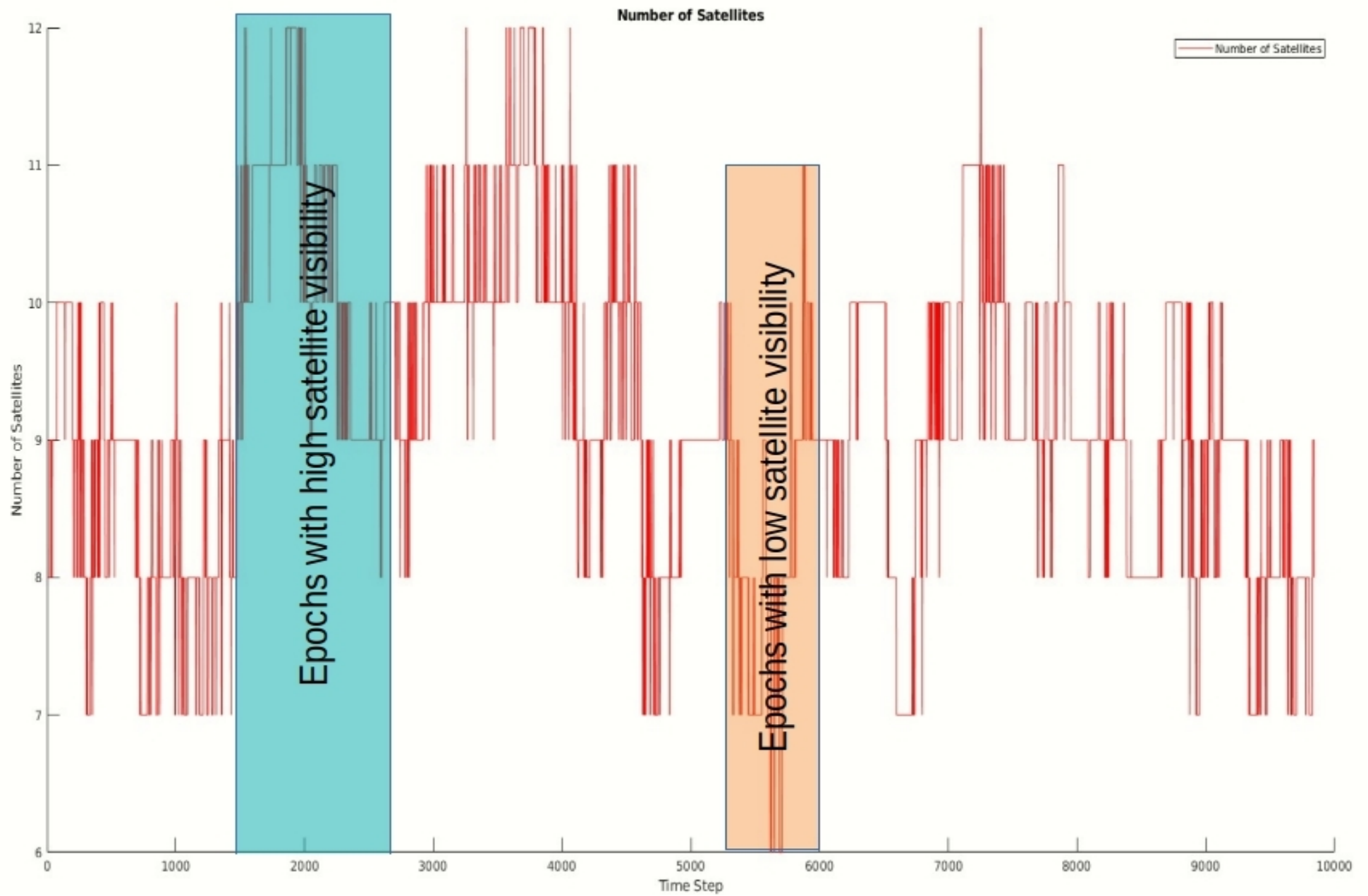
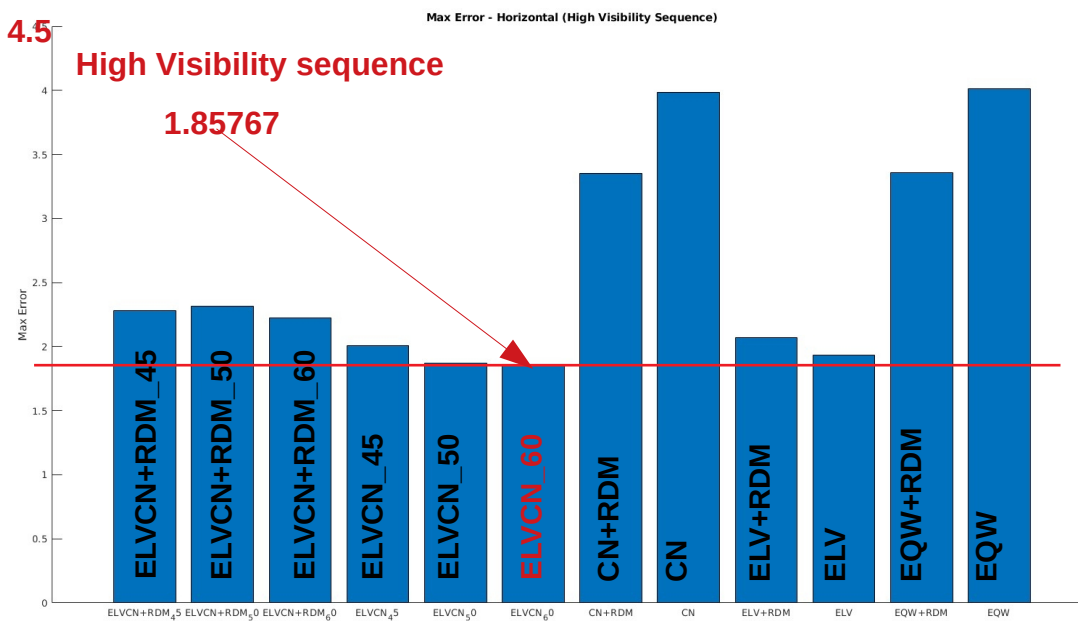
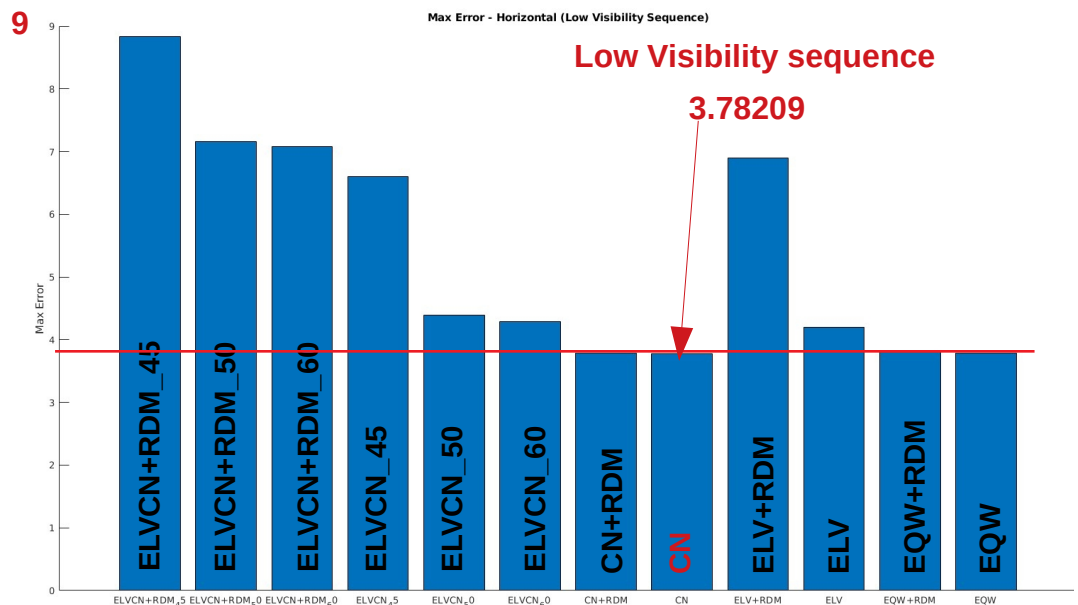
