

Combined GPS and NavIC (IRNSS) - GPS(L1) + NavIC(L5) Band Post Processing



Generated using SPIRIT on : 06/06/2024 22:46:51 IST

Input File Name : IITK00IND_R_20230010000_01D_30S_MO.rnx

Reference Ellipsoid : WGS84

Constellation : Combined GPS and NavIC (IRNSS)

Band used : GPS(L1) + NavIC(L5)

Processed data start time : 2023-01-01 00:00:00 UTC

Processed data end time : 2023-01-01 00:14:30 UTC

Data Interval : 30.0 seconds

Processing mode : Single Point Positioning

Processing technique : WLS

Estimated vs. True Coordinates

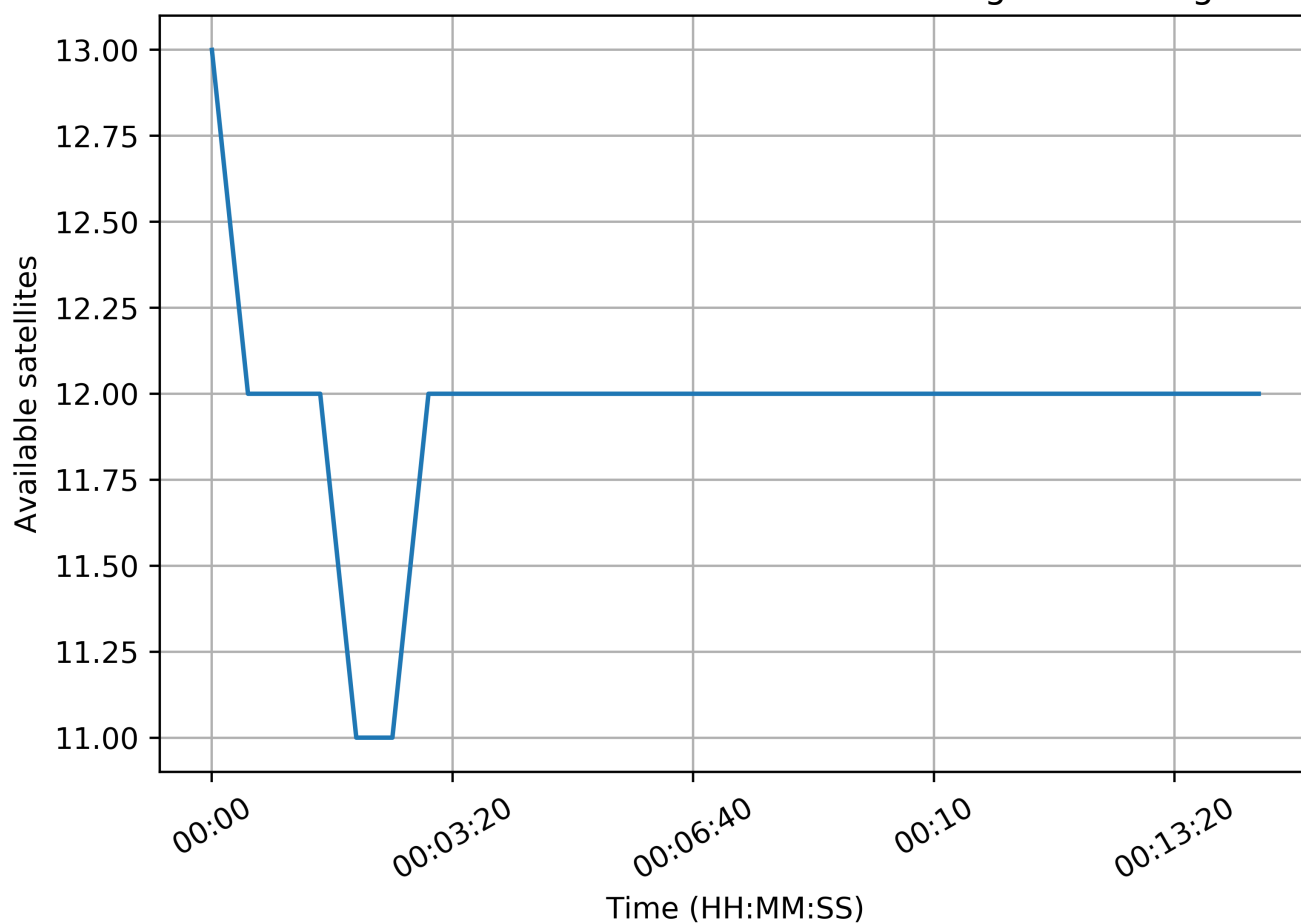
	X (m)	Y (m)	Z (m)
True Coords.	968879.589	5628035.887	2830901.014
Estimated (mean) Coords.	968877.527	5628033.440	2830899.277

