

Subject

GVC intends to procure recent satellite images to the benefit of the Bekaa Water Establishment (BWE) for use as a basemap within their GIS databases. Considering the size of and variation of urban density across the service area covered by the BWE (Bekaa and Baalbek-Hermel Governorates), the following three categories should be considered:

- Category A: Urban and Semi urban areas including cities, towns, and village centers where high resolution imagery is necessary to accurately delineate buildings, roads, and other landmarks.
- Category B: Rural areas including villages and other peripheries where medium resolution is sufficient to discern building locations and relative positions.
- Category C: Agricultural and unpopulated areas where moderate resolution is enough to inform land use estimations and other navigation needs.

Bidders are asked to submit, along with the below-mentioned deliverables, a shapefile showing the contours of regions classified according to the above categories and a table summarizing the area of each region and the sum of areas per category.

Minimum Specifications

- A. Category A:
 1. Resolution: 0.5m or less
 2. Product Level: Orthorectified and mosaiced
 3. Cloud coverage: < 5%
 4. Off Nadir Angle: < 15 °
 5. Date: 2019/2020
 6. Spectral Bands: 3 bands (R,G,B)
 7. RMS: better than 5m
 8. Projection: UTM 36N, WGS84
 9. Image Format: GeoTIFF
 10. Satellite image product used for this project must be of reputable origin.
- B. Category B:
 1. Resolution: 1m or less
 2. Product Level: Orthorectified and mosaiced
 3. Cloud coverage: < 10%
 4. Off Nadir Angle: < 25 °
 5. Date: 2019/2020
 6. Spectral Bands: 3 bands (R,G,B)
 7. RMS: better than 7m
 8. Projection: UTM 36N, WGS84
 9. Image Format: GeoTIFF
 10. Satellite image product used for this project must be of reputable origin.
- C. Category C:
 1. Resolution: 2m or less
 2. Product Level: Orthorectified and mosaiced
 3. Cloud coverage: < 15%
 4. Off Nadir Angle: < 25 °
 5. Date: 2019/2020
 6. Spectral Bands: 3 bands (R,G,B)
 7. RMS: Max 10 m
 8. Projection: UTM 36N, WGS84
 9. Image Format: GeoTIFF
 10. Satellite image product used for this project must be of reputable origin.

Mandatory Deliverables

- a. One set of raw 0.5m resolution satellite imagery
- b. One set of raw 1m resolution satellite imagery
- c. One set of raw 2m resolution satellite imagery
- d. One set of natural colors 0.5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- e. One set of natural colors 1m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- f. One set of natural colors 2m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format

Optional deliverables

- a. Contour lines: GIS shapefile, vector type, line feature, 1m interval.
- b. Roads: GIS shapefile, vector type, line feature.
- c. Buildings: GIS shapefile, vector type, polygon feature.
- d. Buildings: GIS shapefile, vector type, point feature.
- e. Landmarks: GIS shapefile, vector type, point feature.