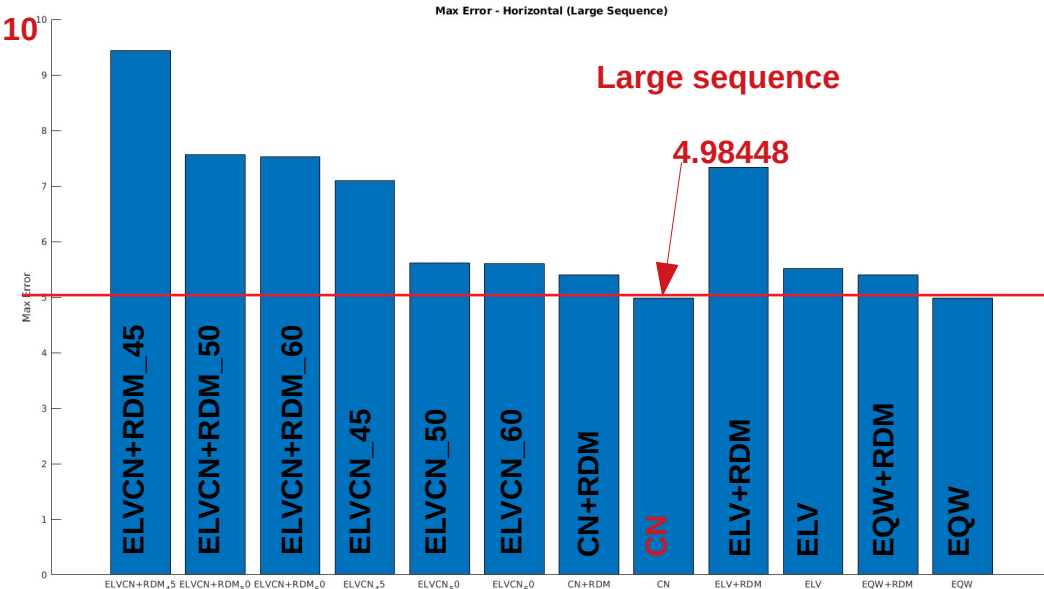
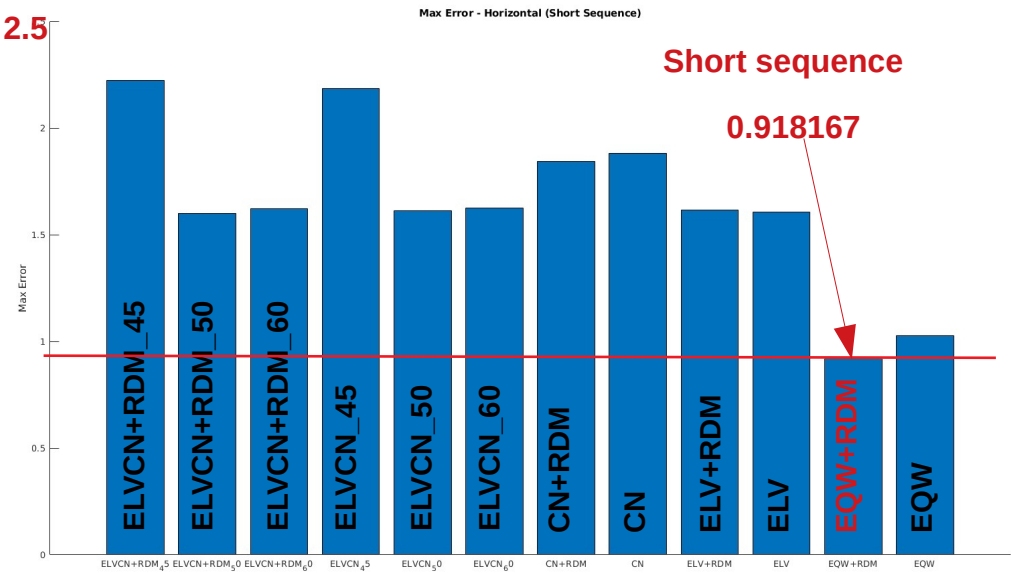


