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ALASKA'S CAPITAL CITY

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January 15, 2013

ADDENDUM #1 TO REQUEST FOR PROPOSAL #13-008

Procurement of Remotely Sensed Data

Information to bidders:

Please find attached questions and subsequent answers that were submitted prior and during the Pre Proposal Meeting on Friday January 11, 2013.

Receipt of this addendum should be acknowledged or your proposal may be considered non-responsive. Acknowledgment can be made by signing and faxing this addendum to (907) 586-4561 prior to the RFP deadline, by returning the signed addendum to the Purchasing Division prior to the RFP deadline, or by including a signed copy with submitted proposal.

Nicole A Tragis

Nicole A Tragis, Buyer

Company	Signature	Date

Juneau Procurement of Remotely Sensed Data

RFP 2013-008

Pre-Proposal Meeting Questions and Answers.

1. Section 2.4.2. Taken as a given that CBJ would desire deliverable data for all three Priority Areas, can you elaborate on the importance of each area?

Proposals should address the cost for obtaining all three priority areas. Based on proposed costs, budget, and other factors described in the RFP, the CBJ will make its selection. If no proposals are received that cover all areas of interest, then the CBJ will prioritize proposals according to those which maximize areas one, two, and three, in that order. The CBJ will use values tables 1, 2, and 3 (cost per square mile tables) to assist in this decision. Also, although the CBJ has not identified additional funding sources, should additional resources become available, the values in these tables will assist in selecting the successful RFP.

2. In section 2.4.2., it is stated that CBJ would prefer that LiDAR and imagery be captured during times of extreme low tide. Can you weight the importance of this preference versus that of the other, considerable environmental factors (leaf-off, etc.) affecting capture?

Extreme low tide conditions are preferable, but not a determining requirement. Leaf-off, and no snow below 500 feet are requirements. The CBJ anticipates the winning proposer will prioritize acquisition of coastal areas during the lowest tide conditions possible.

3. In section 2.4.2., it is stated that CBJ requires orthoimagery with a minimum of 4 bands, but desires 4-8 bands. Can CBJ elaborate as to the drivers or needs for requesting 4-8 band imagery?

The CBJ expects to use additional bands (5+) to improve identification of vegetation types for wetland determination, and improved definition of features found in intertidal and coastal areas.

4. In Section 2.4.5., it is stated that CBJ has made arrangements with USGS and USFS to conduct internal and independent QA/QC. Can you outline the anticipated QA/QC methodology and key features that USGS/USFS will be reviewing?

The CBJ, USGS, and USFS will conduct standard industry QA/QC tests on LiDAR and othoimagery. For LiDAR, tests will include verifying completeness of coverage, nominal point density, non-clustering, lack of voids, horizontal and vertical accuracies, consistency of elevations within and between acquisition flightlines, completeness and correctness of point classification, and other factors specified in the RFP. For orthoimagery, primary tests include verifying the lack of clouds and fog in the imagery, consistent radiometry across the final orthophoto, and accuracy of pixel location (horizontal accuracy).

a. Also, can CBJ specify as to when, amid the Project Management and Project Management Schedules (Section 2.7), this review is to occur?

According the proposed schedule, these tests will occur during the four weeks following delivery of the pilot area, and the eight weeks following the delivery of the final product.

5. In section 2.4.7. (and 2.4.3.), it states that all data must be available for the public domain. In many cases, this public domain requirement will eliminate the possibility of using satellite imagery from consideration as an option for this project. Can CBJ elaborate on the stringency of this requirement?

The intent of the RFP's requirement for all deliverables and derivatives to be available in the public domain is to protect the CBJ from any obligations to monitoring and maintaining any and all data license requirements. The source of funding is conditioned on public domain access to data. Proposers are encouraged and welcomed to suggest options for meeting these conditions. Proposals that do not meet these requirements will be reviewed with skepticism.

6. In Section 2.5.1. #7, it is stated that the LiDAR data must support suitable breaklines for subsequent development of contours. Can CBJ elaborate on expectations for this future effort?

Future efforts will use LiDAR data to define stream courses and watersheds. The DEM deliverable in this RFP must incorporate hydroflattening of ocean waters, and major bodies and rivers. (See question 13).

a. What contour interval(s) are anticipated (2-ft, 5-ft, 10-ft)?

In Priority Area 1, for areas of low slope (up to 20 degrees), contour intervals of 1-foot are anticipated. All other areas will potentially be contoured at 2-foot intervals.

b. As creation of any contour layer requires some breakline delineation, what level is expected? Closed hydro (lakes, ponds), network hydro (rivers, streams, tidal channels) and/or infrastructure (structures, roadways)?

