

LARIAC 4 Orthoimagery Quality Assurance

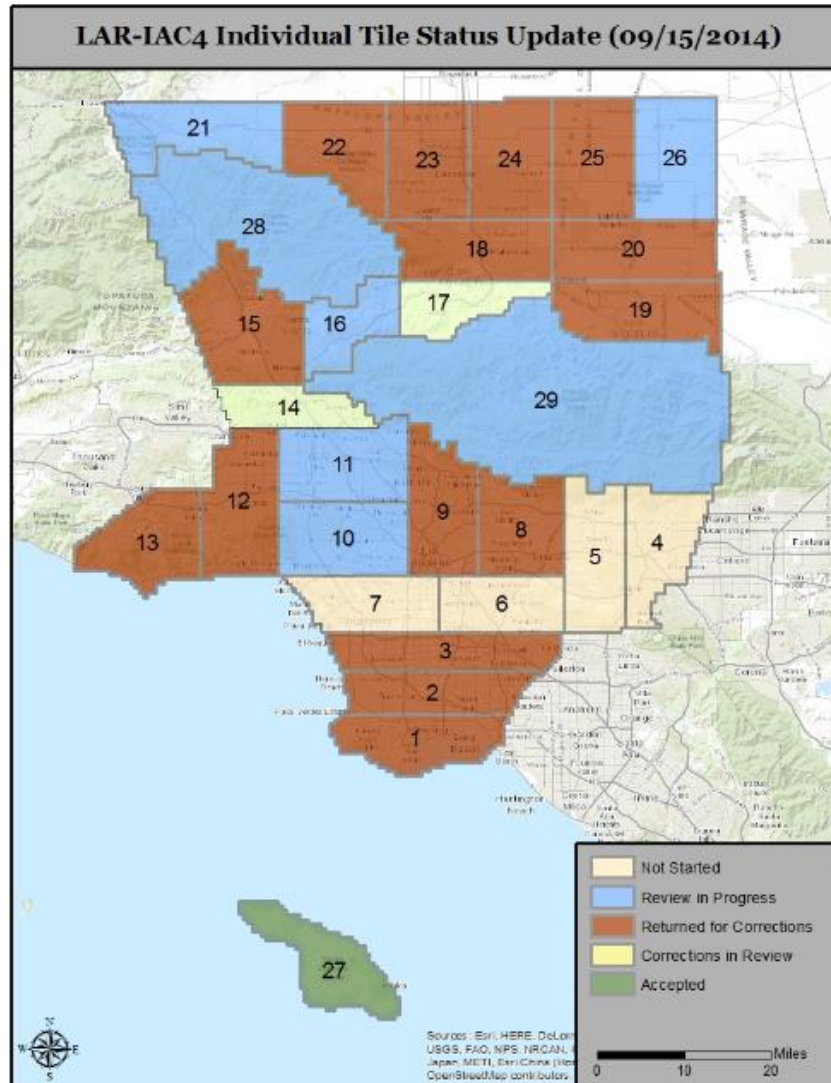
Dewberry

Josh Novac – Deputy Project Manager

Project Overview

- Review consists of 29 Blocks
- 13,810 total tiles
 - 12,730 – 4” tiles
 - 1,080 – 12” tiles
- Review is conducted according to the quality plan developed for LARIAC.
- 100% of all tiles are reviewed using automated and manual approaches.

Project Overview



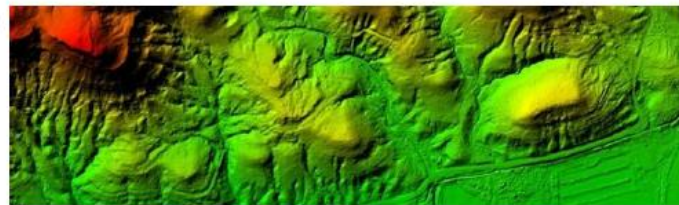
Quality Plan



ARCHITECTS ENGINEERS CONSULTANTS



VERSION 4.2



Quality Plan for the Los Angeles Regional Imagery Acquisition Consortium 4 (LAR-IAC4) Project

April 03, 2014

PRODUCED BY:

Dewberry
8401 Arlington Blvd.
Fairfax, VA 22031-4666
703.849.0396

PRODUCED FOR:

LARIAC
500 West Temple Street
Suite 493
Los Angeles, California 90012
213.974.2154



