



## GENERAL SERVICES ADMINISTRATION

### Federal Supply Service

#### *Authorized Federal Supply Schedule Price List*

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order is available through GSA Advantage!™, a menu-driven database system. The INTERNET address for GSA Advantage!™ is: <http://www.GSAAdvantage.gov>.

## Multiple Award Schedule

**FSC Group:** Information Technology

**FSC Class:** DA01

**Contract Number:** 47QTCA18D001X

For more information on ordering from Federal Supply Schedules go to the GSA Schedules page at [GSA.gov](http://GSA.gov).

**Contract Period:** November 6, 2017 through November 5, 2022



**Quantum Spatial, Inc.**  
10033 MLK Street N Ste 200  
Saint Petersburg, FL 33716-3830

**Phone:** (727) 576-9500

**Fax:** (727) 576-9600

<http://www.quantumspatial.com>

**Contract Administrator:** John Nett

**Phone:** 608-556-2580

**E-mail:** [jnett@quantumspatial.com](mailto:jnett@quantumspatial.com)

**Business Size:** Other than Small Business

Price list current through Modification #PA-0011, Effective March 4, 2021

Prices Shown Herein are Net (discount deducted)



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## 1.0 CUSTOMER INFORMATION

**1a. Table of Awarded Special Item Number(s):**

SIN	Recovery	DESCRIPTION
511210	511210RC	Software Licenses
54151	54151RC	Software Maintenance Services
541370GEO	541370GEORC	Earth Observation Solutions
54151S	54151SRC	Information Technology Professional Services
OLM	OLMRC	Order Level Materials

**1b. Identification of the lowest priced model number and lowest unit price for that model for each special item number awarded in the contract. This price is the Government price based on a unit of one, exclusive of any quantity/dollar volume, prompt payment, or any other concession affecting price. Those contracts that have unit prices based on the geographic location of the customer, should show the range of the lowest price, and cite the areas to which the prices apply. See pages 13-42**

**1c. If the Contractor is proposing hourly rates, a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate “Not applicable” for this item. Description of job titles, experience, functional responsibility, and education for services performed: See pages 6-12**

**2. Maximum Order:** \$1,000,000

**3. Minimum Order:** \$100

**4. Geographic Coverage (Delivery Area):** Domestic delivery including all 50 states, Washington D.C., and Puerto Rico.

**5. Point(s) of Production (city, county, and state or foreign country):** Multiple points of production that are dependent on the ordering activity’s requirements.

**6. Discounts from List Prices or Statement of Net Price:** All GSA prices listed are shown net of discount and the IFF has been added.

**7. Quantity/Volume Discounts:** Summit Evolution FEDERAL – Software (S-DT-1100) and Summit Evolution FEDERAL – Annual Technical Support (MDT-1100) receive an additional discount per license:

2nd License	10%
3rd License	10%
4th License	15%
5th License	15%
6th License	20%
7th License	20%



8th License	25%
9th License	25%
10th License	30%
>11 Licenses	TBD

8. **Prompt payment terms. Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions.** Net 30 Days
9. **Foreign Items:** None.
- 10a. **Time of Delivery:** Delivery Schedule shall be specified in each Delivery Order/Task Order.
- 10b. **Expedited Delivery:** Negotiated at Delivery Order/Task Order level.
- 10c. **Overnight and 2-Day Delivery:** Negotiated at Delivery Order/Task Order level.
- 10d. **Urgent Requirements:** Contact Contractor.
11. **F.O.B Point(s):** Destination.
- 12a. **Ordering Address:** Quantum Spatial, Inc. 10033 MLK Street N Ste 200 Saint Petersburg, FL 33716-3884.
- 12b. **Ordering Procedures:** For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA's) are found in Federal Acquisition Regulation (FAR) 8.405-3.
13. **Payment Address:** Quantum Spatial, Inc. 10033 MLK Street N Ste 200 Saint Petersburg, FL 33716-3830.
14. **Warranty Provision:** Standard Commercial Warranty.
15. **Export Packing Charges:** Not Applicable.
16. **Terms and conditions of rental, maintenance, and repair:** Not Applicable.
17. **Terms and conditions of installation:** Not Applicable.
- 18a. **Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices:** Not Applicable.
- 18b. **Terms and conditions for any other services:** Not Applicable.
19. **List of Service and Distribution Points:** Not Applicable.
20. **List of Participating Dealers:** Not Applicable.
21. **Preventive Maintenance:** Not Applicable.



- 22a. **Special attributes such as environmental attributes (e.g., recycled content, energy efficiency, and/or reduced pollutants).** Not Applicable.
- 22b. **If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIT) supplies and services and show where full details can be found (e.g. contractor's website or other location.) The EIT standards can be found at: [www.Section508.gov/](http://www.Section508.gov/).** Not Applicable.
23. **Data Universal Numbering System (DUNS) Number:** 050264662.
24. **Notification regarding registration in System for Award Management (SAM) database.** Quantum Spatial is registered in SAM.



## 2.0 QUANUM SPATIAL LABOR CATEGORIES SIN 541370GEO and 54151S

### Program Manager

**Minimum/General Experience:** Must have a minimum of five (5) years of experience in the management of programs, projects, and/or personnel, and demonstrated experience in GIS, computer science/IT, engineering, or related field. May serve as Principal-In-Charge on certain projects.

**Functional Responsibility:** Responsible for timely execution of IT/GIS task order projects awarded under the master contract, project planning, task allocation/monitoring, risk management, analysis and design oversight, programming, testing and technical/user documentation. Maintains thorough understanding of software development lifecycle, IT/GIS project planning, risk management, project reporting, and proficiency in project management methods and tools (e.g., KANBAN boards, MS Project, Visio, MS Office suite, etc.).

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Business, Computer Science, or related field. Project Management Professional (PMP) or equivalent preferred.

### Project Manager

**Minimum/General Experience:** Must have a minimum of five (5) years of experience in GIS, computer science/IT, engineering, or related field relevant experience, with at least 2 years in a supervisory capacity.

**Functional Responsibility:** Leads IT/GIS projects and/or teams. Performs project planning and coordinates with other functional groups. Develops, maintains and reports on project plans and schedules; implements project controls; manages technical teams; leads communications with clients and stakeholders; ensures successful completion of all project tasks and deliverables with technical team support. May act as supervisor.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Business, Computer Science, or related field. (commensurate training and experience can be substituted for degree). Project Management Professional (PMP) or equivalent preferred.

### Senior Project Manager

**Minimum/General Experience:** Must have a minimum of seven (7) years of experience in GIS, computer science/IT, engineering, or related field relevant experience, with at least 5 years in a supervisory capacity.