Error statistics (in meters)

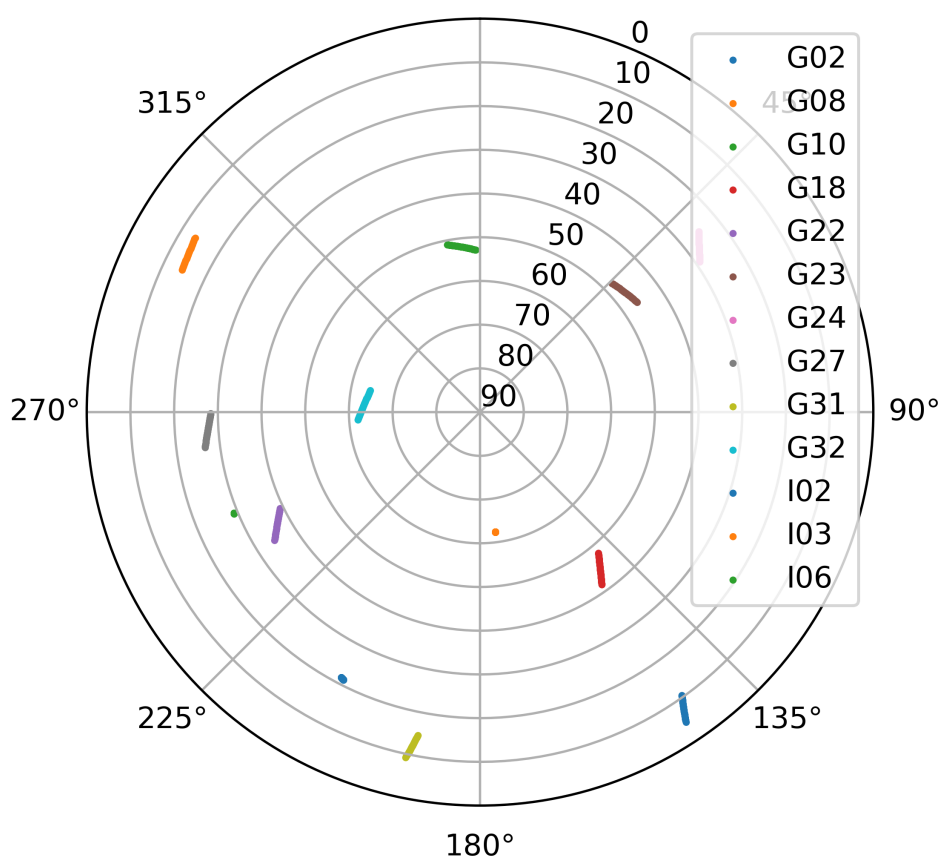
Parameter	Maximum error (3D)	Minimum error (3D)	RMSE (3D)
Position error	10.309	1.377	4.443
	Standard deviation (X)	Standard deviation (Y)	Standard deviation (Z)
Std. Dev	0.609	2.250	1.024
	Semi Major axis	Semi Minor axis	
2 sigma error ellipse	4.638	0.984	
	Radius		
Circular Error Probable	1.766		