Satellite Visibility Regions

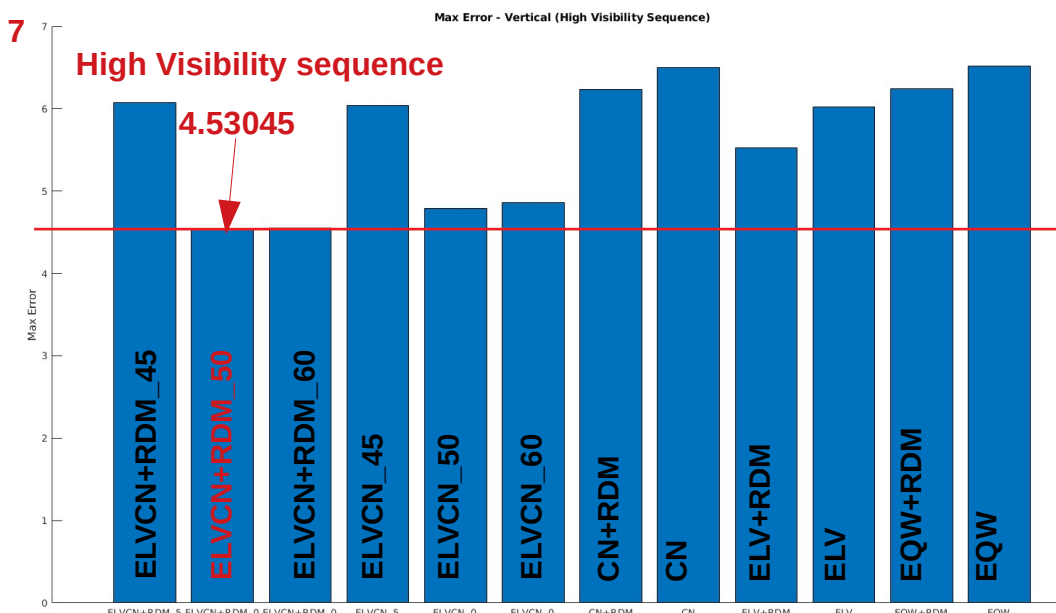
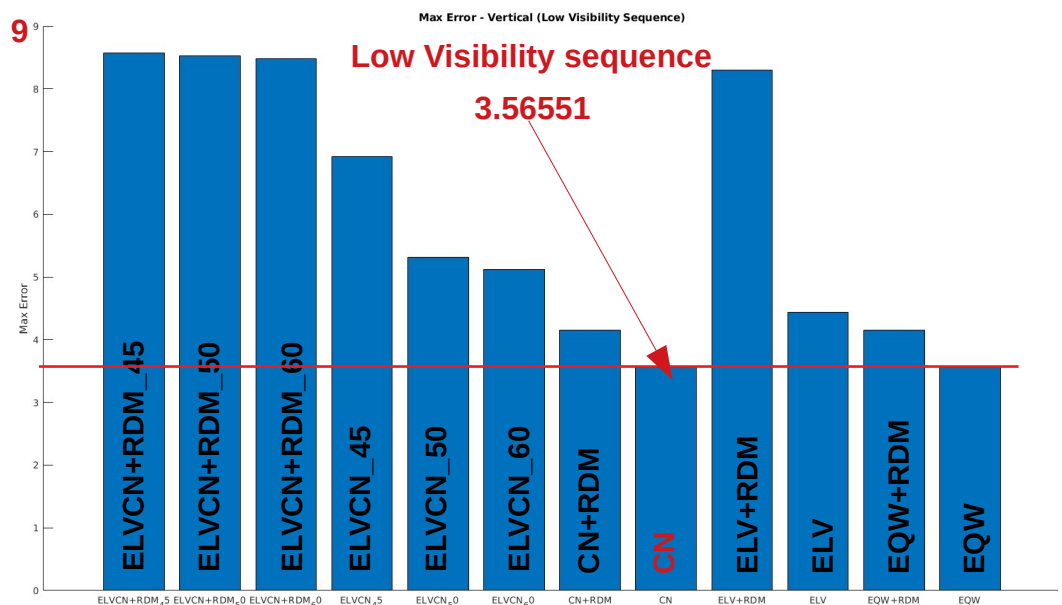
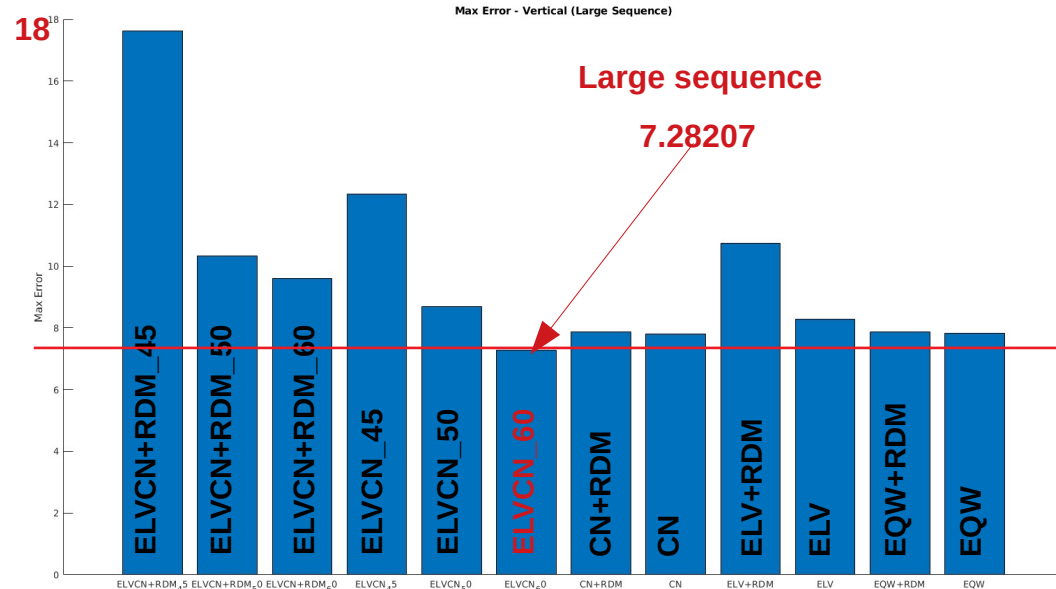
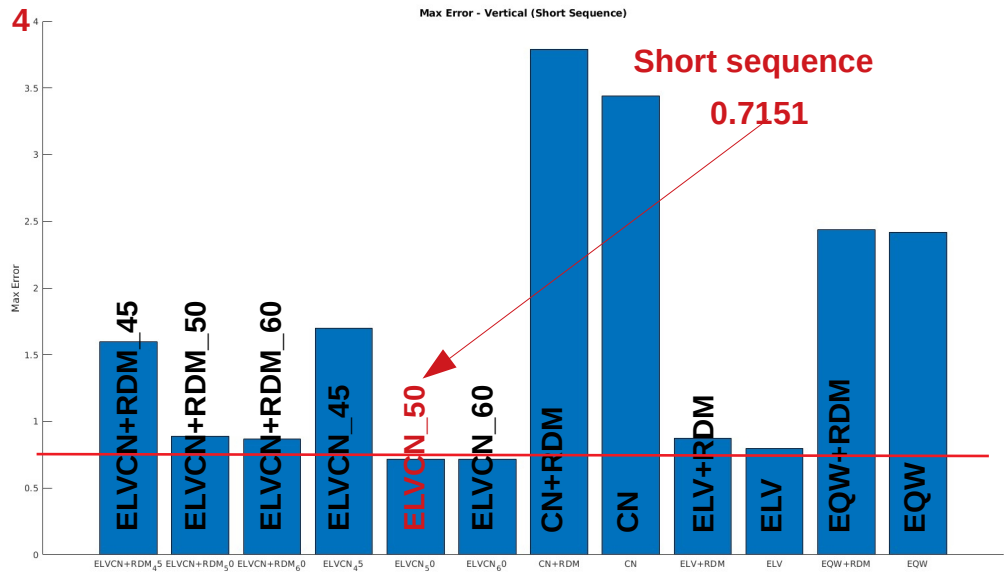
Elevation Mask: 0