Acceptance Criteria

	Responsible Company	Tested Characteristic	Measure of Acceptability
A		All Scales Orthoimagery	
A.1.	Sanborn to Dewberry; then Dewberry to LAR-IAC	Media: USB External hard drives	Media is readable, all files accessible, no files corrupted
A.2.	Dewberry	Media label	As specified by LA County
A.3.	**	File organization	Files written in tile sheet order
A.4.	Sanborn	File name	Conforms to required convention- based on CA SPCS Zone 5 L4_XXXX_YYYYA (a-d) for 4 inch and XXXX_YYYY for 1 foot orthos
A.5.	Sanborn	GeoTIFF format	File reads in ESRI (see sample of GeoTIFF header)
A.6.	Sanborn	Files must open in correct location	Files must open with ESRI software
A.7.	Sanborn	Pixel definition	GeoTIFF file must reference to the center of the pixel located in the upper left hand corner of the tile as the point of origin
A.8.	Sanborn	Georeferencing	For correct pixel size 0.33 ft (4 inch) and 1 ft.
A.9.	Sanborn	Vertical Datum	NAVD88
A.10.	Sanborn	Projection	NAD 1983 State Plane – California Zone V
A.11.	Sanborn	Horizontal Datum	NAD 83 reference datum
A.12.	Sanborn	Units	U.S. Survey Feet
A.13.	Sanborn	24 bit natural color	256 levels of value for each band, 0=black, 255=white
A.14.	Sanborn	Conformance with tile index grid	Tile matches grid, no gaps between tiles at 1:1 view.
A.15.	Sanborn	Coverage	Full tiles; no voids. As indicated in County Data and Reference Maps. The basic rule is at least 500' buffer around LA County boundary (no partial tiles, no seams and no overlaps) with all tiles delivered being full tiles. Flying and image capture teams should be aware of this.
A.16.	Sanborn	Tile grid layout	Full tiles only with no gaps or seams between 4 inch and 1 ft. areas. Flying and image capture teams should be aware of this.
A.17.	Sanborn	Metadata	Complies with standard metadata delivered for LAR-IAC4 (to be determined by LA County). Meets minimum FGDC Content Standard.
A.18.	Pictometry	Pictometry sensor anomalies	Contractor will work to identify and correct any

A.19.	Sanborn	Radiometry	Radiometry should be consistent throughout the imagery, on large and small scales. In general, details should be visible in shadow and in bright areas of the images and values of 0 or 255 should be minimal. < 2 percent of values at 0 or 255, to the extent possible per client's radiometry choices. Radiometry target chips (from "Prototype" areas) will be reviewed and approved by the LA County prior to orthoimagery production. The chips will provide a guide and expectation of final imagery appearance.
A.20.	Sanborn	Image Appearance	No image artifacts. Imagery should not appear speckled or pixilated when viewed at compilation scale assumed to be 1"=100' (water surfaces are exempt from this requirement with the exception that water surfaces must meet the "Governor's Test"). For example the water surface of inland bodies of water should be made more consistent so as not to cause concern regarding cleanliness or the water.
A.21.	Sanborn	Color Consistency	Colors should be consistent throughout the content of the 12 inch product and the 4 inch product. The 12 inch product will be color balanced separately from the 4 inch product. Mosaic seamlines should not produce great visual (tonal, brightness) differences in imagery on either side (water being exempt from this requirement). In some instances, greater differences may be allowed if the correction will cause significant degradation of the image content on either side. Color balancing between tiles should be as consistent as possible. No image will be rejected for radiometry inconsistencies without prior approval of LA County.
A.22.	Sanborn	Smears	Normally corrected by adding mass points or breaklines to DTM as necessary to reflect actual terrain or by image processing where appropriate. Where DTM corrections or image processing will result in reduced horizontal accuracy or misrepresentation of the location or appearance of important features (buildings, roads, etc.), the smear will remain untreated. No image will be rejected for smears without prior approval of LA County.
A.23.	Sanborn	Wavy features	Distinct linear ground features (such as road markings, and curbs) should not deviate from



Current Status Update

- As of 9/18/2014 Dewberry has received a total of 27 of the delivery blocks and has completed the review of 21 blocks.
- Three additional blocks will be complete by 9/22/2014
- The review has identified 2,731 edit calls (plus ~500 edit calls related to edge matching between blocks)
- At the start of the project it was also identified that the incorrect cell size was used on the initial blocks resulting in required reprocessing of the data. The cell size issue was causing misalignments throughout the project area.

Common Edit Calls

- Visible Seamlines
- DTM Smears
- Warped Features (Buildings/Bridges)
- Seamlines through buildings
- Tone/Color issues along the coast

Color/Tone



Visible Seamline



Misalignments



Wavy Features