Number of available satellites - Mask Angle = 10 deg



Sky Plot of Satellites



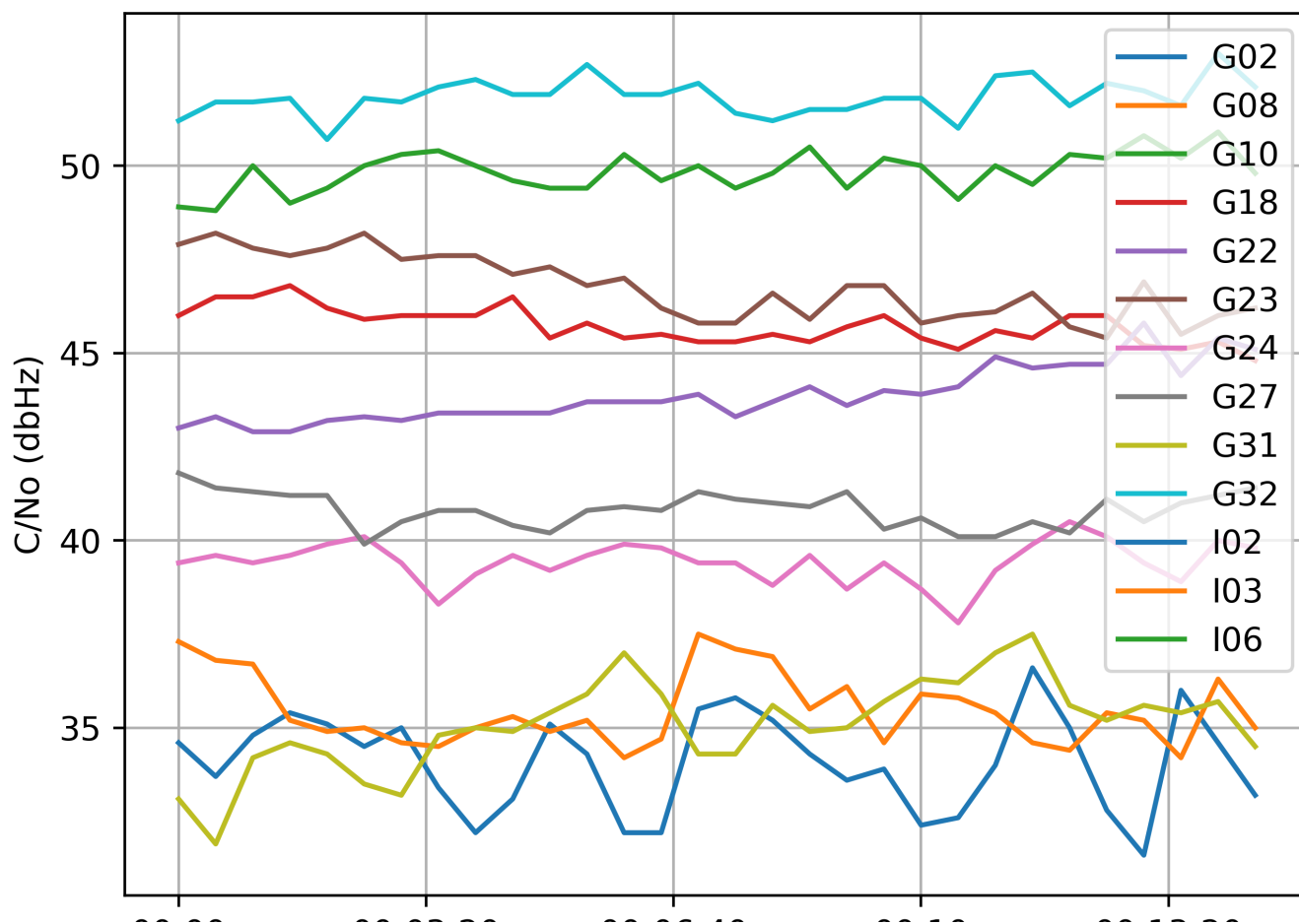
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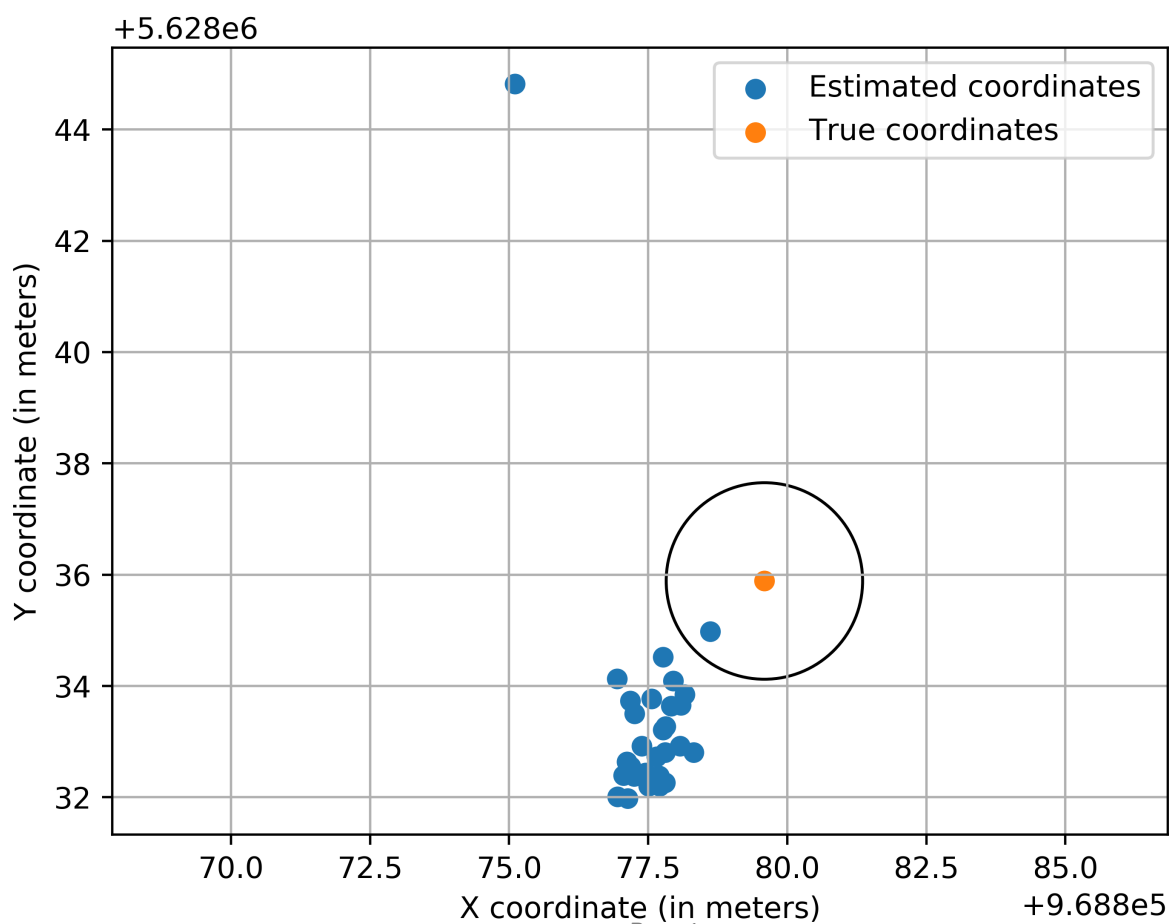
	Average C/No - L1 (dBHz)	Maximum C/No - L1 (dBHz)	Minimum C/No - L1 (dBHz)	Std. Dev C/No - L1 (dBHz)
G02	34.09	36.6	31.6	1.28
G08	35.47	37.5	34.2	0.94
G10	49.84	50.9	48.8	0.53
G18	45.72	46.8	44.8	0.48
G22	43.89	45.8	42.9	0.74
G23	46.75	48.2	45.4	0.84
G24	39.42	40.5	37.8	0.56
G27	40.82	41.8	39.9	0.46
G31	35.08	37.5	31.9	1.19
G32	51.84	53.0	50.7	0.48
I02	0.0	0.0	0.0	0.0
I03	0.0	0.0	0.0	0.0
I06	0.0	0.0	0.0	0.0



