

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



Generated using SPIRIT on : 18/06/2024 17:02:17 IST

Input File Name : IITK00IND_R_20241680000_01D_30S_MO.rnx

Reference Ellipsoid : WGS84

Constellation : Combined GPS and NavIC (IRNSS)

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

Processed data start time : 2024-06-16 00:00:00 UTC

Processed data end time : 2024-06-16 00:09:30 UTC

Data Interval : 30.0 seconds

Processing mode : Single Point Positioning

Processing technique : WLS

Estimated vs. True Coordinates

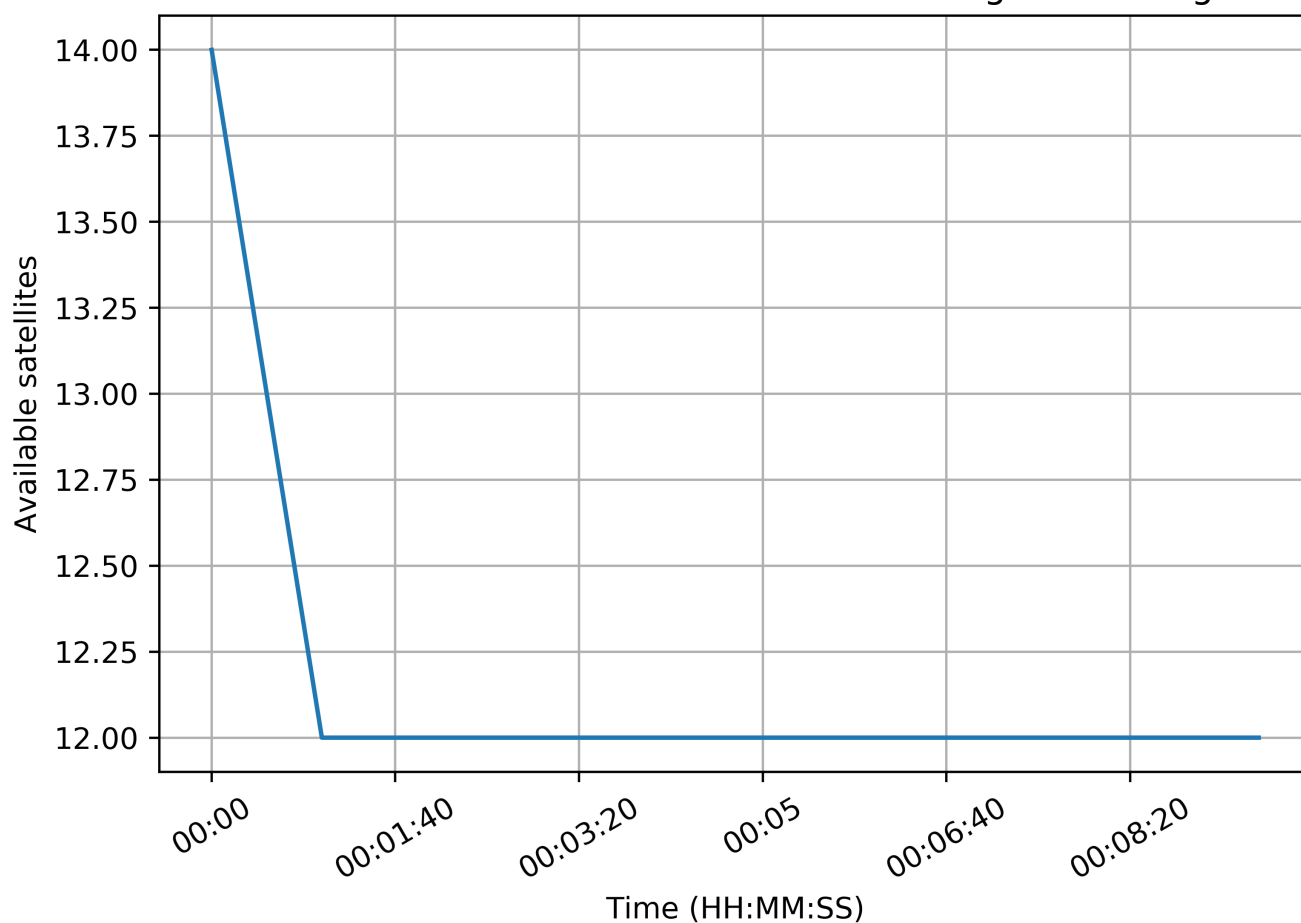
	X (m)	Y (m)	Z (m)
True Coords.	968879.589	5628035.887	2830901.014
Estimated (mean) Coords.	968879.623	5628045.130	2830903.915