**Functional Responsibility:** Leads complex IT/GIS projects and/or teams. Plans and coordinates with cross-functional groups. Develops, maintains and reports on project plans and schedules; implements project controls; manages technical teams; leads communications with clients and numerous stakeholders; ensures successful completion of all project tasks and deliverables with technical team support. Designs complex project management methodologies, incorporating



enterprise-level IT architectures, databases, and integration with geospatial systems. May act as supervisor.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Business, Computer Science, or related field. (commensurate training and experience can be substituted for degree). Project Management Professional (PMP) or equivalent preferred.

## Technical Architect

**Minimum/General Experience:** Must have a minimum of seven (7) years relevant experience, progressively advancing in GIS/IT.

**Functional Responsibility:** Leads complex GIS/IT technical solution teams. Responsible for defining and delivering client solutions. Evaluates and translates client requirements into technical architecture/solutions; develops, maintains and reports on project plans and schedules; leads communications with the technical teams, clients and stakeholder groups; ensures successful completion and delivery of enterprise solutions. Designs system architectures and consults on technology and business strategies. Supports solution implementation across project teams. May act as supervisor.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Information Technology (IT), GIS, or related field.

## Solutions Architect

**Minimum/General Experience:** Must have a minimum of three (3) years relevant experience, progressively advancing in GIS/IT.

**Functional Responsibility:** Develops and implements technical GIS/IT and earth observations workflows and technical project solutions.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Information Technology (IT), GIS, or related field.

## Systems Engineer

**Minimum/General Experience:** Must have a minimum of five (5) years relevant experience.

**Functional Responsibility:** Provides high-level technical expertise in the use of large computer mapping systems, products, and architectures, server clusters, and integration with enterprise systems (e.g., Esri ArcGIS). May serve as technical lead or project manager.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Engineering, May, or related field.



## Business Analyst

**Minimum/General Experience:** Must have a minimum of two to four (2-4) years of experience in GIS, computer science/IT, engineering, or related field relevant experience.

**Functional Responsibility:** Gathers and helps translate business requirements into enterprise GIS/IT solutions. Leads needs assessment communications with stakeholders and technical subject matter experts (SMEs). Schedules walkthroughs and business reviews to validate requirements. Identifies, validates and documents metadata usage and data lineage. Maps business process flows using diagramming software. Analyzes and synthesizes GIS/IT requirements data for use in recommending solutions. Leverages knowledge of GIS/IT concepts and principals.

**Minimum Education and Experience:** Bachelor's degree in Business, Computer Science, GIS, or related field.

## Technician I

**Minimum/General Experience:** Must have zero to two (0-2) years relevant experience in GIS.

**Functional Responsibility:** Performs basic IT administration, GIS/IT database and feature capture, data conversion, and/or database attribution, according to standard operating procedures and instructions, established by the organization, or industry best practices.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field.

## Technician II

**Minimum/General Experience:** Must have two to four (2-4) years relevant experience in GIS.

**Functional Responsibility:** Performs basic IT administration, GIS/IT database and feature capture, data conversion, and/or database attribution, according to standard operating procedures and instructions, established by the organization, or industry best practices.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field.

## Technician III

**Minimum/General Experience:** Must have a minimum of five (5) years relevant experience in GIS.

**Functional Responsibility:** Performs basic IT administration, GIS/IT database and feature capture, data conversion, and/or database attribution, according to standard operating procedures and instructions, established by the organization, or industry best practices.





**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field.

## Analyst I

**Minimum/General Experience:** Must have zero to three (3) years relevant experience.

**Functional Responsibility:** Performs basic data collection; data analysis; data development, manipulation, and conversion; data entry; map and graphic depictions; and documentation (e.g., IT and/or geospatial data and technologies). Assists in defining user requirements.

**Minimum Education and Experience:** Bachelor's degree in Natural Science, Computer Science, or related field.

## Analyst II

**Minimum/General Experience:** Must have a minimum of three (3) years relevant experience.

**Functional Responsibility:** Performs moderately complex data collection; data analysis; data development, manipulation, and conversion; data entry; map and graphic depictions; and documentation (e.g., IT and/or geospatial data and technologies). Assists in defining user requirements.

**Minimum Education and Experience:** Bachelor's degree in Natural Science, Computer Science, or related field. Professional GIS Certification preferred.

## Analyst III

**Minimum/General Experience:** Must have a minimum of six (6) years relevant experience.

**Functional Responsibility:** Performs complex data collection; data analysis; data development, manipulation, and conversion; data entry; map and graphic depictions; and documentation (e.g., IT and/or geospatial data and technologies). Assists in defining user requirements.

**Minimum Education and Experience:** Bachelor's degree in Natural Science, Computer Science, or related field. Master's degree preferred. Professional GIS Certification preferred.

## Technical Specialist

**Minimum/General Experience:** Must have a minimum of five (5) years of experience in GIS.

**Functional Responsibility:** Works with related software and programs to create and maintain data and/or maps that can be combined with geographically referenced data. Creates maps and graphs, using GIS software and related equipment.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field. Master's degree preferred. Professional GIS Certification preferred.



## Application Developer – Junior

**Minimum/General Experience:** Must have a minimum of two (2) years of application development experience.

**Functional Responsibility:** Develops, tests, implements, and supports new and existing small and medium sized GIS applications and spatial analysis tools, using various software/scripting code, applications programming interfaces (APIs), and development platforms.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field.

## Application Developer – Senior

**Minimum/General Experience:** Must have a minimum of five (5) years of application development experience.

**Functional Responsibility:** Provides senior level expertise in analyzing, designing, developing, testing, implementing, administering, and supporting new and existing medium and large-sized applications (including spatial analysis tools), using various computer software/scripting code, applications programming interfaces (APIs), and development platforms. May act as technical lead and/or project manager for certain projects.

**Minimum Education and Experience:** Bachelor's degree in Geography, GIS, Computer Science, or related field. Master's degree preferred.

## Database Developer – Junior

**Minimum/General Experience:** Must have a minimum of two (2) years of relevant experience.

**Functional Responsibility:** develops and maintains GIS-based relational databases of earth information and observations, and determines ways to organize and store data.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Geography, GIS, or related field.

## Database Developer – Senior

**Minimum/General Experience:** Must have a minimum of five (5) years of relevant experience.

**Functional Responsibility:** develops, maintains, and provides senior-level expertise regarding GIS-based relational database management systems for earth information and observations, and determines methods for organizing large and complex datasets.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Geography, GIS, or related field.



## Domain Expert

**Minimum/General Experience:** Must have a minimum of ten (10) years of experience in GIS, computer science/IT, engineering, or related field.

**Functional Responsibility:** Provides highly skilled/specialized consultative support to GIS/IT functional areas of a project. Responsible for high-level system development and/or analysis. Incorporates the design, integration, documentation, implementation and analysis on complex problems requiring extensive knowledge of the subject matter. Responsible for providing specialized support to contract task orders which may, or may not, be technical in nature.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Engineering, Geography, GIS, or related field. Master's degree or PhD in relevant field preferred. Professional certification in specialized subject matter likely.