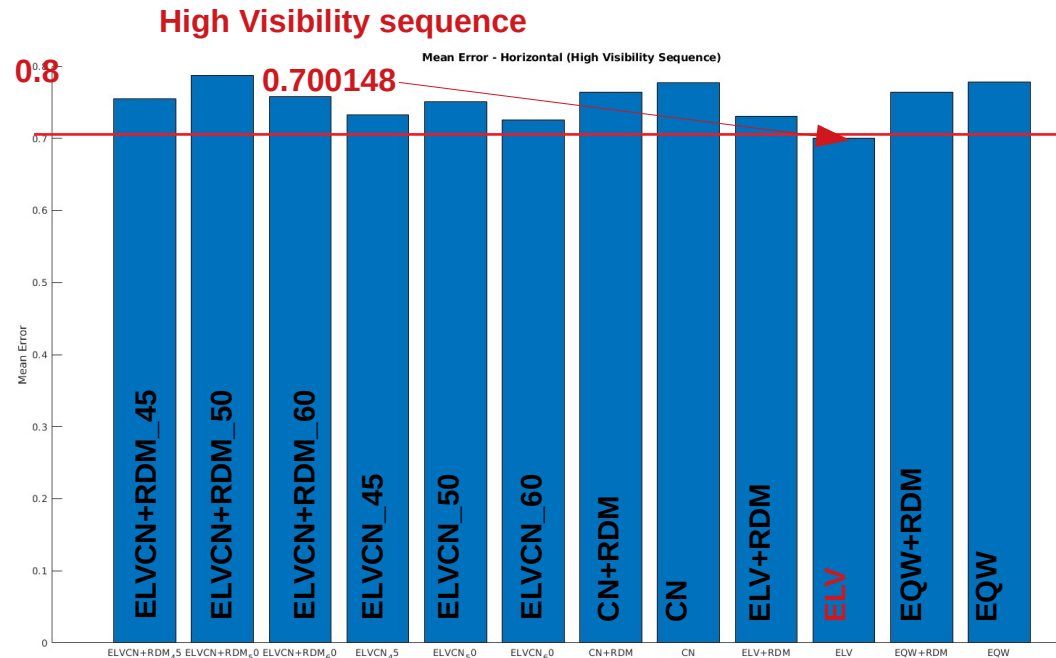
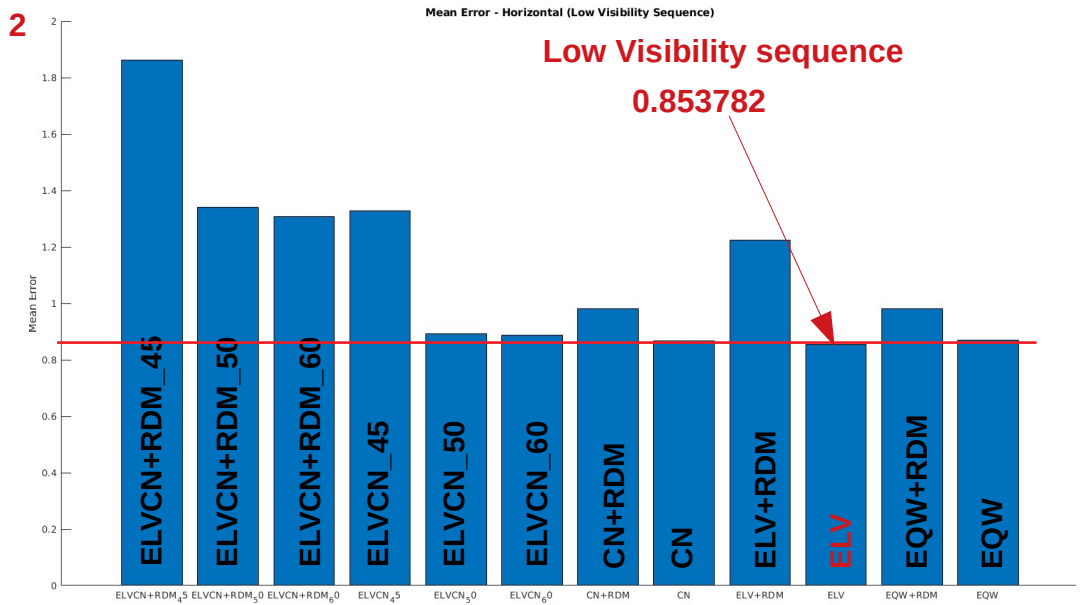
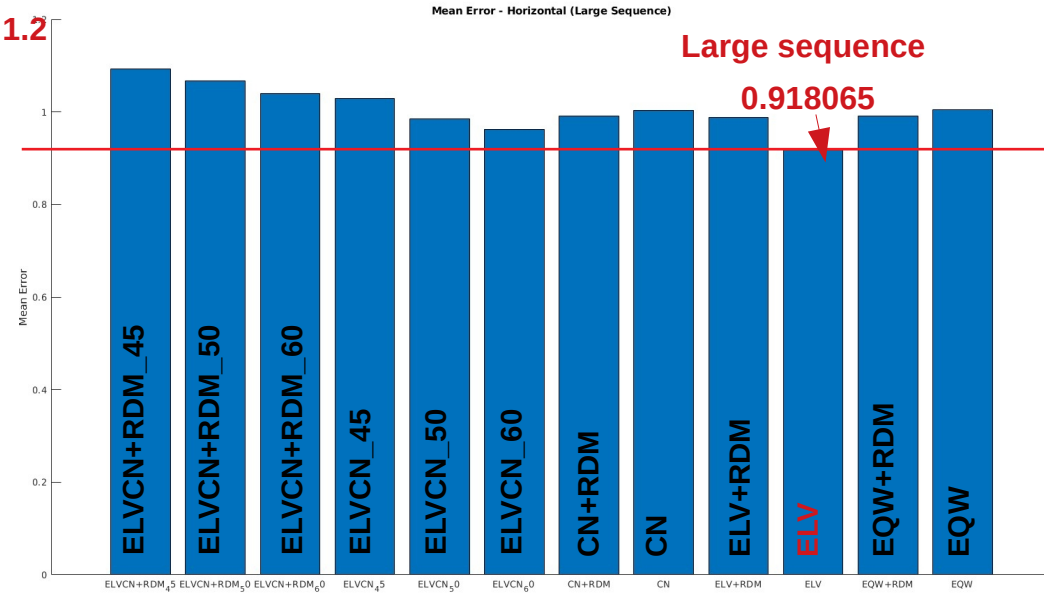
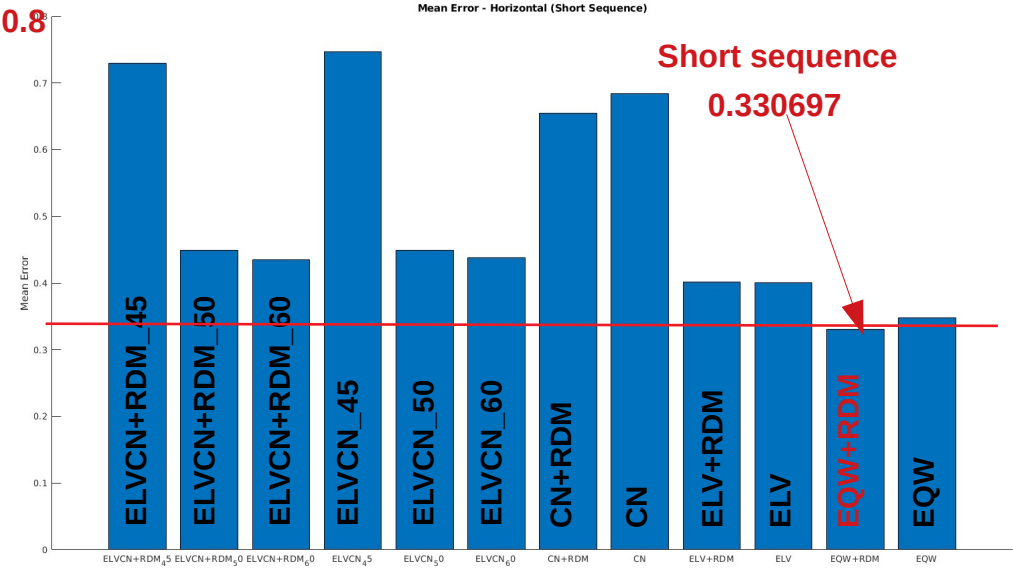
Max Error - Horizontal