C/No - Band L1

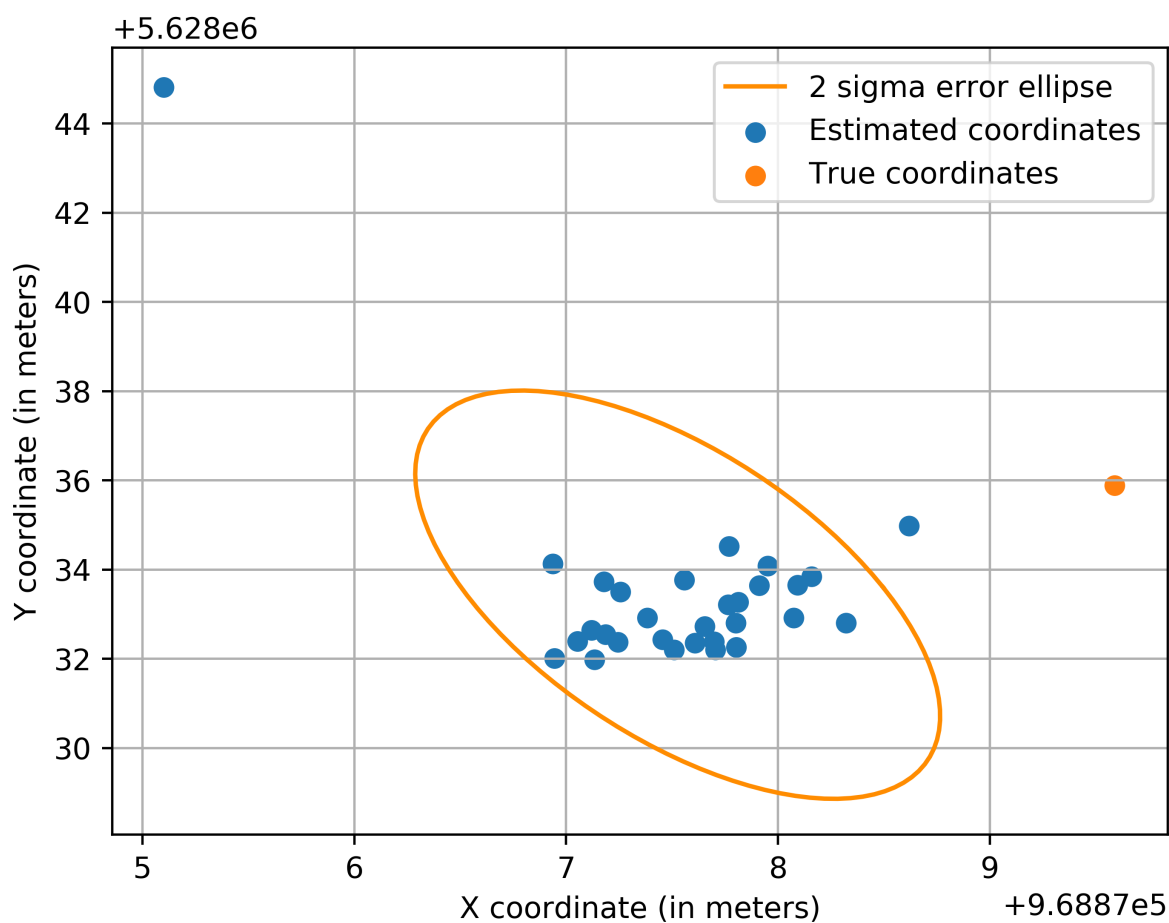


Scatter plot and CEP error plot

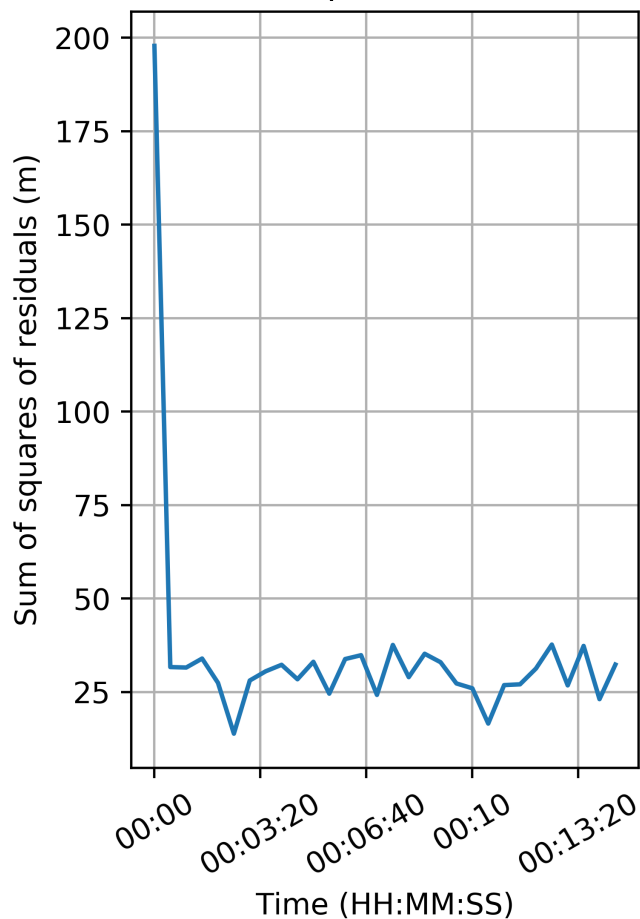