## Computer Programmer

**Minimum/General Experience:** Must have two to four (2-4) years of relevant experience.

**Functional Responsibility:** Possesses technical expertise in the areas of system design and architecture, database process design, and coding principals related to GIS/IT systems and earth observations data storage and dissemination.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Mathematics, or related field. Master's degree highly desired.

## Computer Programmer - Senior

**Minimum/General Experience:** Must have a minimum of four (4) years of relevant experience.

**Functional Responsibility:** Possesses advanced technical expertise in the areas of system design and architecture, database process design, and coding principals related to GIS/IT systems and earth observations data storage and dissemination.

**Minimum Education and Experience:** Bachelor's degree in Computer Science, Mathematics, or related field. Master's degree highly desired.

## Survey Supervisor

**Minimum/General Experience:** Must have 3-5 years of relative experience, 2 years in a supervisory capacity.

**Functional Responsibility:** Supervises the work of technical staff and lower-level earth observations control survey personnel and serves as Party Chief, as necessary.

**Minimum Education and Experience:** Associates Degree (commensurate training and experience can be substituted for degree).



## Sensor Operator

**Minimum/General Experience:** Must have at least 1 year of relevant experience.

**Functional Responsibility:** Operates aerial and other earth observing sensors, such as digital imaging systems, topographic and bathymetric LiDAR systems, analog camera systems, and other technologies (e.g., thermal, oblique, hyperspectral, mobile, etc.). Works with aircraft pilots to safely and efficiently complete each mission. Sets-up Global Navigation Satellite System (GNSS) base stations as needed. Ensures data coverage and quality. Reports daily mission activity and project status. Assists with sensor installation and removal from aircraft.

**Minimum Education and Experience:** Associate degree or equivalent years of experience.

## Survey Technician

**Minimum/General Experience:** Must have at least 1 year of remote sensing or geomatics experience.

**Functional Responsibility:** Operates Global Navigation Satellite System (GNSS) and conventional survey equipment required to perform earth observation/aerial data acquisition control surveys, as directed by the Party Chief. Utilizes static and real-time or post-processed kinematic GNSS methodologies. Transfers and analyzes data post-collection, including completion of required field logs. Maintains survey equipment and instrumentation. Temporarily directs survey crews during the absence of the Party Chief.

**Minimum Education and Experience:** Associate degree or equivalent years of experience.

### 3.0 QUANTUM SPATIAL SUBSTITUTION POLICY

#### Substitution Policy

Quantum Spatial reserves the right to make the following substitutions in the education and/or experience requirements of all labor categories:

- One year of relevant experience is the equivalent of one year of college education.
- One year of college education is the equivalent of one year of relevant experience.
- Certification related to the field is equivalent to one year of experience/education.



**4.0 QUANTUM SPATIAL IT LABOR RATES  
BASE PERIOD YEARS 1-5**

Labor Category Rates are valid for all sites and include the Industrial Funding Fee (IFF) of 0.75%.

SIN	Labor Category	UOI	11/6/17 - 11/5/18	11/6/18 - 11/5/19	11/6/19 - 11/5/20	11/6/20 - 11/5/21	11/6/21 - 11/5/22
541370GEO 54151S	Analyst I	Hour	\$82.48	\$84.54	\$86.65	\$88.82	\$91.04
541370GEO 54151S	Analyst II	Hour	\$104.27	\$106.88	\$109.55	\$112.29	\$115.10
541370GEO 54151S	Analyst III	Hour	\$107.29	\$109.98	\$112.73	\$115.54	\$118.43
541370GEO 54151S	Application Developer - Jr.	Hour	\$114.41	\$117.27	\$120.20	\$123.20	\$126.29
541370GEO 54151S	Application Developer - Sr.	Hour	\$132.43	\$135.74	\$139.14	\$142.62	\$146.18
541370GEO 54151S	Business Analyst	Hour	\$137.22	\$140.65	\$144.17	\$147.77	\$151.46
541370GEO 54151S	Computer Programmer	Hour	\$132.22	\$135.53	\$138.92	\$142.39	\$145.95
541370GEO 54151S	Computer Programmer - Sr.	Hour	\$161.21	\$165.24	\$169.37	\$173.60	\$177.94
541370GEO 54151S	Database Developer - Jr.	Hour	\$81.31	\$83.34	\$85.43	\$87.56	\$89.75
541370GEO 54151S	Database Developer - Sr.	Hour	\$161.08	\$165.10	\$169.23	\$173.46	\$177.80
541370GEO 54151S	Domain Expert	Hour	\$186.37	\$191.03	\$195.81	\$200.70	\$205.72
541370GEO 54151S	Program Manager	Hour	\$171.61	\$175.90	\$180.29	\$184.80	\$189.42
541370GEO 54151S	Project Manager	Hour	\$123.76	\$126.86	\$130.03	\$133.28	\$136.61
541370GEO 54151S	Senior Project Manager	Hour	\$169.25	\$173.48	\$177.82	\$182.26	\$186.82
541370GEO	Sensor Operator	Hour	\$66.57	\$68.23	\$69.94	\$71.69	\$73.48
541370GEO 54151S	Solutions Architect	Hour	\$164.57	\$168.69	\$172.91	\$177.23	\$181.66
541370GEO	Survey Supervisor	Hour	\$91.84	\$94.14	\$96.49	\$98.90	\$101.37



SIN	Labor Category	UOI	11/6/17 - 11/5/18	11/6/18 - 11/5/19	11/6/19 - 11/5/20	11/6/20 - 11/5/21	11/6/21 - 11/5/22
541370GEO	Survey Technician	Hour	\$63.23	\$64.82	\$66.44	\$68.10	\$69.80
541370GEO 54151S	Systems Engineer	Hour	\$161.70	\$165.75	\$169.89	\$174.14	\$178.49
541370GEO	Technical Architect	Hour	\$209.11	\$214.34	\$219.69	\$225.19	\$230.82
541370GEO 54151S	Technical Specialist	Hour	\$123.24	\$126.33	\$129.48	\$132.72	\$136.04
541370GEO 54151S	Technician I	Hour	\$57.54	\$58.98	\$60.45	\$61.97	\$63.52
541370GEO 54151S	Technician II	Hour	\$77.28	\$79.21	\$81.19	\$83.22	\$85.30
541370GEO 54151S	Technician III	Hour	\$97.58	\$100.02	\$102.52	\$105.08	\$107.71



## 5.0 QUANTUM SPATIAL PRODUCT OFFERINGS SIN 541370GEO

### Airborne LiDAR

LiDAR mapping is the process of scanning surface features of the Earth with laser pulses to create 3-dimensional models of the spatial environment. Quantum Spatial is a recognized leader in the collection of high-resolution LiDAR to support the virtually limitless potential for advanced analysis and applications. We develop engineering grade accuracy and unparalleled resolution utilizing a portfolio of platforms and sensors including: airborne topographic & bathymetric LiDAR from fixed-wing or rotary aircraft as well as ground-based LiDAR survey utilizing both mobile and static systems. Data can be recorded in the near-infrared (terrestrial) or in the green (bathymetric) wave bands.

