

Hexagon Imagery Program - Acquisition Specifications

Specification	30cm Program
(Planned) allowable GSD	Maximum 0.4 meter
Accuracy	RMSE _{x/y} = 1.2m RMSE _r = 1.7m CE90 = 2.6m CE95 = 3.0m
Minimum sun angle	30°
Cloud/cloud shadow	≤10% and not obscuring HVA area or paved roads or other transportation network
Smoke/fire	May be cause for rejection
Persistent smoke (volcano, factory, crop burn, etc.)	Allowable – not cause for rejection
Snow/ice cover	Permanent snow/ice is acceptable
Specular reflection	Allowable provided shoreline and surrounding features are not obscured
Maximum allowable image shear	≤ 3 pixels
Band-to-band pixel misregistration	≤ 0.5 pixel and no perceivable color fringing
Sidelap	Minimum 27%
Non-pixel data	DN value of 0 and 255 reserved for non-data
Acceptable image blemishes, scratches, artifacts, etc.	Imagery should be blemish and artifact free
Flooding/standing water	Acceptable as long as paved roads or agricultural field boundaries are not obscured
Smear and/or occlusion	No stated policy but subject to call-out
Clipping	Cumulative luminosity pixel count for bins 0-5 and 250-255 shall not be less than 98%, preferably > 99%
Contrast	Difference between cumulative pixel counts containing 99% and 1% of the data shall be greater than 59% of the bit depth, ±4% Target: 150 Minimum: 140 Maximum: 160
Brightness	Mean pixel count within ±7.5% of the middle DN value Minimum: 108 Maximum: 147
Color balance	Neutral objects shall be have a DN difference of no more than 5 for any RGB triplet
Bridge warp/smear	Bridge/freeway/causeway warp/smear is not acceptable
Building seamline sheer	Within HVAs only