Error statistics (in meters)

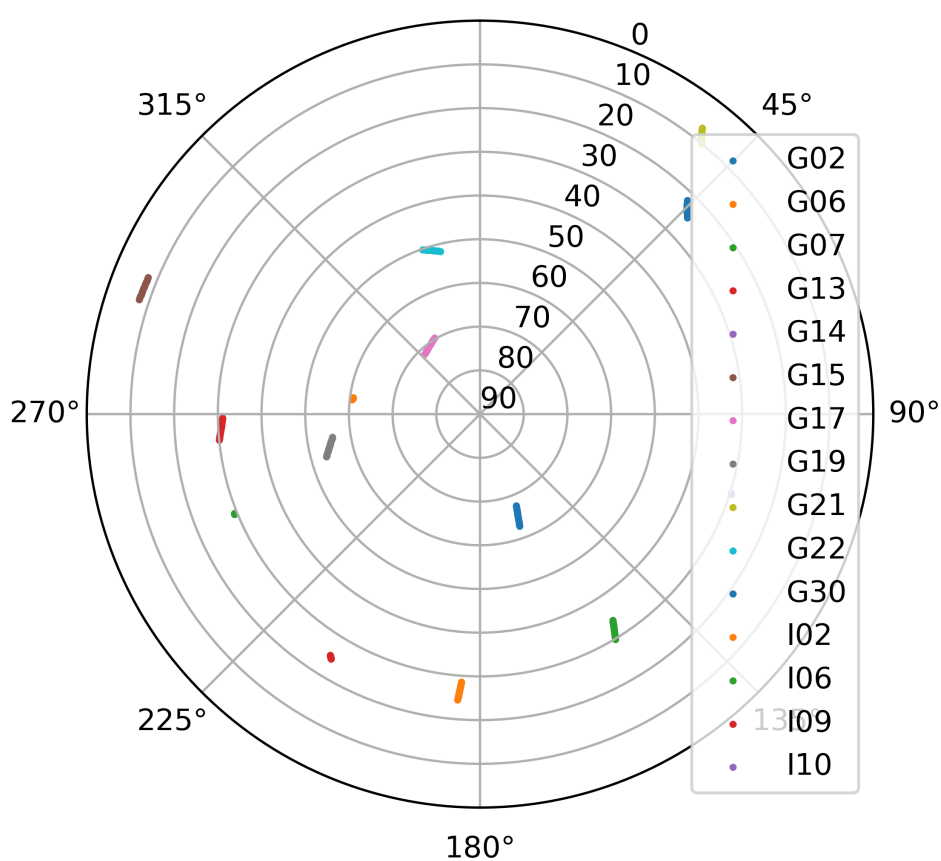
Parameter	Maximum error (3D)	Minimum error (3D)	RMSE (3D)
Position error	34.054	5.974	11.260
	Standard deviation (X)	Standard deviation (Y)	Standard deviation (Z)
Std. Dev	0.993	5.650	0.226
	Semi Major axis	Semi Minor axis	
2 sigma error ellipse	11.765	0.350	
	Radius		
Circular Error Probable	4.164		