All data set provided are USGS 3DEP compliant, specifications can be found at <https://pubs.er.usgs.gov/publication/tm11B4> and conform to Lidar base specifications version 1.3

### Product Specification Options

- USGS QL2 LiDAR (2 ppsm)
- USGS QL1 LiDAR (8 ppsm)
- USGS QL0 LiDAR (16 ppsm)
- All data area hydro flattened and provided with normalized intensities.
- All data will have an independent accuracy assessment using vegetated and non-vegetated points.
- LiDAR data is provided in \*.las files and consists of point with x, y and z dimensions.
- Data is typically delivered within 60 days of acquisition.
- Deliverables include all standard USGS 3DEP Deliverables
  - 1) classified .las (only standard classes are included)
  - 2) hydro flattened raster BE DEM in img or geotiff
  - 3) intensity imagery in geotiff
  - 4) hydro breaklines in gdb
  - 5) project and product level metadata
  - 6) Project Report including FOCUS accuracy assessment

### Pricing Details

#### Pricing by Square Kilometers

Minimum area for schedule pricing is 100 square kilometers, areas < 100 square kilometers are not available through this contract.

#### Pricing by Complexity

- Pricing for simple, intermediate and complex
- Definitions of complexity
  - Simple:
    - Terrain - flat area
    - Congestion - away from major airports
    - Elevation – < 2,000 ft asl
    - Topographic ruggedness – elevation changes < 1,000 ft,
    - AOI shape – non-corridor, < 3 polygons, rectangular (county or state boundaries)
  - Intermediate:



- Terrain - undulating area
- Congestion - some major airports
- Elevation – 2,000 – 4,000 ft asl
- Topographic ruggedness – elevation changes < 2,000 ft
- AOI shape – non-corridor, < 6 polygons, mildly irregular (watersheds).
- Complex:
  - Terrain - mountainous area
  - Congestion – adjacent to major urban centers and airports
  - Elevation – >4,000 ft
  - Topographic ruggedness – elevation changes < 4,000 ft
  - AOI shape – non-corridor, < 20 polygons, irregular (project areas).

### Ground Control Options

- Ground Control Price in addition to those required for 3DEP compliance per point – Base price \$250 per point
- Discounts can be applied for easier locations and higher number of points
- 3DEP NVA/VVA verification included in base LiDAR price

### QL2 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-250	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	100 -250	per sq km	\$139.07
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	250- 499	per sq km	\$113.40
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	500 - 999	per sq km	\$96.28
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-2499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	1000 - 2499	per sq km	\$85.58
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-4999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	2500 - 4999	per sq km	\$81.31
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-15000	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	5000 - 15000	per sq km	\$81.31
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL1-15001	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	1	> 15000	per sq km	\$81.31
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-250	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	100-250	per sq km	\$166.89





### QL2 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	250-499	per sq km	\$98.42
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	500-999	per sq km	\$92.00
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-2499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	1000 - 2499	per sq km	\$85.58
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-4999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	2500 - 4999	per sq km	\$83.45
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-15000	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	5000 - 15000	per sq km	\$83.45
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL2-15001	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	2	> 15000	per sq km	\$83.45
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-250	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	100-250	per sq km	\$200.27
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	250-499	per sq km	\$117.68
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	500-999	per sq km	\$111.26
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-2499	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	1000 - 2499	per sq km	\$106.98
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-4999	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	2500 - 4999	per sq km	\$102.70
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-15000	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	5000 - 15000	per sq km	\$98.42
Quantum Demeter Series - QL2 LiDAR	DEME-QL2-CL3-15001	USGS 3DEP-Compliant QL2 Near-Infrared Topographic LiDAR, 2 ppsm	3	> 15000	per sq km	\$98.42



### QL1 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-250	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	100 -250	per sq km	\$235.36
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	250- 499	per sq km	\$192.56
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	500 - 999	per sq km	\$171.16
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-2499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	1000 - 2499	per sq km	\$162.61
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-4999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	2500 - 4999	per sq km	\$158.33
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-15000	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	5000 - 15000	per sq km	\$154.06
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL1-15001	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	1	> 15000	per sq km	\$149.77
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-250	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	100 -250	per sq km	\$256.76
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	250- 499	per sq km	\$196.85
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	500 - 999	per sq km	\$184.01
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-2499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	1000 - 2499	per sq km	\$171.16
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-4999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	2500 - 4999	per sq km	\$166.89
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-15000	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	5000 - 15000	per sq km	\$162.61
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL2-15001	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	2	> 15000	per sq km	\$158.33



### QL1 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-250	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	100 -250	per sq km	\$278.15
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	250- 499	per sq km	\$235.36
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	500 - 999	per sq km	\$222.52
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-2499	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	1000 - 2499	per sq km	\$213.96
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-4999	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	2500 - 4999	per sq km	\$205.40
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-15000	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	5000 - 15000	per sq km	\$196.85
Quantum Demeter Series - QL1 LiDAR	DEME-QL1-CL3-15001	USGS 3DEP-Compliant QL1 Near-Infrared Topographic LiDAR, 8 ppsm	3	> 15000	per sq km	\$192.56

### QL0 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-250	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	100 -250	per sq km	\$282.43
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	250- 499	per sq km	\$231.07
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	500 - 999	per sq km	\$205.40
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-2499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	1000 - 2499	per sq km	\$195.13
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-4999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	2500 - 4999	per sq km	\$189.99



### QL0 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-15000	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	1	5000 - 15000	per sq km	\$184.87
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL1-15001	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	> 15000	per sq km	\$179.73
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-250	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	100 -250	per sq km	\$308.10
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	250- 499	per sq km	\$236.21
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	500 - 999	per sq km	\$220.81
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-2499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	1000 - 2499	per sq km	\$205.40
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-4999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	2500 - 4999	per sq km	\$200.27
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-15000	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	5000 - 15000	per sq km	\$195.13
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL2-15001	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	2	> 15000	per sq km	\$189.99
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-250	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	100 -250	per sq km	\$333.78
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	250- 499	per sq km	\$282.43
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	500 - 999	per sq km	\$267.02
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-2499	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	1000 - 2499	per sq km	\$256.76
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-4999	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	2500 - 4999	per sq km	\$246.48



## QL0 LiDAR Data Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-15000	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	5000 - 15000	per sq km	\$236.21
Quantum Demeter Series - QL0 LiDAR	DEME-QL0-CL3-15001	USGS 3DEP-Compliant QL0 Near-Infrared Topographic LiDAR, 16 ppsm	3	> 15000	per sq km	\$231.07

## Multispectral Imagery

Multi-Spectral Electro-Optical (EO) Imagery is sensor data from the wavelength range of the electromagnetic spectrum in the visible and near infrared wavelengths. Airborne multispectral data provides insights for precision detection and analysis on vegetation, mineralogy, soil moisture, and other environmental interests. Our work includes fusion of LiDAR data or orthoimagery for real-world 3D model and analytics.