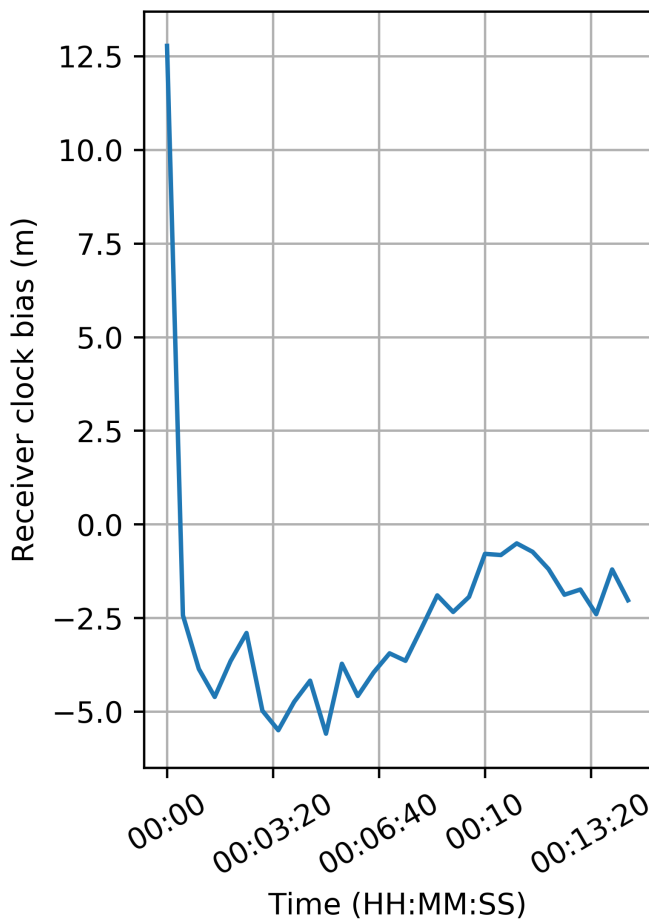
Scatter plot and error ellipse for estimated coordinates