Proposals are expected to include development of breaklines necessary for hydroflattening of the DEM (of ocean water, lakes, ponds, and major rivers). For this DEM deliverable, a relatively small number bridges in the acquisition area may result in the exclusion of a number of (clearly identified) points in the source LiDAR point cloud.

7. In Section 2.5.2. # 3, it is stated that archived imagery will be considered, if it meets the environmental requirements (leaf-off, no snow, etc.) and was captured after April 2011. Does the CBJ already possess any such imagery? If so, what is the coverage area?

The CBJ does not currently possess significant amounts of orthoimagery acquired after April 2011.

8. In Section 2.5.3., it is stated that 20 differentially corrected points are required for QA/QC purposes, but there is no stated minimum for Areas 2 or 3? Is there a similar expectation for these Priority Areas?

Current industry standards recommend that 20 differentially corrected control points be obtained for LiDAR acquisitions. The CBJ recognizes that it may be costly to acquire control points for the RFP's priority areas 2 and 3. Proposers are encouraged to discuss options for ensuring the horizontal and vertical accuracies of deliverables in these areas.

9. As it is not specifically stated in Section 2.5.3. #3, can CBJ confirm that the 12.5 cm vertical accuracy requirement holds true for all three Priority Areas?

Vertical accuracy requirements are intended to support 1-foot contours in Priority Area 1 (for slopes up to 20 degrees), and 2-foot contours elsewhere, including Priority Areas 2 and 3.

10. In Section 2.7, there are numerous references to a pilot area/data, but no definition or details. Can CBJ elaborate on expectations for such a pilot? Size of pilot area, imagery and/or LiDAR specifications, collection time frame, how it fits within the overall project schedule, etc.?

A pilot area of approximately 12 square miles is anticipated, primarily for QA/QC verification of LiDAR data. The anticipated area is expected to be in the area of the airport, and the residential area north of the airport, up to the Mendenhall Glacier. A map of this area is attached at the end of this document. A shapefile of this proposed is posted on the CBJ FTP site at:

ftp://ftp.ci.juneau.ak.us/pub/CBJ_Bid_Documents/Juneau_Lidar_Orthoimagery_2013/GIS_files

The vendor is expected to provide final version of LiDAR deliverables for QA/QC tests, and draft or final orthoimagery, for this pilot area within eight weeks of acquisition.

11. Section 2.5.3. Can CBJ elaborate on expectations and/or limitations for project ground control?

The CBJ expects proposals to utilize adequate ground control to meet industry standards for LiDAR and orthoimagery. Proposers should include costs for obtaining suitable ground control. In some cases, the CBJ may be able to provide additional ground control for use in the project.

a. Will existing control in any/all of the 3 Priority Areas be made available for contractor use or will establishment of new control be required?

The CBJ does not currently have ground control points in these areas. Proposals should include recommendations on how to handle ground control in remoter areas, including a suggested minimum number of points, and a discussion on how accuracies can be assessed with less than optimal number of points.

b. Assuming some level of new control will be needed, will CBJ be assuring access to the more remote or private locations of Priority Areas 2 & 3? For example, Greens Creek, Snettisham, Kensington, etc.

Much of these areas are public. In addition, the CBJ has good working relationships with private land owners in these remote areas. It is expected that where new ground control is required, the CBJ can facilitate legal access where needed.

c. Some similar projects in the area have preferred contractors utilize their own Department/Municipality resources for establishment of control, as opposed to contracting a 3rd party. What does CBJ see as most beneficial for this effort?

At this point, the CBJ does not require that proposers utilize the services of CBJ employees or preferred contractors for establishment of ground control. However, it is anticipated that ground control points must be endorsed by a licensed land surveyor.

d. If CBJ resources are to be used, will they be prioritized to this project and available as needed?

Yes, but the CBJ has limited staffing ability for obtaining survey control. An example of field support that can be provided is the use of cartographic grade GPS (Trimble ProXRS) to obtain coordinates of photo ids. Within the constraints of the project schedule, it may be possible to set some photo ground control points, prior to acquiring imagery.

12. In Section 3.11., it is stated that the imagery/LiDAR capture is expected to be completed in approximately 5-7 days under suitable conditions and that the project can be completed within 6-8 months after acquisition. Given the considerable environmental factors that make for "suitable conditions", is CBJ expecting these days to be concurrent and/or to align with the extreme low tides on April 11th or 27th?