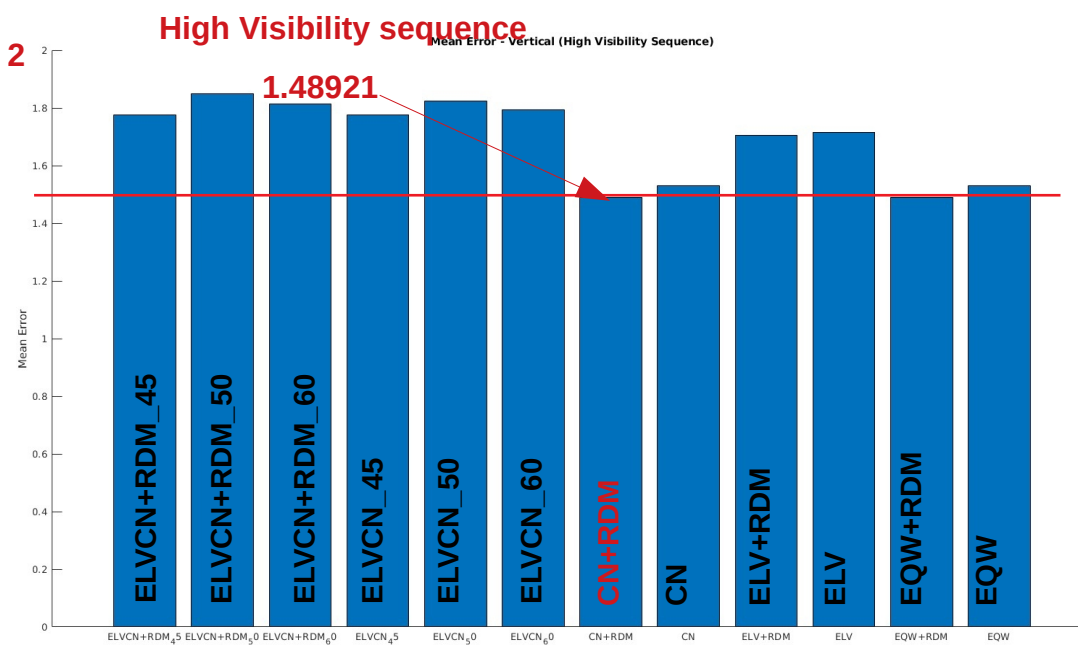
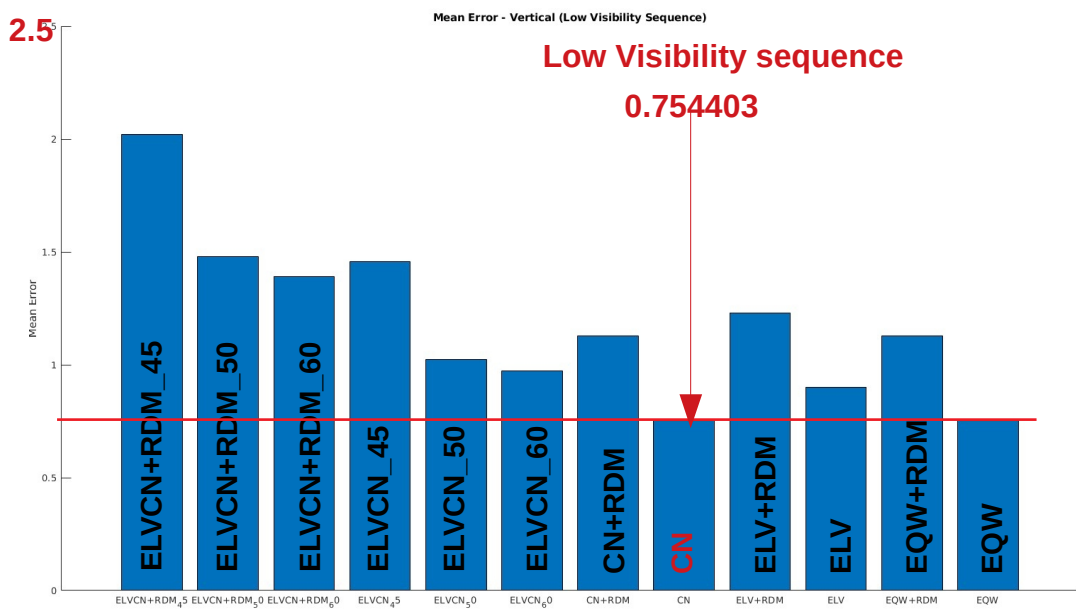
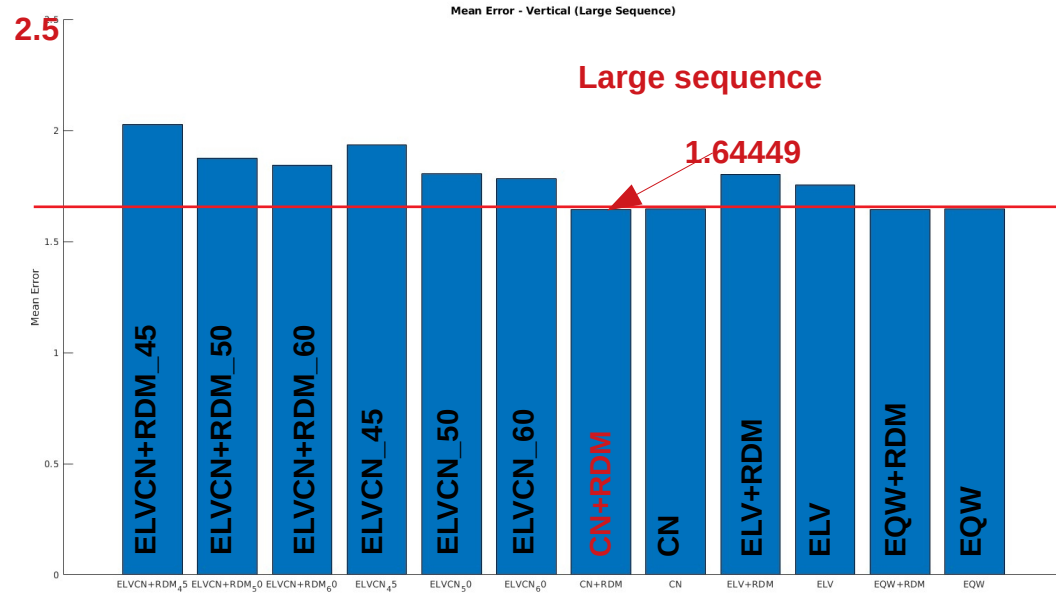
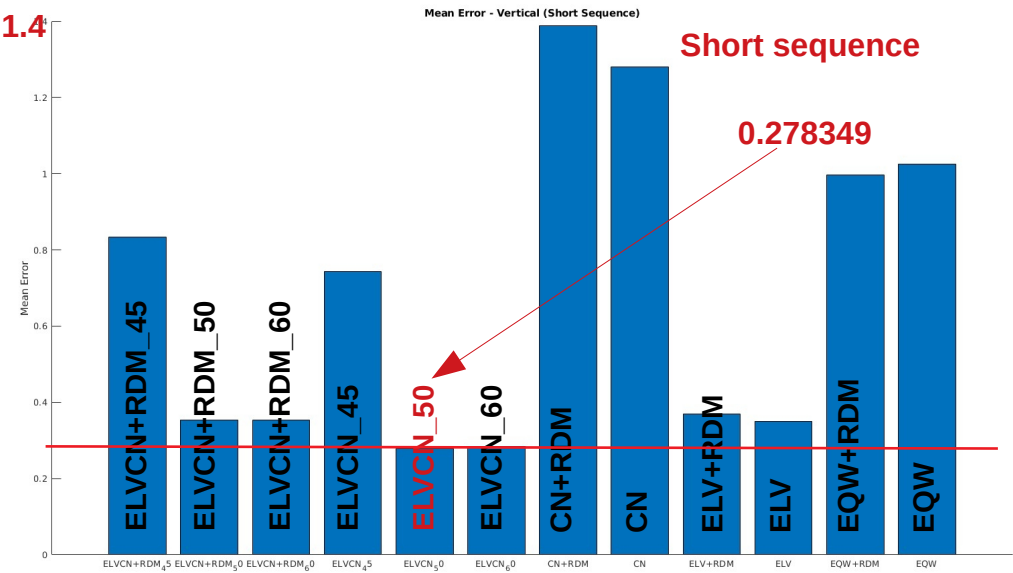
Max Error - Vertical



