

1. When is Georeferencing used?

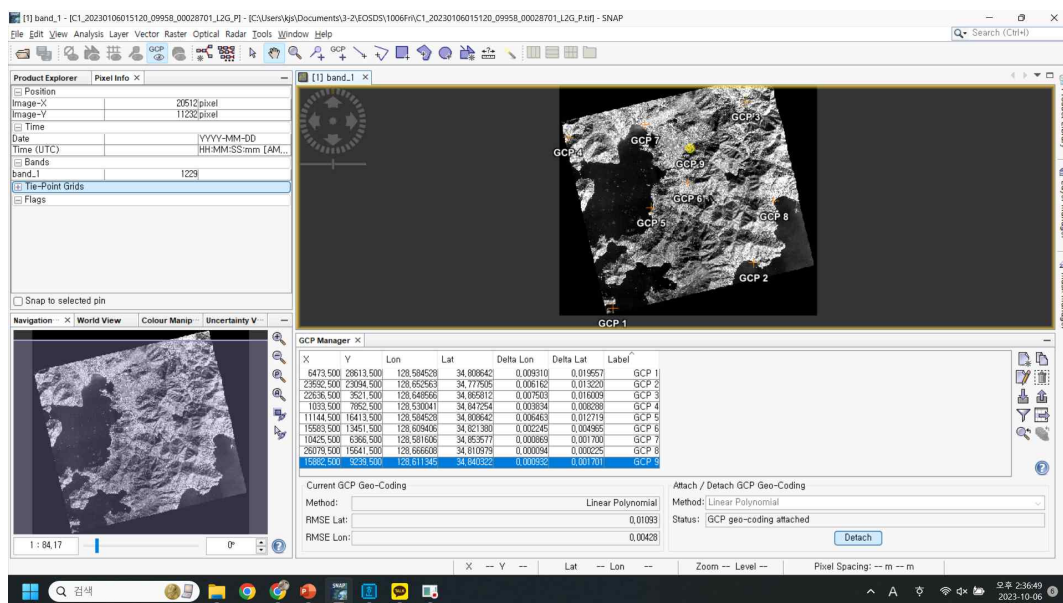
- ㄱ. When latitude and longitude information is not provided for a given pixel in an image file, georeferencing is performed to assign latitude and longitude coordinates to that pixel.

2. What is the best choice for selecting GCP (Ground Control Point) locations, and why?

- ㄱ. Select a stationary and easily identifiable artificial structure or landmark. It's preferable if it's not too high to minimize the impact of altitude-related time differences. Be cautious not to choose points that change over time due to factors such as tides, like coastlines.
- ㄴ. Set up GCPs to be evenly distributed and avoid concentrating them in specific areas of the image.

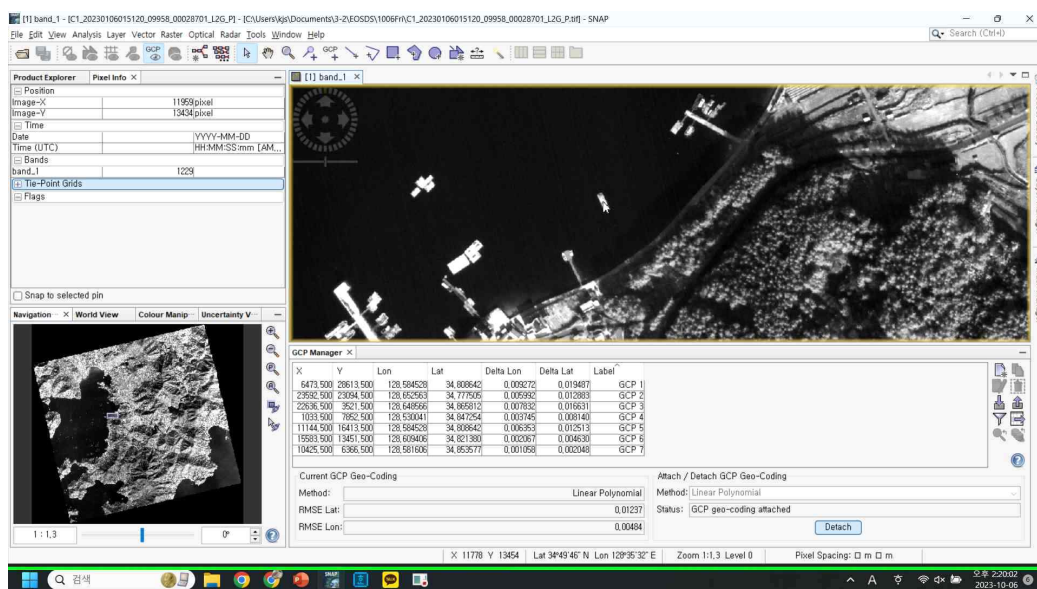
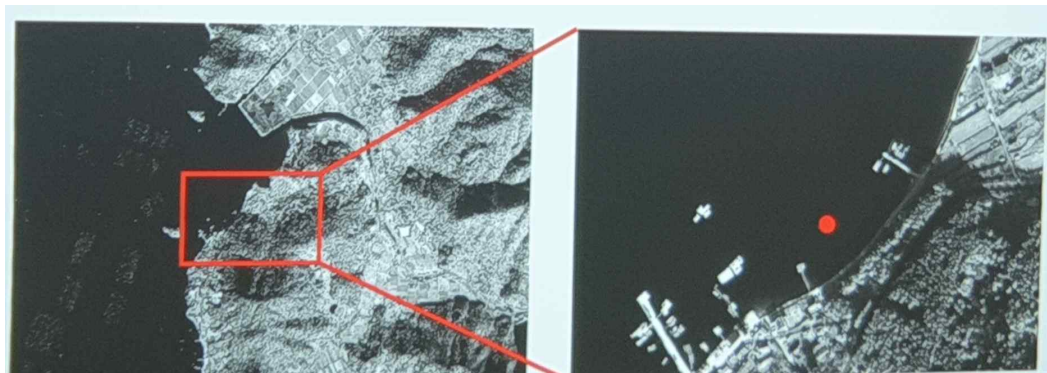
3. How many GCPs are needed for an accurate aerial map?

- ㄱ. For georeferencing, a minimum of 3 GCPs is required, and having more GCPs results in higher accuracy. It is reasonable to perform georeferencing with 4 to 5 GCPs.



Number of GCPs	RMSE Lat	RMSE Lon
3	0	0
4	0.01441	0.00556
5	0.01444	0.00565
6	0.01332	0.00521
7	0.01237	0.00484
8	0.01157	0.00453
9	0.01093	0.00428

4. After completing georeferencing using five or more points, please determine the coordinates of the red dot in the following image using Pixel info.



Latitude	Longitude
34°49'46" N	128°35'32" E