Sum of squared residuals

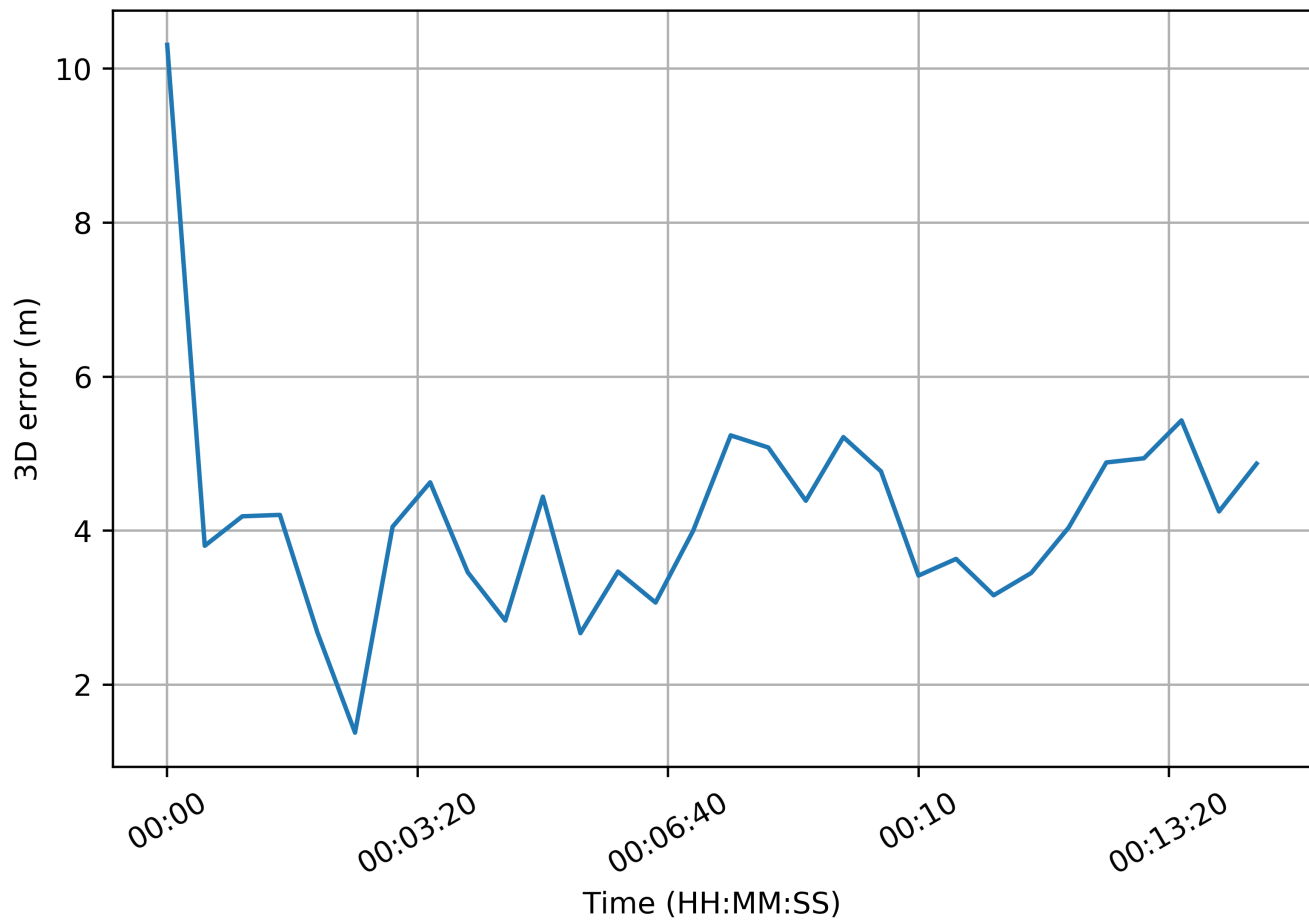


Estimated receiver clock bias





3D position error with time



Histogram plot of error