- Imagery containing four spectral bands
- Wavelength
  - Band 1 435–495 nm
  - Band 2: 525–585 nm
  - Band 3 619–651 nm
  - Band 4 808-882 nm
- Delivered as an uncompressed \*.tif format and/or compressed Sid format
- Geo-rectified to ASPRS Class 1 requirements
- Mosaicked and color balanced
- < 5% cloud cover
- Quality Control Report

## Product Specification Options

- 7.5 cm gsd
- 15 cm gsd
- 30 cm gsd
- 60 cm gsd
- Regular delivery schedule: imagery is delivered within 60 days of acquisition.

## Pricing Details

### Pricing by square kilometers

Minimum area for schedule pricing is 100 square kilometers. Areas < 100 square kilometers are not available through this contract.

### Pricing by Complexity

- Pricing for simple, intermediate and complex



- Definitions of complexity
  - Simple:
    - Terrain - flat area
    - Congestion - away from major airports
    - Elevation – < 2,000 ft asl
    - Topographic ruggedness – elevation changes < 1,000 ft,
    - AOI shape – non-corridor, < 3 polygons, rectangular (county or state boundaries)
  - Intermediate:
    - Terrain - undulating area
    - Congestion - some major airports
    - Elevation – 2,000 – 4,000 ft asl
    - Topographic ruggedness – elevation changes < 2,000 ft
    - AOI shape – non-corridor, < 6 polygons, mildly irregular (watersheds)
  - Complex:
    - Terrain - mountainous area
    - Congestion – adjacent to major urban centers and airports
    - Elevation – >4,000 ft asl
    - Topographic ruggedness – elevation changes < 4,000 ft
    - AOI shape – non-corridor, < 20 polygons, irregular (project areas)

### Ground Control Options

- Additional Ground Control Price per point – Base price \$250 per point
- Discounts can be applied for easier locations and higher number of points

### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-250	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	100-250	per sq km	\$545.76
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	250- 499	per sq km	\$414.96
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	500 - 999	per sq km	\$233.42
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-2499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	1000 - 2499	per sq km	\$186.73



### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-4999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	2500 - 4999	per sq km	\$145.24
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL1-5000	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	> 5000	per sq km	\$124.49
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-250	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	100-250	per sq km	\$654.91
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	250- 499	per sq km	\$274.91
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	500 - 999	per sq km	\$238.60
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-2499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	1000 - 2499	per sq km	\$191.92
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-4999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	2500 - 4999	per sq km	\$150.43
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL2-5000	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	> 5000	per sq km	\$129.68
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-250	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	100-250	per sq km	\$785.89
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	250- 499	per sq km	\$280.10



### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	500 - 999	per sq km	\$238.60
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-2499	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	1000 - 2499	per sq km	\$197.11
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-4999	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	2500 - 4999	per sq km	\$155.62
Quantum Hermes Series - 7.5 cm GSD 4-Band Imagery	HERM-7.5-CL3-5000	7.5cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	> 5000	per sq km	\$134.86
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-250	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	100-250	per sq km	\$167.93
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	250- 499	per sq km	\$90.78
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	500 - 999	per sq km	\$82.99
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-2499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	1000 - 2499	per sq km	\$64.85
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-4999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	2500 - 4999	per sq km	\$51.88
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL1-5000	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	> 5000	per sq km	\$41.50
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-250	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	100-250	per sq km	\$201.51





### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	250- 499	per sq km	\$93.37
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	500 - 999	per sq km	\$85.59
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-2499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	1000 - 2499	per sq km	\$67.44
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-4999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	2500 - 4999	per sq km	\$54.47
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL2-5000	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	> 5000	per sq km	\$44.09
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-250	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	100-250	per sq km	\$241.81
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	250- 499	per sq km	\$95.96
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	500 - 999	per sq km	\$88.18
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-2499	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	1000 - 2499	per sq km	\$70.03
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-4999	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	2500 - 4999	per sq km	\$56.02
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-5000	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	> 5000	per sq km	\$45.39



### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 15 cm GSD 4-Band Imagery	HERM-15-CL3-5000	15cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	> 5000	per sq km	\$45.39
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-250	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	100-250	per sq km	\$125.94
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	250- 499	per sq km	\$37.35
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	500 - 999	per sq km	\$31.12
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-2499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	1000 - 2499	per sq km	\$24.91
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-4999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	2500 - 4999	per sq km	\$21.79
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL1-5000	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	> 5000	per sq km	\$19.72
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-250	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	100-250	per sq km	\$151.13
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	250- 499	per sq km	\$39.43
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	500 - 999	per sq km	\$33.20
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-2499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	1000 - 2499	per sq km	\$26.97



### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-4999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	2500 - 4999	per sq km	\$23.87
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL2-5000	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	> 5000	per sq km	\$21.27
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-250	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	100-250	per sq km	\$181.36
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	250- 499	per sq km	\$41.50
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	500 - 999	per sq km	\$35.27
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-2499	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	1000 - 2499	per sq km	\$29.05
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-4999	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	2500 - 4999	per sq km	\$25.94
Quantum Hermes Series - 30 cm GSD 4-Band Imagery	HERM-30-CL3-5000	30cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	> 5000	per sq km	\$22.83
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL1-499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	250- 499	per sq km	\$11.44
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL1-999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	500 - 999	per sq km	\$9.72
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL1-2499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	1000 - 2499	per sq km	\$8.00



### Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL1-4999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	2500 - 4999	per sq km	\$7.14
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL1-5000	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	1	> 5000	per sq km	\$6.29
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL2-499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	250- 499	per sq km	\$12.47
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL2-999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	500 - 999	per sq km	\$10.60
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL2-2499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	1000 - 2499	per sq km	\$8.73
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL2-4999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	2500 - 4999	per sq km	\$7.80
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL2-5000	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	2	> 5000	per sq km	\$6.86
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL3-499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	250- 499	per sq km	\$17.45
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL3-999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	500 - 999	per sq km	\$14.83
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL3-2499	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	1000 - 2499	per sq km	\$12.21
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL3-4999	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	2500 - 4999	per sq km	\$10.91



## Multispectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Hermes Series - 60 cm GSD 4-Band Imagery	HERM-60-CL3-5000	60cm GSD Color-Balanced Mosaic, ASPRS Class 1 Georectification, TIF or SID format	3	> 5000	per sq km	\$9.60

## Hyperspectral Imagery

Hyperspectral imagery consists of many narrow contiguous spectral bands collected across the visible to near infrared portion of the electromagnetic spectrum. Hyperspectral imagery can look at the unique spectral signatures of objects at a landscape scale, providing utility in a variety of fields such as natural resource management, agriculture, mineralogy and energy. Our work includes fusion of LiDAR data or orthoimagery for real-world 3D model and analytics.