Number of available satellites - Mask Angle = 10 deg



Sky Plot of Satellites



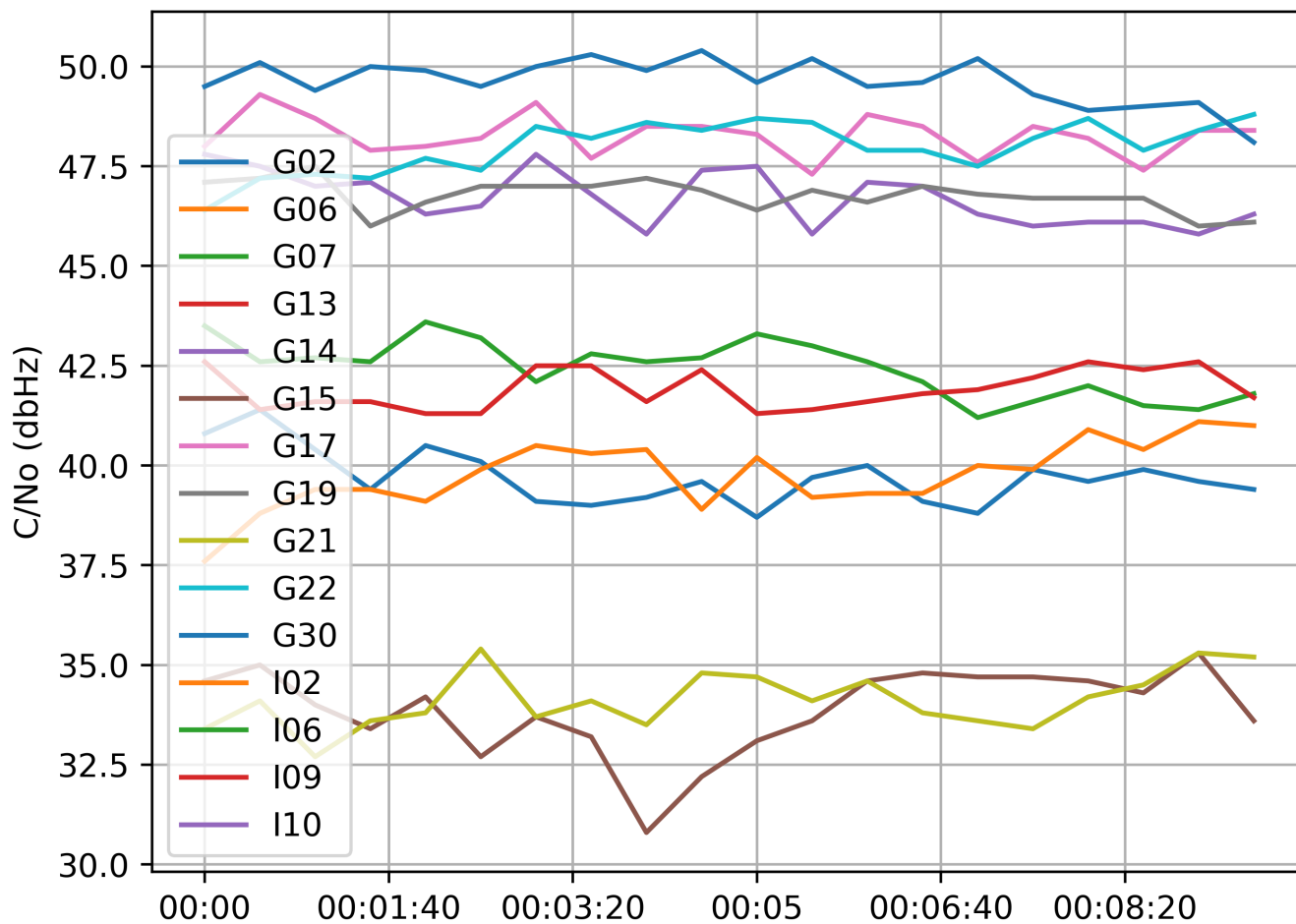
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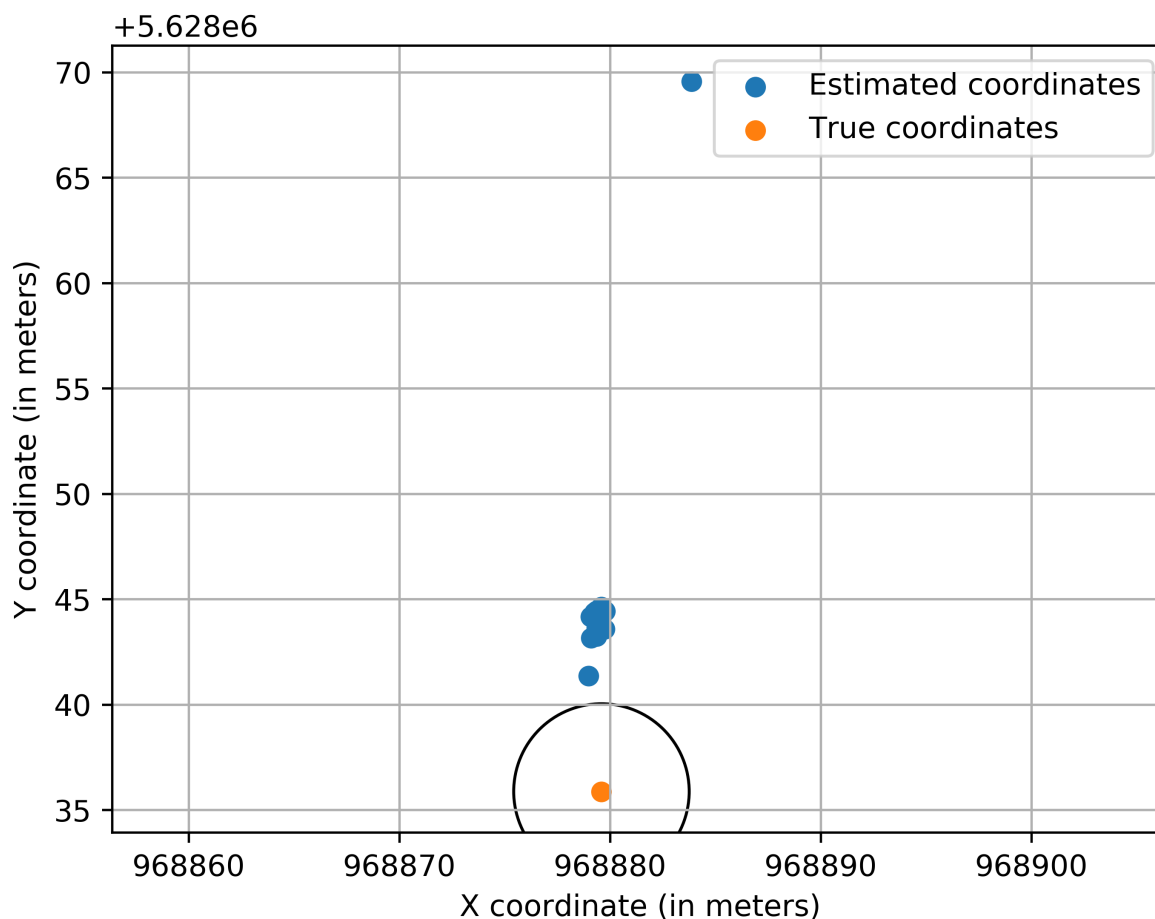
	Average C/No - L1 (dBHz)	Maximum C/No - L1 (dBHz)	Minimum C/No - L1 (dBHz)	Std. Dev C/No - L1 (dBHz)
G02	39.71	41.4	38.7	0.67
G06	39.78	41.1	37.6	0.85
G07	42.44	43.6	41.2	0.69
G13	41.92	42.6	41.3	0.49
G14	46.7	47.8	45.8	0.67
G15	33.86	35.3	30.8	1.06
G17	48.26	49.3	47.3	0.51
G19	46.77	47.5	46.0	0.39
G21	34.12	35.4	32.7	0.7
G22	47.97	48.8	46.4	0.63
G30	49.63	50.4	48.1	0.55
I02	0.0	0.0	0.0	0.0
I06	0.0	0.0	0.0	0.0
I09	0.0	0.0	0.0	0.0
I10	0.0	0.0	0.0	0.0