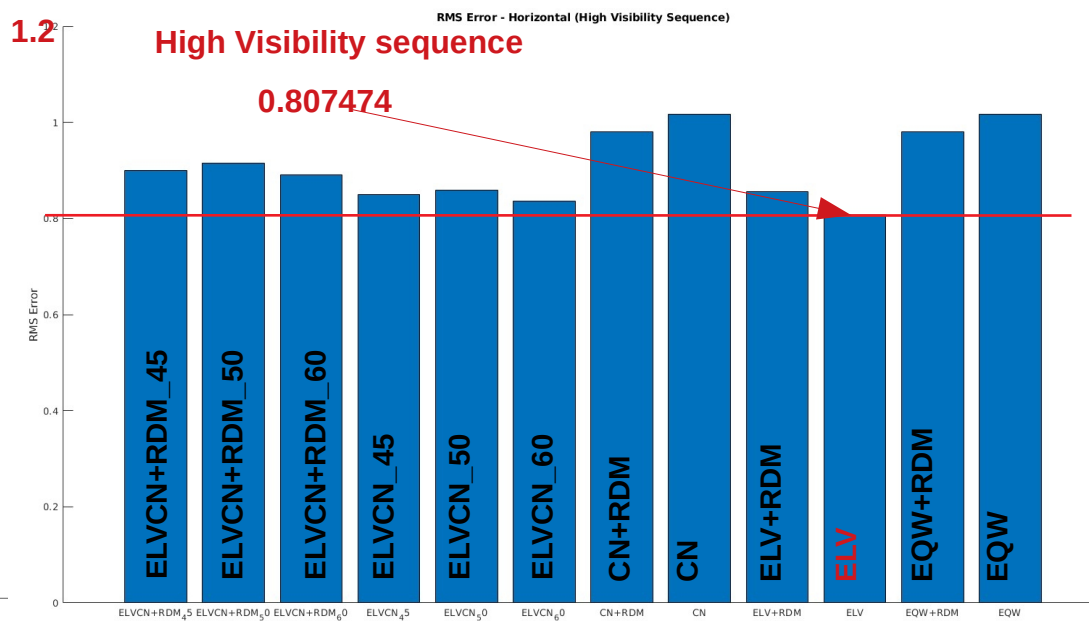
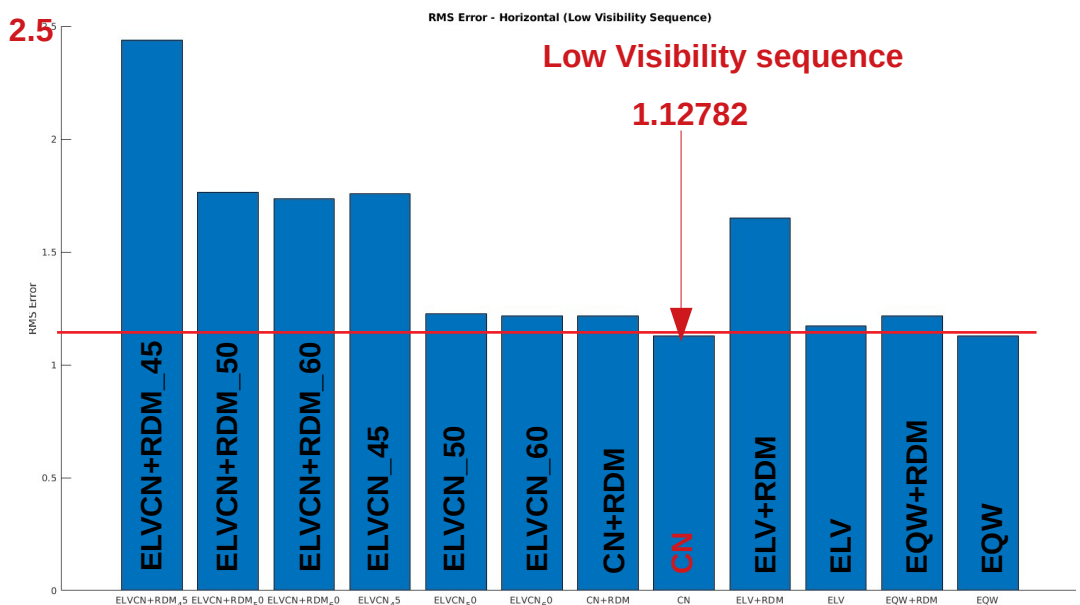
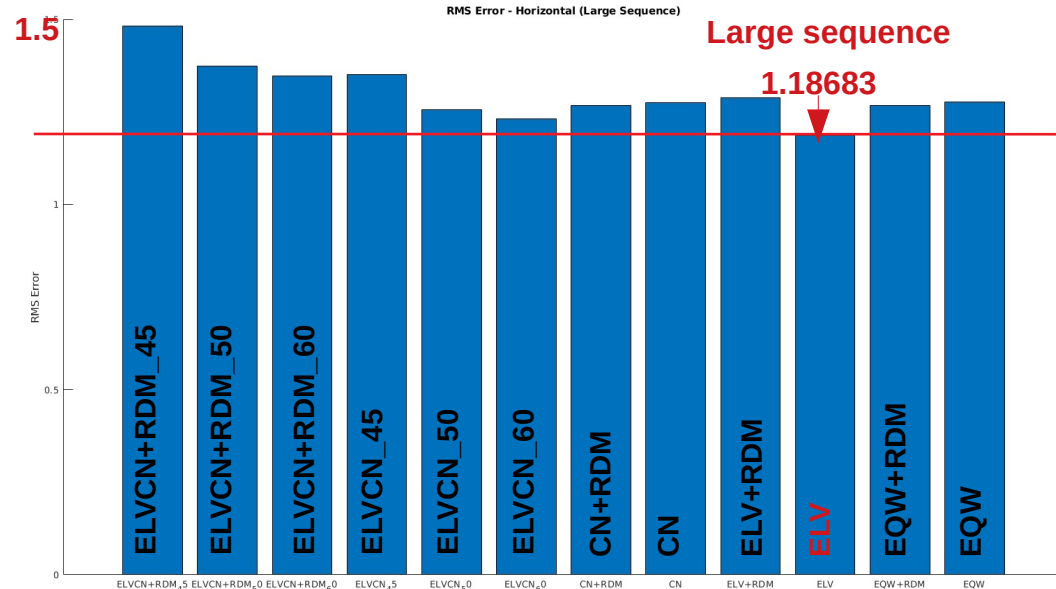
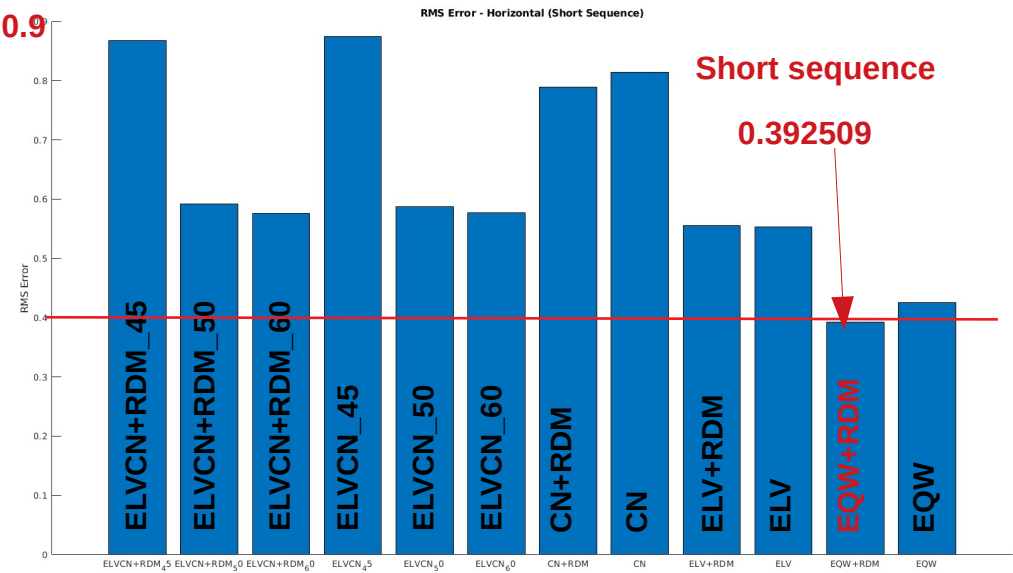
Mean Error - Horizontal