### Product Specifications

- Imagery containing up to 335 spectral bands
  - Full VNIR Cube - Up to 335 bands from 400 - 1000 nm
  - Selected Wavelength(s) 400 – 1000 nm based on options
- Delivered as an uncompressed GeoTiff (\*.tif) or ENVI (\*.hdr) format.
- Ortho-rectified to ± 3 pixels accuracy GSD
- Optional LiDAR based DEM for ortho-rectification
- Other options
  - At-sensor radiance or ground reflectance
  - Mosaicked Image Cube or Flightlines
  - 50 cm or 1 m Standard Spatial Resolution
- Quality Control Report

### Pricing Details

- Minimum area for schedule pricing is 10 square miles. Areas < 10 square miles are not available through this contract.
- Pricing is for simple, intermediate and complex areas.
- Definitions of complexity level (CL)
  - Simple (1):
    - Terrain - flat area
    - Congestion - away from major airports
    - Elevation – < 2,000 ft asl
    - Topographic ruggedness – elevation changes < 1,000 ft,
    - AOI shape – non-corridor, < 3 polygons, rectangular (county or state boundaries)
    - Regional Weather Variability: < 10% cloudy days during summer
  - Intermediate (2):
    - Terrain - undulating area



- Congestion - some major airports
- Elevation – 2,000 – 4,000 ft asl
- Topographic ruggedness – elevation changes < 2,000 ft
- AOI shape – non-corridor, < 6 polygons, mildly irregular (watersheds).
- Regional Weather Variability: < 30% cloudy days during summer
- Complex (3):
  - Terrain - mountainous area
  - Congestion – adjacent to major urban centers and airports
  - Elevation – >4,000 ft
  - Topographic ruggedness – elevation changes < 4,000 ft
  - AOI shape – non-corridor, < 20 polygons, irregular (project areas).
  - Regional Weather Variability: > 30% cloudy days during summer
- Ground control options include:
  - Additional Ground Control Price per point – Base price \$250 per point
  - Discounts can be applied for easier locations and higher number of points

### Hyperspectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA PRICE
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-50	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	10-50	per sq km	\$1,167.06
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-100	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	50 - 100	per sq km	\$1,041.15
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-200	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	100 - 200	per sq km	\$722.09
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-500	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	200 - 500	per sq km	\$503.78
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-1000	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	500 - 1000	per sq km	\$386.24



### Hyperspectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL1-1001	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	> 1000	per sq km	\$335.86
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-50	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	10-50	per sq km	\$1,167.06
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-100	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	50 - 100	per sq km	\$1,175.49
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-200	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	100 - 200	per sq km	\$822.84
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-500	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	200 - 500	per sq km	\$587.75
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-1000	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	500 - 1000	per sq km	\$461.80
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL2-1001	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	> 1000	per sq km	\$377.83
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-50	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	50 - 100	per sq km	\$1,167.06



### Hyperspectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-100	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	50 - 100	per sq km	\$1,326.62
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-200	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	100 - 200	per sq km	\$931.99
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-500	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	200 - 500	per sq km	\$671.71
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-1000	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	500 - 1000	per sq km	\$537.37
Quantum Apollo Series - 50 cm GSD VNIR Hyperspectral Imagery	APOL-50-CL3-1001	50cm, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	> 1000	per sq km	\$453.40
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-50	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	50 - 100	per sq km	\$1,167.06
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-100	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	50 - 100	per sq km	\$982.37
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-200	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	100 - 200	per sq km	\$671.71





### Hyperspectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-500	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	200 - 500	per sq km	\$377.83
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-1000	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	500 - 1000	per sq km	\$302.27
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL1-1001	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	1	> 1000	per sq km	\$243.50
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-50	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	10-50	per sq km	\$1,167.06
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-100	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	50 - 100	per sq km	\$1,116.72
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-200	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	100 - 200	per sq km	\$772.46
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-500	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	200 - 500	per sq km	\$453.40
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-1000	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	500 - 1000	per sq km	\$344.25



### Hyperspectral Imagery Collection

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL2-1001	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	2	> 1000	per sq km	\$268.69
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-50	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	10-50	per sq km	\$1,167.06
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-100	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	50 - 100	per sq km	\$1,259.45
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-200	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	100 - 200	per sq km	\$881.61
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-500	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	200 - 500	per sq km	\$520.57
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-1000	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	500 - 1000	per sq km	\$403.02
Quantum Apollo Series - 1 m GSD VNIR Hyperspectral Imagery	APOL-1-CL3-1001	1 m, Orthorectified +/- 3 px GeoTIFF or ENVI format, select wavelengths 400-1000nm	3	> 1000	per sq km	\$319.06



## DoD Geospatial Products

Quantum Spatial has more than two decades of experience providing timely, actionable geospatial information to the U.S. defense and intelligence community. We've completed task orders in every region of the world and for all branches of the U.S. Armed Forces, supporting missions that include homeland defense, military and intelligence operations, and humanitarian assistance. Quantum Spatial develops and provides a series of standardized geospatial products that are tailored to project specifications.

### Product Specifications

- Urban Feature Data
- The geospatial dataset entails mapping certain terrain and cultural features which have an impact on the urban setting, such as forested areas, ridge lines, drainage features, power lines, various key buildings (as determined from ancillary source), transportation network and bridges. Building areas of similar form and function are grouped as homogeneous polygons called Built-up Terrain Zones (BTZ's). Additional information is provided for each BTZ to give an indication of the function (e.g. residential) and ease of mobility in the polygonal area (e.g. detached buildings with open space are indicative of favorable mobility between structures by mounted and dismounted infantry). The Digitizing Field Guide, Standard Operating Procedures, and Specifications are used to develop this standardized dataset.
  - Source to be provided by client.
  - Size in square kilometers
  - Complexity Levels 1 – 5 - Complexity level definitions defined by QSI.
- CL-1 - Sparsely populated, little to no forested areas, minimal hydrography network, minimal vertical obstruction
- CL-2 - Some moderate population and/or industrial/military activity. Light to moderate forested areas, hydrography network and number of vertical obstructions.
- CL-3 - Large areas of moderate population, moderate to heavy industrial/military activity, moderate hydrography network (rivers, ditches, reservoirs), moderate number of vertical obstructions, moderate to complex powerline network.
- CL-4 - Large areas of dense population, complex transportation network, several airfields or military activity, heavy industrial activity, complex hydrography network and/or rice, large number of vertical obstructions, complex powerline network.
- CL-5 - Major metropolitan city, densely populated, heavy military and/or industrial activity, large number of vertical obstructions, complex powerline network, complex transportation network (rails, bridges, tunnels, highways, interchanges).
- HRTe3
  - HRTe3 is defined as a Digital Elevation Model (DEM) built to:
    - Post Spacing: 0.4 arc/sec (at latitudes from -50 to +50 degrees)
    - Format: signed 16 bit GeoTIFF (whole integer, elevation in meters) with null value set to -32767
    - Projection: Geographic (decimal degrees)
    - Datum: WGS-84 Horizontal and EGM-96 (geoid) Vertical
    - Unit: 30 minute x 30 minute (4501 rows x 4501 columns)
  - Surface: Bare Earth or Reflective
  - Has complexity levels 1 – 6



