

October 20, 2014

Dr. Michael Hauck
The American Society for Photogrammetry & Remote Sensing
5410 Grosvenor Lane, Suite 210
Bethesda, MD 20814-2160

Email to: mhauck@asprs.org
CC: procurement-guidelines@asprs.org

Dear Dr. Hauck,

URISA is pleased to respond to your request of April 25, 2014, to review and comment on ASPRS' draft **Guidelines for Procurement of Commercial Geospatial Mapping Products (2012)**. URISA's Policy Advisory Committee and its Board of Directors have carefully reviewed the draft guidelines. Our findings are attached. In addition, we attach the comments URISA made to a previous version of ASPRS' **Guidelines for Procurement** in 2009. Many of those comments are still relevant today.

We appreciate the opportunity to comment on the Guidelines. It demonstrates ASPRS' intention to collaborate with GIS Professionals whose work coordinates and relates closely with that of Photogrammetrists and Remote Sensing professionals. Because we share a similar intention, we hope ASPRS will appreciate the ancillary impact its current Guidelines may have, and consider making the suggested adjustments.

Yours truly,
/s/ Carl Anderson

URISA Board President, on behalf of the URISA Board of Directors
carl.anderson@vadose.org

Dear ASPRS Guideline Committee,

Thank you for the opportunity to review and comment on the revised and combined **ASPRS Guidelines for Procurement of Geospatial Mapping Products and Services** (Guidelines) March 20, 2014 draft. URISA appreciates its relationship with ASPRS over the years and is cognizant of ASPRS's many contributions to the Photogrammetry and GIS fields including comprehensive publications like the **Manual of Photogrammetry**, now in its 6th edition, **Digital Elevation Models: Techniques and Applications**, the recent **Airborne Topographic LiDAR Manual**, and **Manual of Geographic Information Systems** to name just a few. This is in addition to the many smaller topical booklets published and the **PE&RS** journal. So it is with much interest that we have reviewed the draft of the combined Guidelines.

URISA believes the current definitions of Professional Geospatial Mapping Services (PGMS) and Commercial Geospatial Mapping Products (CGMP) creates an inaccurate dichotomy to describe geospatial professional services, one that excludes the work of GIS professionals. The problem is that GIS-related professional services may be assumed to fall under the PGMS category which is neither the intent of ASPRS nor the concord of URISA.

By defining PGMS as "... those geospatial mapping services that require specialized knowledge and skill; require independent judgment; and have expectation of ethical conduct and professional expertise such that the resulting services will be consistent with the best interests of the client and public," the Guidelines would seem to be including the skill and work of GIS professionals, because these attributes apply to GIS-related professional services as well. The Guidelines further defines PGMS as, "professional photogrammetric mapping services utilize geomatics, photogrammetry, and related remote sensing technologies to produce geospatial mapping deliverables and information for which there is an expectation of reliable spatial or thematic accuracy," which is not the domain of GIS professionals. This would seem to reduce GIS Professionals' services to that of mere technicians. Given ASPRS' status in the geospatial community, and its reputation with public and private agencies, the impact of its language should be carefully considered when defining professional geospatial services.

URISA suggests that ASPRS recognize that there are other GIS-related Professional Services (GISPS) in addition to PGMS, and that both share the first set of criteria. The distinction between PGMS and GISPS should be explicitly expressed, so as not to create an incorrect expectation that the guidelines for PGMS (photogrammetry-related services) would apply to GISPS as well.

URISA respectfully suggests that ASPRS consider a definition for PGMS that incorporates the action of making original observations and using those observations to create photogrammetric products. This notion is similar to the NCEES definition of the practice of surveying.¹ URISA believes that GIS-related Professional Services (GISPS) be defined as "the storage, use, combination, analysis, and display of

¹ The Practice of Surveying is defined as "... involving **both** (1) the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth, improvements on the earth, the space above, on, or below the earth **and** (2) providing, utilizing, or developing the same into survey products" Cf. <http://cdn3.ncees.co/wp-content/uploads/2012/11/Model-Law-2013.pdf>, page 5, section B.4.

mapped data to create referential geospatial products." GIS-related geospatial products should refer back to their original source data, but the data is transformed to create user-specific geoanalytical products. GISPS professional services that do not fall within the PGMS category include the following:

1. Geospatial needs analysis and business process analysis
2. GIS application and interface design, testing, implementation
3. Cartographic data visualization
4. Geographic database design (logical and physical)
5. Spatial data modeling (database classification; construction of connective data relationships including topology; management of a consistent internal spatial reference system)
6. Geographic analysis (SQL query and spatial query; buffer and overlay recombination; density and cluster analysis; spatial interaction analysis; cartographic modeling; spatial process analysis; surface analysis)
7. Spatial data quality analysis
8. GIS architecture and system engineering, (hardware, software, network, peripheral and mobile devices and communications; web services; security architecture)
9. GIS management, system administration, and data maintenance
10. Geospatial standards and metadata creation and maintenance
11. Geocomputational algorithms, models, agents, simulations
12. Network analysis and location-allocation modeling
13. Geospatial statistics

If the ASPRS Guidelines makes a clear distinction between PGMS, GISPS, and CGMP, and explains that the guidelines are intended for PGMS, then much of the potential for conflicting overlap with GIS professionals and organizations will be averted.

URISA wants to confirm that we strongly agree that only well-qualified firms and individuals should be providing PGMS or GISPS. Further, URISA strongly believes that RFP documents should be prepared thoughtfully and comprehensively so that any firm wishing to bid clearly understands what is expected and how their bid will be evaluated. The RFP process should also include the ability for clarifications and flexibility, where appropriate.

URISA acknowledges ASPRS' position on Qualification Based Selection (QBS), however, it is with reluctance that we conclude the Guidelines fall short of your standards. Rather than being a guideline, the document more resembles an advocacy white paper to convince the reader to only use QBS when procuring PGMS services and products. In the 11 pages of Chapter 1 only one third of a page is devoted to any guidance for non-QBS procurements. URISA supports ASPRS' desire to state its case in publications, however, to do so in a publication called "guidelines" where QBS isn't portrayed as one among other methods reviewed, but the one and only method, does not serve URISA members nor the ASPRS member firms that bid on and perform these services.

URISA agrees that QBS could be used when the scope of work is poorly defined, or when it can be accomplished multiple different ways so as to make Best Value RFP evaluation methods difficult. Nevertheless, URISA believes that the Best Value procurement method best serves local governments and public agencies that comprise the bulk of URISA's members. By not taking cost into account as

one of several selection criteria (to be given explicit weighting), QBS costs public agencies more than selection with the Best Value method. By using qualifications as the overriding and only criterion, QBS builds in a bias against less experienced companies that may be offering newer, more innovative and effective technologies. For these reasons, URISA would like to see ASPRS' Guidelines give equal analysis and endorsement to Best Value.

The Best Value evaluation method became popular largely through the needs of Information Technology (IT) procurement. IT requirements are often complicated and involve hardware, software and, frequently, development. Procurement officials realized the need for flexibility in evaluating bids while still taking costs into consideration. Best Value takes a holistic view in evaluating bid responses where qualifications, project solution, responsiveness and costs are all included in the evaluation. A properly prepared Best Value RFP should include a full explanation of the process itself, the evaluation methodology including weights given to each category, a comprehensive Scope of Work, allowance for some flexibility in proposals, and cost details. Often there is a pre-bid meeting and/or contact where potential bidders can ask questions and get clarifications. Sometimes the top group of bidders are asked to further refine their bids in what is called a "Best and Final Offer." Many agencies separate cost evaluation until the end. It is this combination of factors that result in the best overall value to the procuring agency. While QBS may be more frequently employed at the Federal level, at the state and local level, which concerns the bulk of URISA's members, the Best Value selection method is the norm and will remain so.

Additionally, and importantly, because of QBS' close association with the Brooks Act (for Federal procurement) URISA is concerned that QBS would require that the work be conducted under the responsible charge of licensed engineers or surveyors (even for non-Federal contracts). This is appropriate for PGMS, but not for GISPS. The concern is that "mapping" services could be misunderstood to include any and all map-related professional services. We understand the word "mapping" in "PGMS" is intended to signify only those services that make and collect original observations and transform them into data and documents for authoritative location. We do not want all the other geospatial professional services that GIS professionals perform to be selected under the same licensing requirements.

There is little in the PGMS section that provides guidance on how to conduct a QBS procurement for PGMS. This makes it appear that the document's only purpose is the advocacy of QBS and nothing more. This limitation is especially apparent when compared to the guidance offered in the CGMP section, Chapter 2. Many URISA members are now in their second or third iteration of acquiring PGMS products, using the same or better standards and subject areas. Frequently, due to area overlap and cost savings, these projects are handled through some type of consortium with one agency in the lead. Often, the same staff have been involved in each iteration and have developed considerable knowledge in defining the requirements, which are sometimes supplemented with expert consultants. Several times in Chapter 1 it's stated that "Often, the photogrammetric mapping professional is the only professional involved in the process that fully understands the specifications, accuracies, methodologies and approach that will support project objectives and the intended use of the agreed to project deliverable." While this may hold true for the technical details involved, the overall understanding of the goals, user requirements, processes, data use is with the GIS Manager or equivalent.

