



Signal Quality Monitoring (SQM)

Dinesh Manandhar

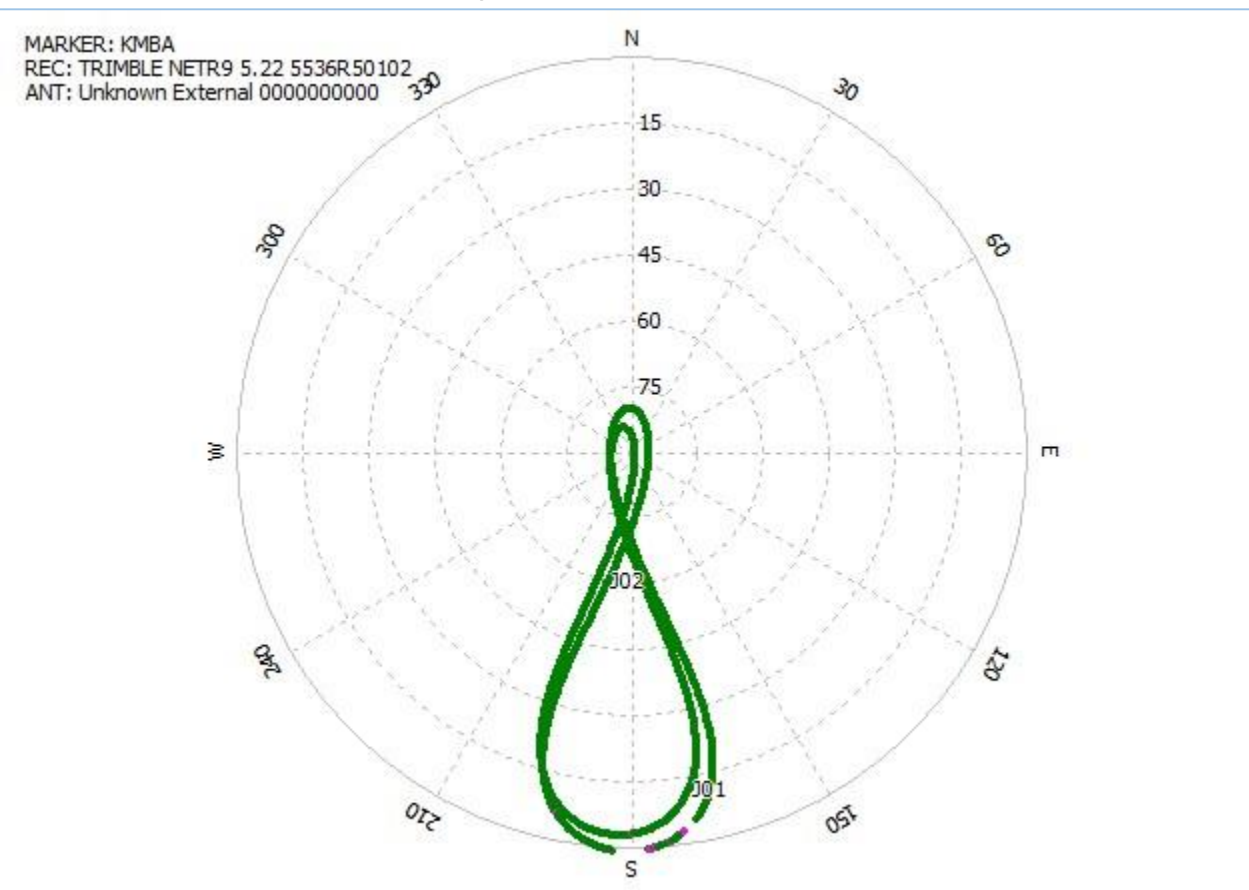
Center for Spatial Information Science