- Complexity is defined under GDS well, under JANUS every ¼ cell of earth is classified but can be off by 1 or 2 complexity systems. NGA is issuing Task orders without negotiating assessment of complexity levels.
      - Use NGA complexity level document
    - ¼ degree cell of earth (unit)
    - Prices do not include source harvesting or auto-correlation of initial DEM surface.
  - HRTe4
    - HRTe4 is defined as a Digital Elevation Model (DEM) built to:
      - Post Spacing: 3 meter nominal
      - Format: 32 bit GeoTIFF (floating point, elevation in meters)
      - Projection: UTM with appropriate zone definition or geographic (NGA defined)
      - Datum: WGS-84 Horizontal and EGM-96 (geoid) Vertical
      - Unit: variable from 1 km<sup>2</sup> to 100 km<sup>2</sup>
    - Surface: bare earth or reflective surface
    - No complexity level
    - 1 km<sup>2</sup> unit
  - Complexity for HRTE 3 and 4 is defined by DoD.
  - Price assumes client will provide source data.

### DoD Geospatial Products

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL1-500	Terrestrial and Cultural Features Mapping	1	<500	per sq km	\$67.85
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL1-1000	Terrestrial and Cultural Features Mapping	1	500 - 1000	per sq km	\$38.87
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL1-1500	Terrestrial and Cultural Features Mapping	1	1000 - 1500	per sq km	\$32.76
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL1-3000	Terrestrial and Cultural Features Mapping	1	1500 - 3000	per sq km	\$30.58
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL2-500	Terrestrial and Cultural Features Mapping	2	<500	per sq km	\$104.72
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL2-1000	Terrestrial and Cultural Features Mapping	2	500 - 1000	per sq km	\$60.77
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL2-1500	Terrestrial and Cultural Features Mapping	2	1000 - 1500	per sq km	\$51.14



### DoD Geospatial Products

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL2-3000	Terrestrial and Cultural Features Mapping	2	1500 - 3000	per sq km	\$47.62
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL3-500	Terrestrial and Cultural Features Mapping	3	<500	per sq km	\$159.41
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL3-1000	Terrestrial and Cultural Features Mapping	3	500 - 1000	per sq km	\$120.34
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL3-1500	Terrestrial and Cultural Features Mapping	3	1000 - 1500	per sq km	\$113.45
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL3-3000	Terrestrial and Cultural Features Mapping	3	1500 - 3000	per sq km	\$109.12
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL4-500	Terrestrial and Cultural Features Mapping	4	<500	per sq km	\$239.88
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL4-1000	Terrestrial and Cultural Features Mapping	4	500 - 1000	per sq km	\$180.27
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL4-1500	Terrestrial and Cultural Features Mapping	4	1000 - 1500	per sq km	\$165.03
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL4-3000	Terrestrial and Cultural Features Mapping	4	1500 - 3000	per sq km	\$159.54
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL5-500	Terrestrial and Cultural Features Mapping	5	<500	per sq km	\$361.79
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL5-1000	Terrestrial and Cultural Features Mapping	5	500 - 1000	per sq km	\$270.43
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL5-1500	Terrestrial and Cultural Features Mapping	5	1000 - 1500	per sq km	\$215.78
Quantum Ares Series - Urban Feature Data	ARES-UFD-CL5-3000	Terrestrial and Cultural Features Mapping	5	1500 - 3000	per sq km	\$214.12



### DoD Geospatial Products

Product Name	Part Number	Product Description	Complexity Level	AOI Size (ft cell)	UOI	GSA Price
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL1	Digital Elevation Model (DEM)	1	30' x 30' cell	per 30 x 30 ft cell	\$17,424.73
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL2	Digital Elevation Model (DEM)	2	30' x 30' cell	per 30 x 30 ft cell	\$39,792.07
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL3	Digital Elevation Model (DEM)	3	30' x 30' cell	per 30 x 30 ft cell	\$60,487.81
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL4	Digital Elevation Model (DEM)	4	30' x 30' cell	per 30 x 30 ft cell	\$87,391.19
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL5	Digital Elevation Model (DEM)	5	30' x 30' cell	per 30 x 30 ft cell	\$128,568.43
Quantum Ares Series - HRTE3 - Bare Earth	ARES-3BE-CL6	Digital Elevation Model (DEM)	6	30' x 30' cell	per 30 x 30 ft cell	\$164,755.99
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL1	Digital Elevation Model (DEM)	1	30' x 30' cell	per 30 x 30 ft cell	\$13,297.52
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL2	Digital Elevation Model (DEM)	2	30' x 30' cell	per 30 x 30 ft cell	\$20,737.74
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL3	Digital Elevation Model (DEM)	3	30' x 30' cell	per 30 x 30 ft cell	\$36,721.24
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL4	Digital Elevation Model (DEM)	4	30' x 30' cell	per 30 x 30 ft cell	\$51,489.35
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL5	Digital Elevation Model (DEM)	5	30' x 30' cell	per 30 x 30 ft cell	\$72,393.15
Quantum Ares Series - HRTE3 - Reflective Surface	ARES-3RS-CL6	Digital Elevation Model (DEM)	6	30' x 30' cell	per 30 x 30 ft cell	\$99,923.29



## DoD Geospatial Products

Product Name	Part Number	Product Description	Complexity Level	AOI Size (km <sup>2</sup> )	UOI	GSA Price
Quantum Ares Series - HRTE4 - Bare Earth	ARES-4BE-CL1	Digital Elevation Model (DEM)	1	1 - 100	per sq km	\$1,800.60
Quantum Ares Series - HRTE4 - Bare Earth	ARES-4BE-CL2	Digital Elevation Model (DEM)	2	> 101	per sq km	\$1,701.06

### Archival Imagery

Historical Image Scanning is the process used to transfer hard copy images, metadata and flight or index maps into a computer as digital images that can be positives or negatives. These images can then be georeferenced and orthorectified. Digital and printed images are generated for applications ranging from real estate and legal services, to mining and environmental. In addition to the products and services listed, Quantum Spatial can extract features such as buildings, vegetation, contours and drainage patterns from photo coverage of any year. Additionally, Quantum Spatial owns a vast and rich historical archive of oblique and vertical aerial imagery, which was originally collected using film.