C/No - Band L1

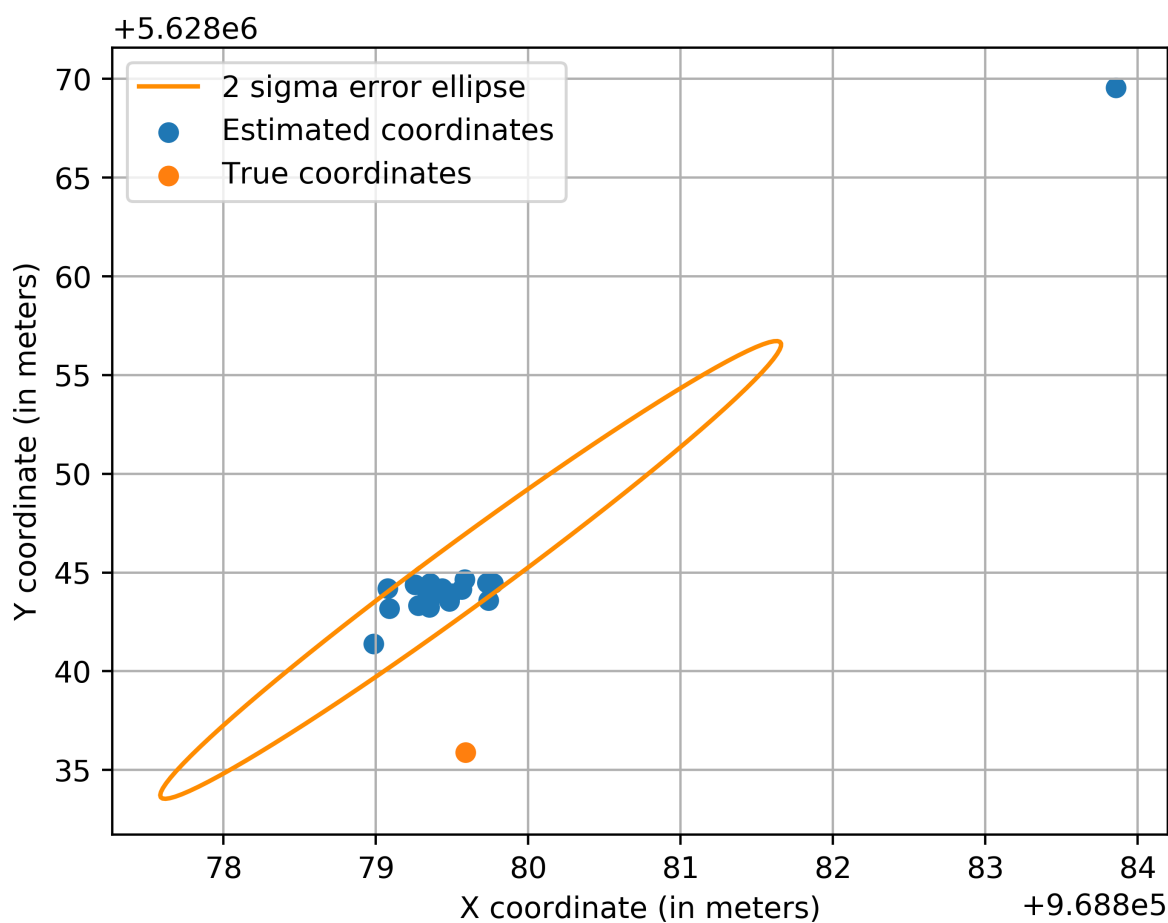


Scatter plot and CEP error plot

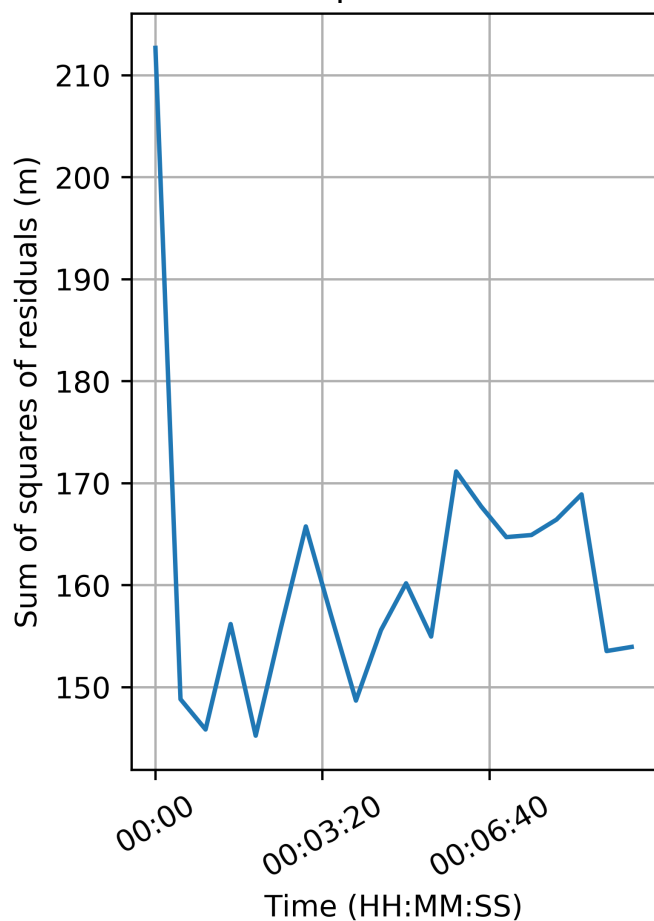