The University of Tokyo

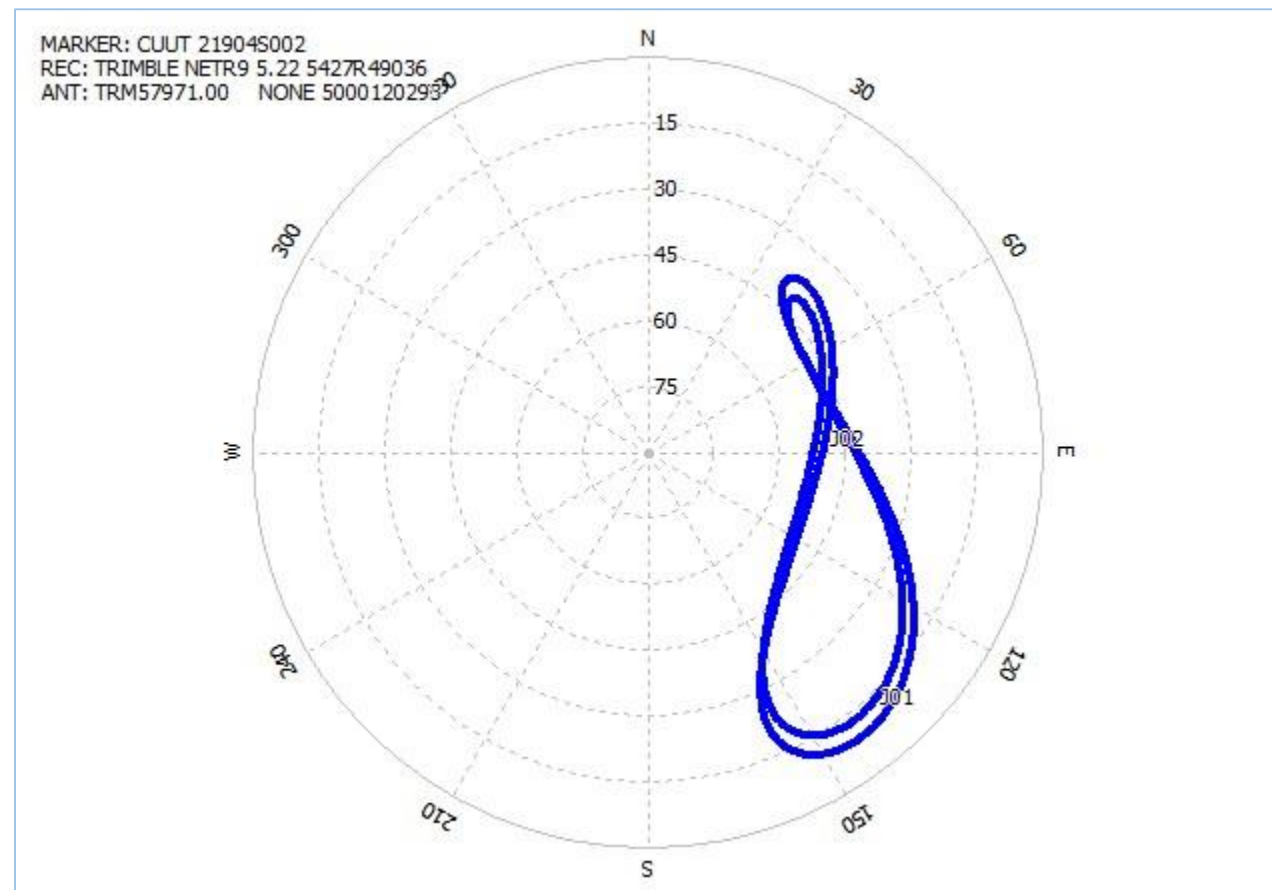
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QZSS Visibility in Tokyo and Bangkok

