS' independent Government cost estimate to determine that the price obtained was fair and reasonable.

Conclusion and Recommendations

Conclusion

Although the USGS obtained a fair and reasonable price for QSI services, we found that QSI and the USGS did not always comply with applicable regulations, policies, and contract terms and conditions. QSI invoices, which the USGS paid, were inaccurate and did not segregate costs by CLIN as required by the contract. The USGS must provide better oversight when reviewing invoices and verify that costs are accumulated in accordance with contract terms.

In addition, we found that the USGS did not include a required clause in the contract and improperly documented contract negotiations regarding QSI's management systems and operational controls. Comprehensive and complete documentation is critical to protect the Government's interest and ensure prospective contractors can perform the scope of work with appropriate internal controls.

Recommendations Summary

We issued a draft version of this report to the USGS to review and respond. Based on the response, we consider all five recommendations resolved but not implemented. See Appendix 2 for the full text of the USGS' response and Appendix 3 for the status of recommendations.

We recommend that the USGS:

1. Develop and implement procedures to hold the COR accountable for reviewing invoices for accuracy

USGS Response: The USGS concurred with our finding and recommendation. Its acquisition operating procedures will be updated to include COR procedures for invoicing. If a COR fails to do his or her duties or behave in a responsible or ethical way, the Office of Acquisition and Grants will alert the supervisor to the situation, refer any applicable matter to the appropriate authority, and take appropriate action (including suspension of COR appointment, where necessary).

OIG Comment: Based on the USGS' response, we consider Recommendation 1 resolved but not implemented.

2. Work with QSI to identify the appropriate CLINs for the costs presented on all invoices

USGS Response: The USGS concurred with our finding and recommendation. The CO will incorporate invoicing instructions into the award for all CLINs.

OIG Comment: Based on the USGS' response, we consider Recommendation 2 resolved but not implemented.

3. Modify Contract No. G16PC00016 to include FAR § 52.203-13

USGS Response: The USGS concurred with our finding and recommendation. The CO will modify the award as recommended.

OIG Comment: Based on the USGS' response, we consider Recommendation 3 resolved but not implemented.

4. Provide instructions in the accounting operating procedures that address required contract clauses and notify contracting personnel of the update

USGS Response: The USGS concurred with our finding and recommendation. The USGS will update the acquisition operating procedures accordingly and will notify contracting personnel of the update.

OIG Comment: Based on the USGS' response, we consider Recommendation 4 resolved but not implemented.

5. Review any open procurements in which the CO participated to ensure that negotiation documentation was completed in accordance with FAR §§ 15-406-3 and 9.104-1

USGS Response: The USGS concurred with our finding and recommendation. The USGS will review all open procurements assigned to the CO to ensure compliance.

OIG Comment: Based on the USGS' response, we consider Recommendation 5 resolved but not implemented.

Appendix 1: Scope and Methodology

Scope

We performed an audit of Task Order No. 140G0218F0251 under Contract No. G16PC00016 between the U.S. Geological Survey (USGS) and Quantum Spatial, Incorporated (QSI). We examined QSI's and the USGS' compliance with applicable Federal regulations, USGS policies and procedures, and terms and conditions of the task order and the governing contract from the beginning of the solicitation phase in October 2014 to December 2018.

Methodology

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

To accomplish our objectives, we:

- Gained an understanding of the Federal Acquisition Regulation and U.S. Department of the Interior guidance related to contract compliance
- Interviewed the contracting officer, QSI employees, and other appropriate individuals
- Identified compliance requirements in the contract
- Examined supporting documentation related to contract negotiations, invoicing, progress reports, and wage determination provided by QSI and the USGS
- Tested invoices, progress reports, and labor expenditures to determine compliance with Federal regulations, USGS policies and procedures, and contract terms and conditions

In planning and performing our audit, we obtained an understanding of timekeeping, progress reporting, invoicing, and file maintenance for contract negotiations to design audit procedures for the purpose of developing our findings and conclusion, but not for the purpose of forming a conclusion on the effectiveness of internal control. Our audit was not designed to identify all deficiencies in internal control and therefore, significant deficiencies may exist that have not been identified.

We relied on computer-generated general ledger data to verify QSI's compliance with Federal regulations and contract terms. To assess the reliability of the computer-generated general ledger provided by QSI, we performed testing for obvious errors in compliance, reviewed related supporting documentation, and interviewed QSI officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this audit.

Appendix 2: Response to Draft Report

The U.S. Geological Survey's response to our draft report follows on page 13.

June 8, 2020

Memorandum

To: Chris Stubbs
Director, Office of Financial and Contract Audits

From: Becky Bageant /signed/
Audit Liaison Officer, U.S. Geological Survey

Subject: U.S. Geological Survey's (USGS) response to the Office of Inspector General (OIG) Draft Audit Report "*U.S. Geological Survey and Quantum Spatial, Incorporated, Did Not Always Comply with Federal Regulations, Policies, and Award Terms for Task Order No. 140G0218F0251 and Contract No. G16PC00016*" (Report No. 2018-FIN-051)

Please find below the USGS response to the draft report for the subject above.

Recommendation 1: Develop and implement procedures to hold the COR accountable for reviewing invoices for accuracy.

Response: Concur. The Acquisition Operating Procedures (AOP) will be updated to include Contracting Officer Representative (COR) procedures for invoicing. If a COR fails to do his or her duties or behave in a responsible or ethical matter, OAG will alert the supervisor to the situation, refer any applicable matter to the appropriate authority, and take appropriate action (including suspension of COR appointment, where necessary).

Target Date: August 1, 2020

Responsible Official: Jennifer Kelley, OAG Senior Policy Analyst

Recommendation 2: Work with Quantum Spatial, Incorporated (QSI) to identify the appropriate Contract Line Item Numbers (CLINs) for the costs presented on all invoices.

Response: Concur. The Contracting Officer (CO) will incorporate invoicing instructions into the award for all CLINs.

Target Date: August 1, 2020

Responsible Official: [REDACTED], Contracting Officer

Recommendation 3: Modify Contract No. G16PC00016 to include FAR § 52.203-13

Response: Concur. The Contracting Officer will modify the award as recommended.

Target Date: August 1, 2020

Responsible Official: [REDACTED], Contracting Officer

Recommendation 4: Provide instructions in the accounting operating procedures that address required contract clauses and notify contracting personnel of the update.

Response: Concur. The Acquisition Operating Procedures (AOP) will be updated accordingly, and contracting personnel notified of the update.

Target Date: August 1, 2020

Responsible Official: Jennifer Kelley, OAG Senior Policy Analyst

Recommendation 5: Review any open procurements in which the CO participated to ensure that negotiation documentation was completed in accordance with FAR § 9.104-1.

Response: Concur. All open procurements assigned to the CO will be reviewed to ensure compliance.

Target Date: August 1, 2020

Responsible Official: [REDACTED], OAG [REDACTED] Branch Chief

Appendix 3: Status of Recommendations

Recommendation	Status	Action Required
1, 2, 3, 4, and 5	Resolved but not implemented	We will refer these recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking.