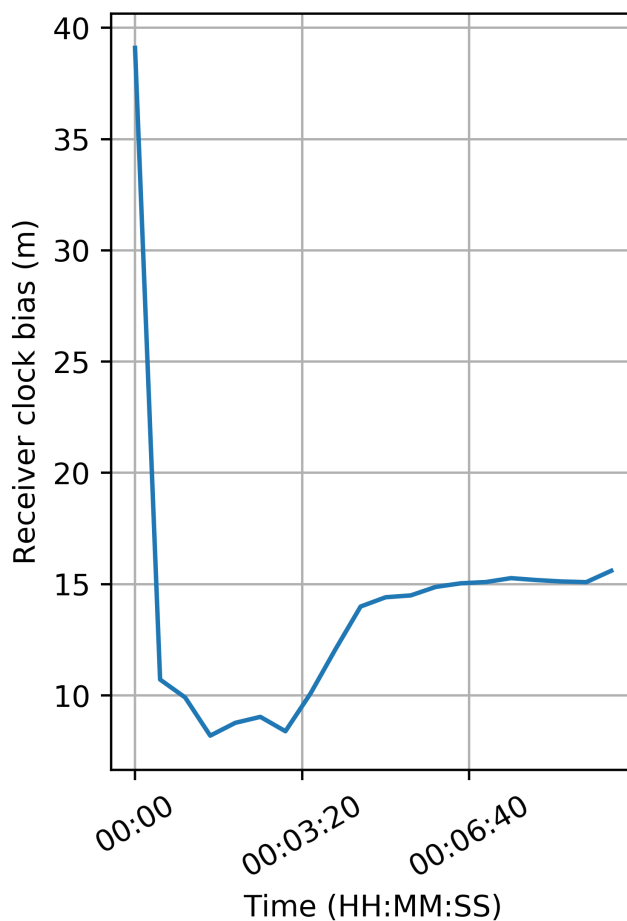
Scatter plot and error ellipse for estimated coordinates