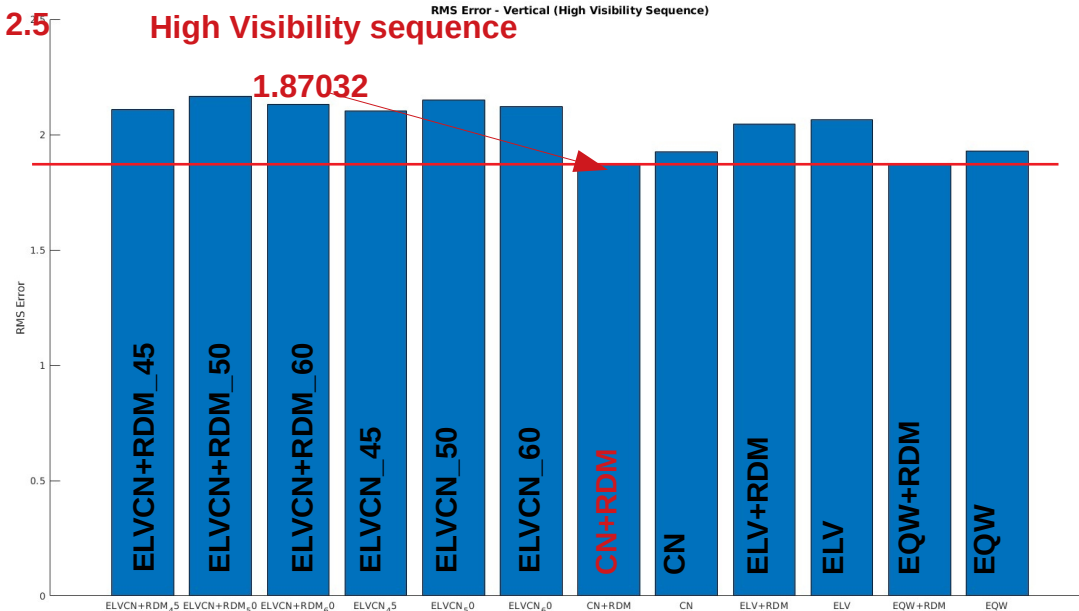
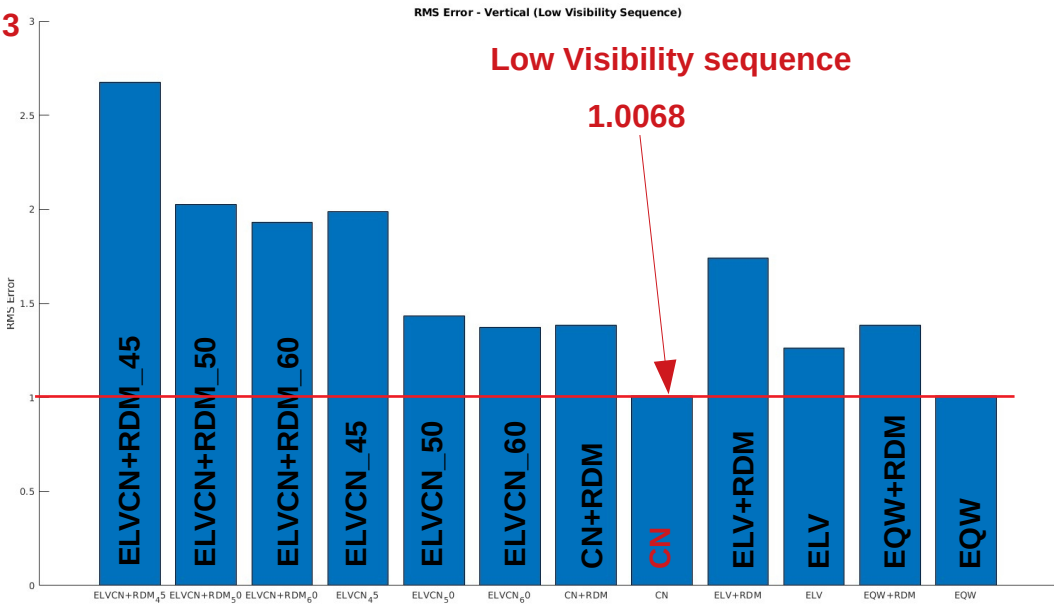
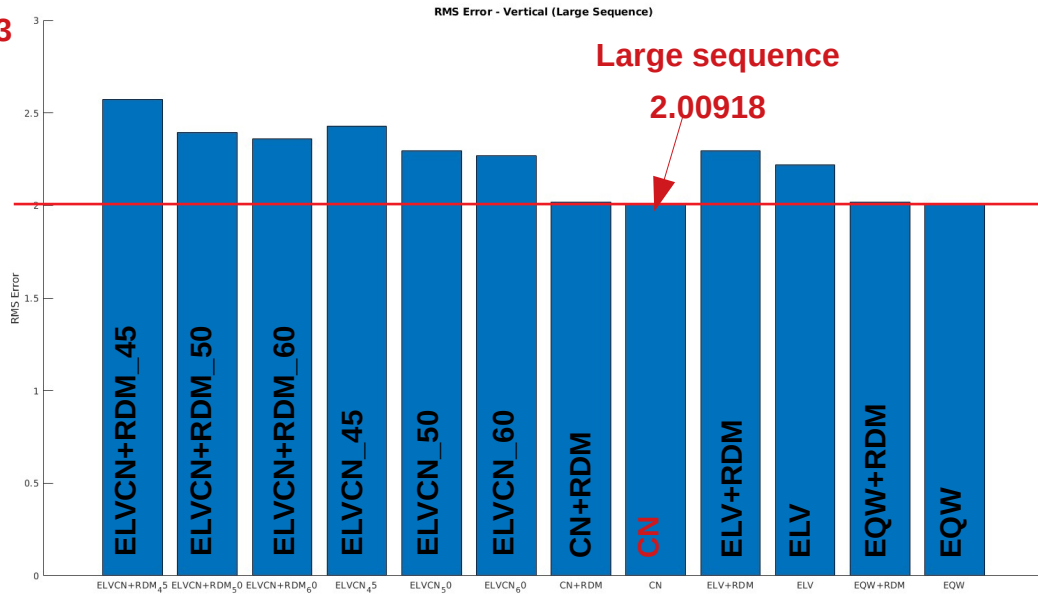
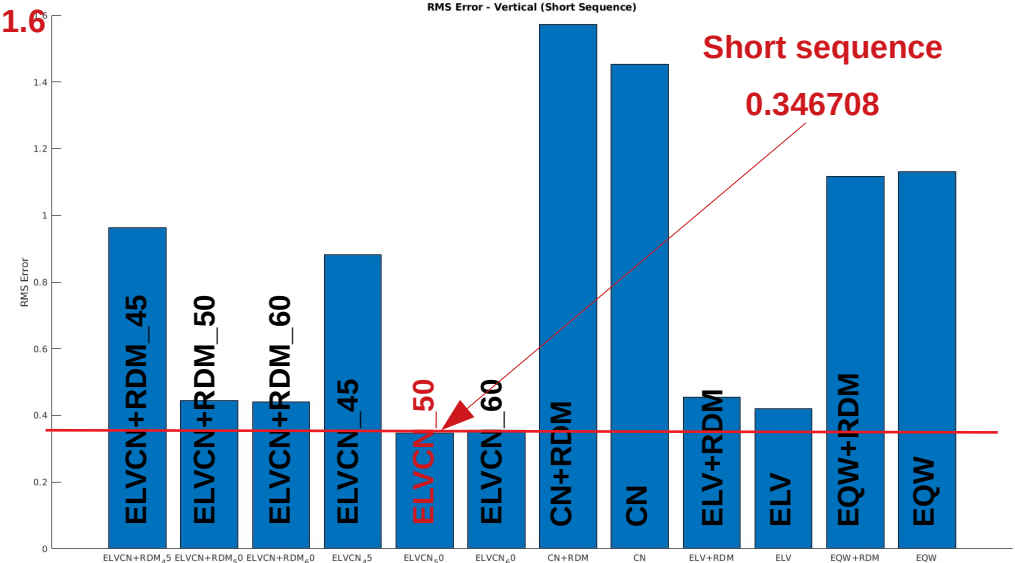
Mean Error - Vertical