URISA offers the following specific comments:

1. As stated above, the Guidelines should review all procurement methods, stating their strengths and weaknesses and the steps necessary to emphasize the strengths and minimize the weakness. The current draft, like the previous version, gives short shrift to any form of Best Value method. In fact in that whole section, the only "guidelines" for Best Value is offered on page 17:

"However, ASPRS recognizes there will be instances when an organization will choose to use a procurement method wherein price submittals influence which proposer is selected for negotiations.

"In those cases, ASPRS emphasizes the importance of implementing procurement criteria that ensure qualifications, not cost, is the primary selection factor."

This is nothing more than saying if you can't formally use QBS, then make your RFP work like QBS. Further down, your first two bullets repeat this:

- " • Qualifications should always be the primary selection factor."*
- " • Qualifications rankings should not be influenced by cost."*

URISA agrees that the qualifications and response to the scope of work are important considerations, but not without consideration of cost. Some Best Value RFP's separate the technical response evaluation from the cost proposal. Other agencies include costs in a single evaluation of the total proposal where costs are but one factor. This insures that the successful bidder is the best firm at the best price.

The third bullet URISA completely agrees with:

" • The scope of work must be well defined and developed by a professional who has extensive knowledge of the work to be performed and is qualified to ensure that the scope of work will best serve the client's interests."

The fourth bullet URISA conditionally agrees with. But this would only occur when the client has no knowledge how to proceed and isn't inclined to hire a consultant to do the analysis and then develop a Best Value RFP. In URISA's experience, this situation is becoming a rarity:

" • Projects that have a significant element of design, and wherein the service provider's professional judgment is relied upon to develop the scope of work, methodology or approach, should always use QBS and should not include cost as an initial selection criterion."

URISA is in general agreement with bullet five that a qualified professional with specific knowledge or expertise with the services being procured (either on staff or a consultant) should have a significant role:

“ ● A registered, certified or otherwise qualified professional with specific knowledge or expertise with the services being procured (either on the client's staff or hired as a consultant) should have a significant role in the review of both the technical proposal and any cost proposals in order to ensure that the work best meets the end user and public interests.”

The client's professionals, whether on staff or consulting, should be responsible for evaluating bid proposals. Procurement staff, if available, should be in a supportive role.

2. Chapter 2, Procurement of CGMP, doesn't address the situation where the dataset procured is actually only linked to the user's GIS. It is mentioned under Examples of CGMP as Hosted/Online Data but there is no guidance on its procurement and licensing.
3. Any CGMP data license should include metadata at a minimum.
4. Any CGMP data license should spell out whether the license is for a limited time or in perpetuity. Does the licensee have to remove the data if no further fees are paid whether or not the data has been updated?

URISA is unclear who the target audience is with these Guidelines. If that audience includes local governments, then it will be of little help as the continuing economic pressures make it imperative that they get the best value for their dollars. Most of these local governments have had good experience with Best Value RFP's. Many have already done at least one PGMS procurement and have the experience to do another. ASPRS's member firms are the ones who perform these services. It is in their interest that Best Value RFP's are created clearly and concisely, so that any firm responding understands the project objectives and the method of evaluating their responses. These Guidelines perform none of this.

Since the current document is very similar to the previous version in 2009, except for the combined Commercial Geospatial Mapping Products (CGMP) section, our comments offered in 2009 are largely still relevant and are attached.



January 14, 2009

The URISA Board of Directors has reviewed the draft *Guidelines for Procurement of Professional Aerial Imagery, Photogrammetry, Lidar, and Related Remote Sensor-based Geospatial Mapping Services*, as published by ASPRS, and offers the following comments organized by topic.

1. QBS Is Not the Only -- Nor Always the Best -- Alternative to Low-bid Procurement. The guidelines recommend that "Brooks Act QBS or similar methods be used for procurement of all professional geospatial mapping services" (Sec. VIII, second paragraph). The guidelines mention none of the limitations of QBS, nor do they mention other procurement source selection methods that are more widely used in the profession, nor do they offer any reason why QBS would be superior to all other methods for all professional service procurements. The URISA Board agrees that a typical low-bid process is best suited for procurement of well-defined products and is not advisable for professional services. However, the Board believes the guidelines would better serve the public by providing an unbiased evaluation of the full range of current practices.