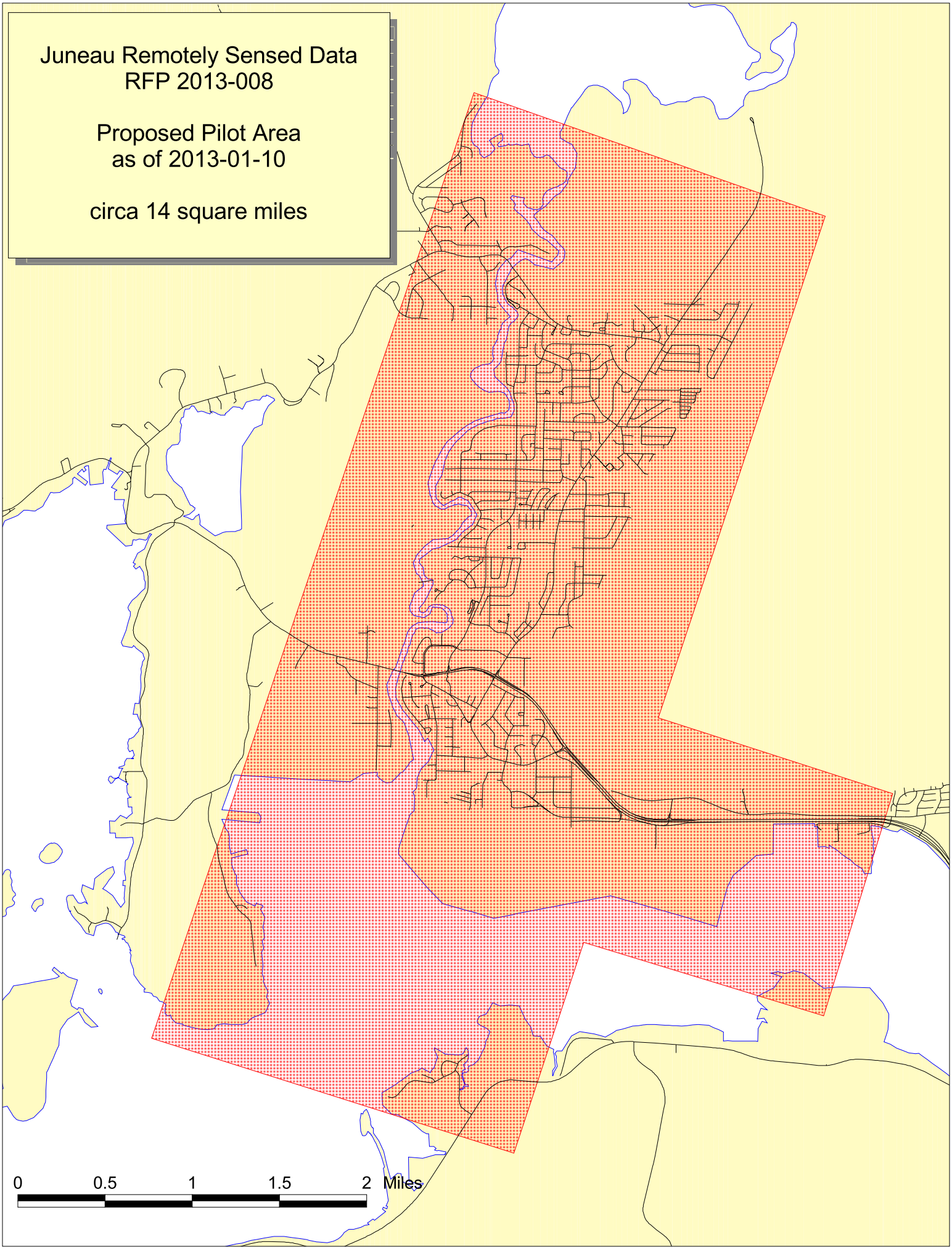
See question 2. Extreme low tide conditions are preferable, but not a determining requirement for acquisition. Leaf-off, and no snow below 500 feet are requirements for orthoimagery and LiDAR. The CBJ anticipates the winning proposer will prioritize acquisition of coastal areas during the lowest tide conditions possible. Concurrent acquisition of imagery and LiDAR is not essential, but desirable.

13. Does the hydroflattening requirement include hydro-enforcement?

No. For hydroflattening in the LiDAR DEM, the CBJ anticipates there will be three major water bodies (the ocean channel, Mendenhall Lake, and Auke Lake), perhaps 10 additional smaller water bodies, and one major river (Mendenhall River). The CBJ anticipates that approximately 6-10 bridges may be associated with the hydroflattening process.

14. Given that multispectral and hyperspectral imagery may require bigger pixels than the RFP specifies, what is the CBJ's preference with respect to additional bands?

The CBJ prefers imagery with 15 cm pixels in four bands (RGB+IR) to imagery with more bands, but with larger pixels.


Juneau Remotely Sensed Data
RFP 2013-008
Proposed Pilot Area
as of 2013-01-10
circa 14 square miles
0
0.5
1
1.5
2
Miles