Progression showing creation of Landsat 8 base layer for ProPublica's Losing Ground.

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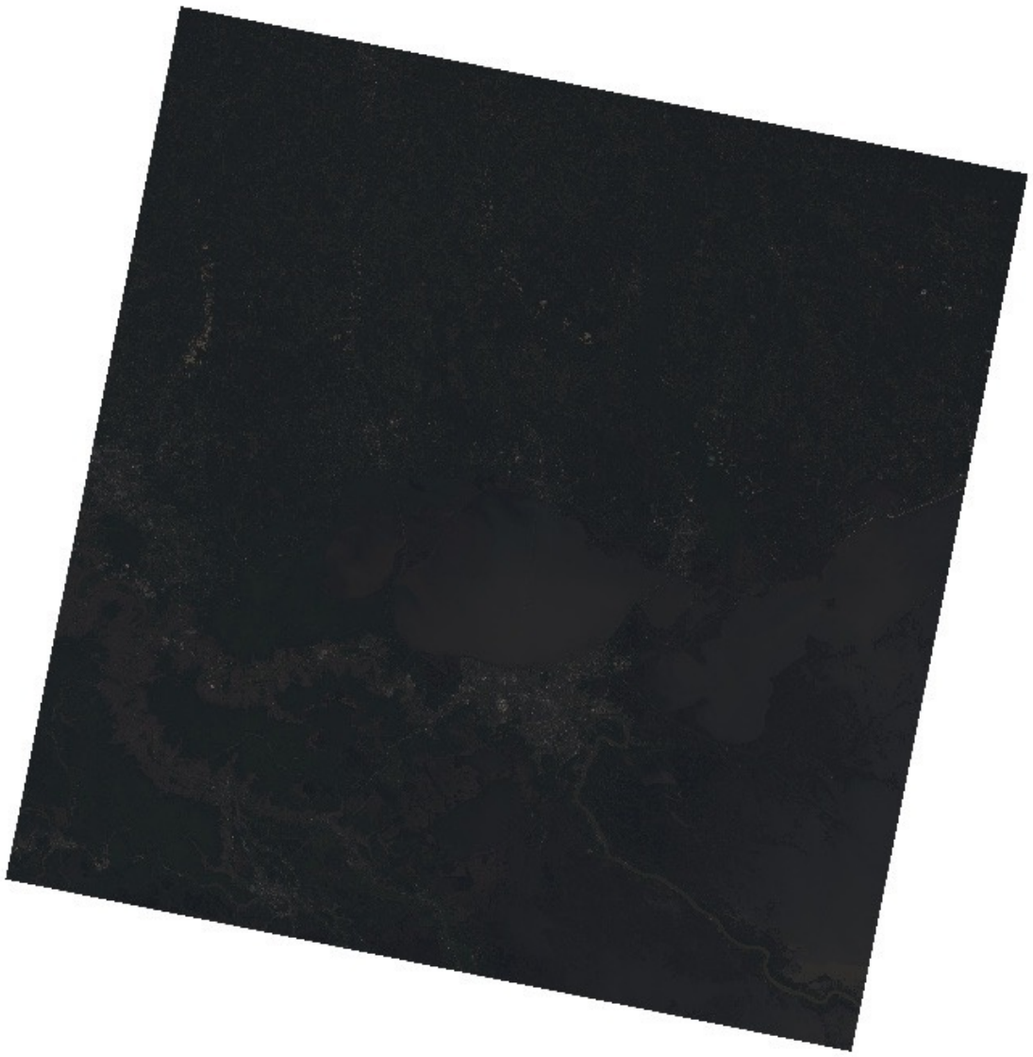
Using an infrared mask (band 5) we placed 15m pan-sharpened true-color (bands 4-3-2) within land areas. Water areas use the 30m "natural infrared" image (bands 7-5-3). This affords us maximum resolution for land with maximum contrast and low sediment water. This was effective for overlaying historical land cover layers.

Inspired by techniques by:

Tom Patterson
http://www.shadedrelief.com/landsat8/landsat8bluewate.html

Rob Simmon
http://earthobservatory.nasa.gov/blogs/elegantfigures/2013/10/22/how-to-make-a-true-color-landsat-8-image/



Unprocessed true color scene (4-3-2)

Processed true color scene (4-3-2) w/ alpha gradient. 15m w/ pansharpening.

15m true color (4-3-2) 6-scene mosaic.

30m "Natural infrared" (7-5-3) 6-scene mosaic.

Infrared (band 5) mask

15m true color (4-3-2) within black of mask.
30m natural infrared (7-5-3) within white.

Detail area

Detail: 15m true color (before)

Detail: 15m true color / 30m natural infrared (after)