Shape Recovery on Low-Quality or Missing Images

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Approach
Noise

Case_1_1xNoise

Case_1_2xNoise

Case_2_1xNoise

Case_2_2xNoise
MCMC Output
Post-Processing

1. Remove small 8-connected regions in both foreground and background

2. Remove large 4-connected regions in foreground and keep their edges

3. For each row, only keep the leftmost and the rightmost foreground pixel
Preliminary Results: Noise Level 1
Preliminary Results: Noise Level 2
Preliminary Results: Noise Level 3
Next Step

- SAR dataset: 30 aircraft objects
- Compare Shape Output with Ground Truth View from Google Earth
Reference