RMS Error - Horizontal



RMS Error - Vertical



INFERENCES

Redundancy Matrix

Redundancy matrix provided better results or in some cases slightly worse or similar errors in both high visibility sequence and short sequence.

In case of the large sequence or the low visibility sequence the redundancy matrix performed comparatively worser than techniques without redundancy matrix.

Best Performing Techniques by error type:

Horizontal

Max Error: EQW+RDM (Short), CN (Large), CN (Low), ELVCN_60 (High)

Mean Error: ELVCN_50 (Short), ELVCN_60 (Large), CN (Low), ELVCN+RDM_50 (High)

RMS Error: EQW+RDM (Short), ELV (large), CN(Low), ELV (High)

Vertical

Max Error: ELVCN_50 (Short), ELVCN_60 (Large), CN (Low), ELVCN+RDM_50 (High)

Mean Error: ELVCN_50 (Short), CN+RDM (Large), CN (Low), CN+RDM (High)

RMS Error: ELVCN_50 (Short), CN (Large), CN (Low), CN+RDM (High)

CONCLUSION

From the inferences before we observed that weighting techniques outperform traditional techniques without weighting. By looking at the plots before, this is more evident in the vertical direction (altitude). In the Horizontal direction we saw that all techniques show comparable rms errors with the weighting techniques performing relatively better than traditional non weighted (equal weights) technique.

We were not able to observe any drastic improvements for the use of redundancy matrices, but in general redundancy matrix usage gave slightly better or slightly worse error compared to not using redundancy matrix.

Looking at the better performing techniques as seen in inference we have seen that in general combined elevation angle and snr weighting technique with a signal threshold of 50 dBHz performed best.

Also we observed that for sequences with low satellite visibility, and the large data sequence we find that snr or combined elevation and snr weighting techniques performed well.