### Product Specifications

Historical aerial imagery is frequently recorded in the form of 9”x 9” black and white (BW), color or color infrared (CIR) exposures stored on rolls of film in canisters. A large-format photogrammetric scanner is required to convert these analog negatives or positives to digital images. Scanners can produce high quality image scans at 12 microns. Other resolutions are possible, though require a custom quote. Film negatives first undergo a visual inspection to check for damage and dust removal. Digital images are produced in TIFF, Sid or JPG format at 8-bits per channel. A pre-determined standardized file naming convention is assigned to image files as they are created. Compressed image files can be selected from sid, jpg or ecw. The compression ratio and resulting image quality are considered, along with potential use cases, to recommend a method and output images in the desired compressed format.

Product:

- *Scan of 9 x 9 positives or negatives at 12 microns in tiff or compressed format*

### Product Specification Options

After film negatives are scanned into a digital format, certain data management techniques can help increase accessibility, usefulness and intuitiveness of the data set. Add-on options for historical image scanning are presented in this section. Requirement for these services are that images already exist in digital form.

- **GeoReferenced Flightplan Index:** Flight maps are invaluable for linking historical image frames to their corresponding geographical location. Where available, it is recommended that these flight/index maps be scanned and georeferenced to aid the process of geolocating individual images.
  - Georeferenced flight map in TFW or JPG 2000



- **Vectorized Geospatial Index:** Aerial photo scans are more valuable with a corresponding index that can be referenced in GIS software. Photo centers are digitized as point vectors and flightlines are digitized as polyline vectors. All vectors are fully attributed with acquisition information and linked in a relational geodatabase. This also allows for the images to be orientated with flight index maps and proper orientation of the image frame. Metadata for scanned image files and/or a geospatial index can be provided in XML format, compliant with FGDC standards and compatible with ArcGIS software. It can also be provided in the form of a data report or any other requested format.
  - Photo index as ArcGIS geodatabase
- **GeoLocated Imagery (GeoTIFF):** Scanned historical image frames can be converted to geolocated images in TIFF with TFW (GeoTIFF) format. The coordinates of each image corner are calculated from the photo center point, photography scale and scanned image size. The images are stretched over the calculated extent and oriented to the flightlines. The resulting product is a set of geospatially aware images that are properly located when loaded in GIS software.
  - Images in Geotiff format
- **Composite Orthorectified Mosaic:** Scanned historical images can be orthorectified using automated image matching technique to correlate features on the ground between overlapping frames. Once the images are aligned and matched together, control points are created to increase the precision of the autocorrelated images and to tie the imagery to its correct geographic position. A 3D point cloud derived from the imagery is then used to produce the final orthoimagery mosaic layer.
  - Mosaicked image in Geotiff format

### Archival Imagery

Product Name	Part Number	Product Description	Frame #	UOI	GSA Price
Quantum Hera Series - Scan 9x9 - 12 micron	HERA-SC9-1	Archival Aerial Film Scanning	< 250	per frame	\$15.15
Quantum Hera Series - Scan 9x9 - 12 micron	HERA-SC9-2	Archival Aerial Film Scanning	251 - 2500	per frame	\$14.68
Quantum Hera Series - Scan 9x9 - 12 micron	HERA-SC9-3	Archival Aerial Film Scanning	> 2500	per frame	\$13.63
Quantum Hera Series - Georeferenced Flight Maps	HERA-GFM-1	Indexed Flight Planning Maps, Georeferenced, TFW or JPG 2000 format – per map	<10	Per sheet	\$165.09
Quantum Hera Series - Georeferenced Flight Maps	HERA-GFM-2	Indexed Flight Planning Maps, Georeferenced, TFW or JPG 2000 format – per map	>10	Per sheet	\$153.30





### Archival Imagery

Product Name	Part Number	Product Description	Frame #	UOI	GSA Price
Quantum Hera Series - Geospatial Index	HERA-GIX-1	FGDC-Compliant, Vector-Attributed Scanned Aerial Imagery Index, ArcGIS gdb format – per map	<10	Per sheet	\$259.92
Quantum Hera Series - Geospatial Index	HERA-GIX-2	FGDC-Compliant, Vector-Attributed Scanned Aerial Imagery Index, ArcGIS gdb format – per map	>10	Per sheet	\$241.36
Quantum Hera Series - Orthorectify Mosaic	HERA-OM-1	Mosaiced Scanned Aerial Imagery, GeoTIFF format	<100	per frame	\$35.98
Quantum Hera Series - Orthorectify Mosaic	HERA-OM-2	Mosaiced Scanned Aerial Imagery, GeoTIFF format	100 - 1000	per frame	\$16.60
Quantum Hera Series - Orthorectify Mosaic	HERA-OM-3	Mosaiced Scanned Aerial Imagery, GeoTIFF format	1000 - 5000	per frame	\$9.96
Quantum Hera Series - Orthorectify Mosaic	HERA-OM-4	Mosaiced Scanned Aerial Imagery, GeoTIFF format	> 5000	per frame	\$6.65



**6.0 QUANTUM SPATIAL PRODUCT OFFERINGS  
SIN 511210 AND 54151**

SIN	MFR Name	MFR Part No	Product Name and Description	UOI	GSA Price	Quantity/Volume Discount	Warranty	COO
511210	DAT/EM Systems International	S-DT-1100	<b>Summit Evolution FEDERAL - Software:</b> 3D stereo viewing for vector collection directly into AutoCAD, MicroStation, ArcGIS and Global Mapper	Per License	\$15,717.88	2nd license = 10% 3rd license = 10% 4th license = 15% 5th license = 15% 6th license = 20% 7th license = 20% 8th license = 25% 9th license = 25% 10th license = 30% >11 licenses = TBD	Yes / 12 Months Software Support / Maintenance Included	USA
54151	DAT/EM Systems International	M-DT-1100	<b>Summit Evolution FEDERAL - Annual Technical Support:</b> Annual technical support	Per Year	\$2,310.53	2nd license = 10% 3rd license = 10% 4th license = 15% 5th license = 15% 6th license = 20% 7th license = 20% 8th license = 25% 9th license = 25% 10th license = 30% >11 licenses = TBD	N/A	USA
54151	DAT/EM Systems International	V-DT-1100	<b>Summit Evolution FEDERAL - Training:</b> Technical Training	Per Day	\$1,086.15	None	N/A	USA