QBS can be useful when a product or service cannot be specified clearly. However, work product specifications and quality standards are well defined for many mapping products and services, and clients have many means of access to independent expertise needed to use and interpret those specifications and standards intelligently. QBS removes cost as a significant selection criterion--but cost is and ought to be an important factor in most procurements, especially publicly-funded procurements. Finally, QBS precludes fair comparisons between different approaches and firms, even though comparisons can be essential to an informed client decision, and they foster innovation among producers.

For these reasons, best-value methods and lowest technically accepted source selection methods are more commonly used for geospatial professional services procurement. The *Federal Acquisition Regulation (FAR)*, Subpart 15.1, lists a number of best-value continuum methods for reaching a negotiated contract for mapping products. The method previously endorsed by URISA in its Quick Study Guide, *GIS Procurement and RFP Development*, involves the trade-off process, which allows consideration of price and technical specifications resulting in a procurement that balances these aspects of vendor proposals according to the nature of the end product and its intended use. Another procurement method that likely has extensive application in spatial data acquisitions is the lowest technically accepted source selection process, which sets a technical threshold above which proposals can be evaluated by price. It may be useful for the committee to review prior published procurement guidelines to learn more about existing practices.

The URISA Board strongly urges the committee to describe all of these procurement methods in the next draft of the *Guidelines*, to offer unbiased guidance on the advantages and limits of each, and to recommend none as "best" but to encourage clients to select the method that best suits the conditions and purposes of their procurements.

2.Mapping Services Are Generally Not Related to Architecture and Engineering Services. Some of the entities represented on the drafting committee have sought to classify mapping services, regardless of how they are delivered or by whom, as the licensed practice of surveying. This logic has been extended to say that the "Brooks Act" authorizing a portion of FAR Subpart 36.6 governing the procurement of architecture and engineering services applies to all mapping product procurements. The *Guidelines* continue this line of reasoning and reach the same conclusion. The URISA Board takes strong exception to this conclusion, which is in direct opposition to the stated scope of Subpart 36.6. General mapping is in no way part of the licensed practice of architecture and engineering, nor are related spatial data products that may be delivered by licensed surveyors or photogrammetrists within the scope of Subpart 36.6. In fact, s. 36.601-3(d) of FAR specifically excludes incidental services, like surveying and mapping, from procurement through the procedure defined in Subpart 36.6 when they "do not require performance by a registered or licensed architect or engineer." No state requires that mapping services of any type be provided only by licensed architects or engineers.

3.Geospatial Professionals Increasingly Create Products, Not Services. By restricting its scope to services, the draft guidelines disregard an important trend that is transforming the geospatial professions: the increasing commoditization of geospatial products, and their growing competition with professional services. As geospatial data and technology have become more ubiquitous, products have become increasingly standardized. For example, satellite imagery, road network data, and GPS devices are widely available by internet or as consumer products, along with many other geospatial products that even a few years ago required professional expertise to obtain and use. The guidelines should acknowledge this trend, to preclude the misimpression that all geospatial products are or should be provided by professionals as services.

4.Guidelines Need To Address Pre-solicitation Actions. One of the primary omissions of the *Guidelines* is what a consumer of spatial data can do to improve the quality of proposals before the solicitation is issued. Such actions as attending conferences, sending out pre-solicitation notices, issuing requests for information (RFI), and conducting pre-solicitation conferences can educate both the consumer on vendor practices and potential suppliers on what the consumer really needs. Too often, an RFP is issued without sufficient content to tell the potential vendors what is really desired, or the RFP seeks the impossible, such as a firm fixed price for an indeterminate product. As a result, vendors may be uncertain as to what they should propose and fail to respond to the solicitation. Mutual education before the solicitation is issued will go a long way toward improving the end result and can reduce the chance for project delaying protests.

5. Local Governments and Utilities Must Be Included on the Drafting Committee. It is possible that many of the shortcomings identified above are the result of inadequate representation on the drafting committee of the primary consumers of spatial data; i.e., local governments and utilities. It seems logical to include the persons who would be most likely to utilize the *Guidelines* on the committee that drafts the document. At the very least, it would facilitate discussions between suppliers and consumers regarding the needs of both parties in the procurement process.

The URISA Board again wants to thank ASPRS and the drafting committee for undertaking this important work, and for being open to input from other parties as you move forward to complete the effort.