Sum of squared residuals

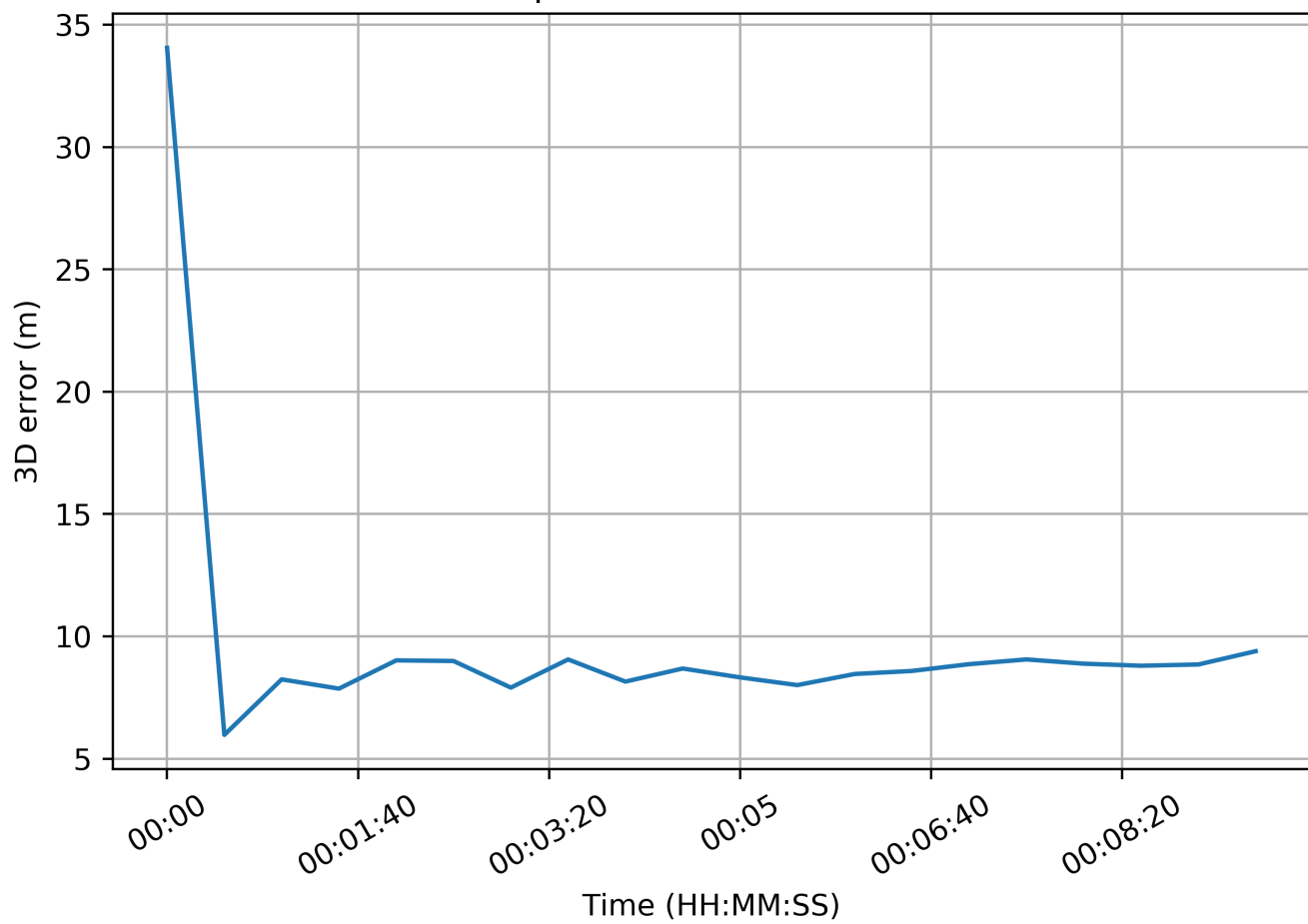


Estimated receiver clock bias





3D position error with time



Histogram plot of error

