Preston Hudlow

Dr. Hua Liu

GEOG 404

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Assignment 5

Question 1: How many GCPs have you selected? What is the total RMS error for your geometric correction?

I selected 25 GCPs and my total RMS error was .7686.

Question 2: Describe the associated errors that might be introduced with the image-to-map rectification method during the geometric correction process.

With the nearest neighbor resampling can produce pixel misalignment which alters the image to map projection. This is due to the pixel values being adjusted or interpolated.

Question 3: Suppose you selected a number of GCPs that were taken from both natural (folk in the river) and man-made (road intersection) features. Briefly and fully summarize the possible reasons why some of the GCPs might have higher or lower initial RMS errors than others.

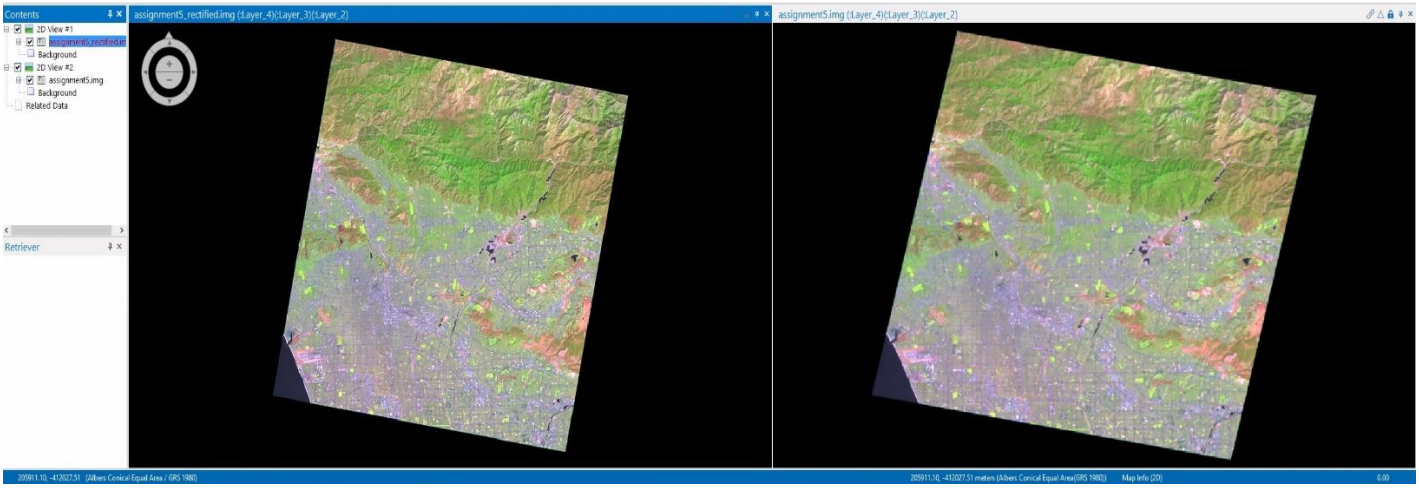
Most GCPs have similar RMS errors but some areas have a higher or lower RMS. A natural area can change over time which may alter the RMS error whereas a street or building side of a man-made feature sticks its position over time which can lower the RMS error and correctly plot the GCPs.

Question 4: How might the characteristics of a remote sensing image (e.g., study area location and resolutions of the sensor used) lead to easier or more difficult rectification of the image?

It allows for easier rectification depending on the topography. A flat piece of land is easier to rectify versus areas with hills or rugged terrain can become more difficult. The sensor type can also play a major role as you can distinguish between features easily depending on what is used. This allows the rectification process to become easier when locating GCPs.

Question 5: What is your definition of the ideal Ground Control Point?

It would be a control point that is visible and reliable. It would provide accuracy, stability, and accessibility. This would allow for diverse locations to be geo-referenced for future studies.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