Tokyo-A Base-Station

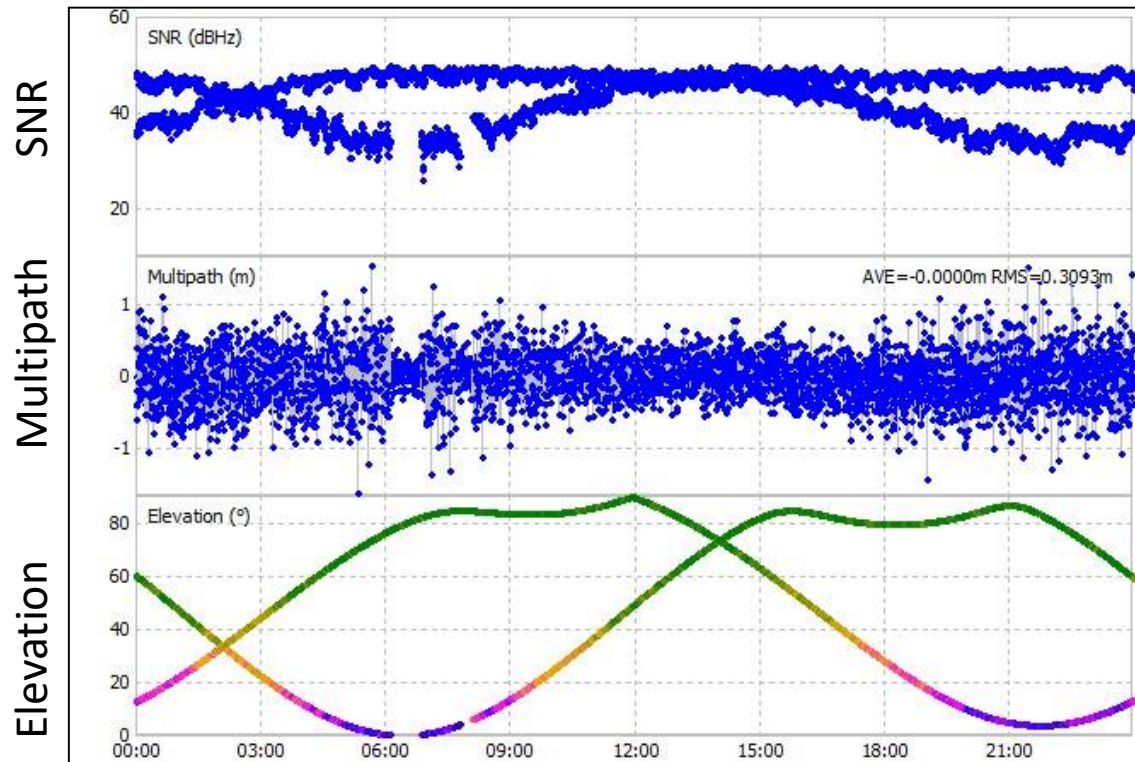


Chula Base-Station

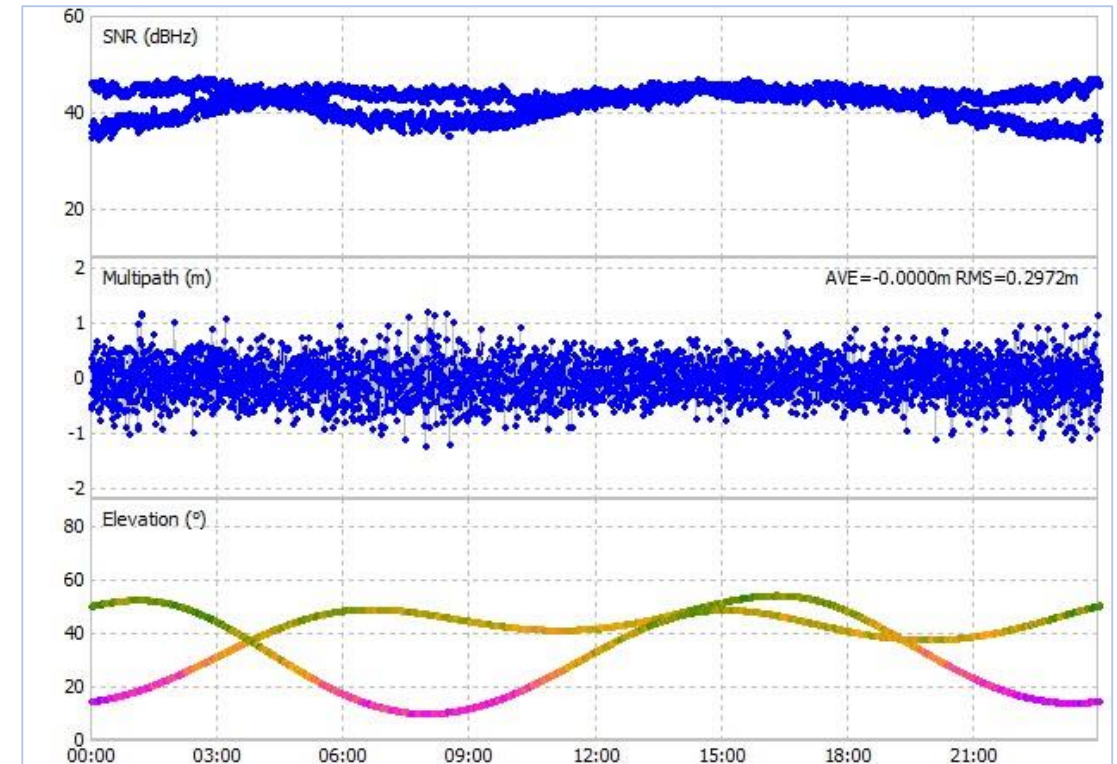


Multipath, SNR and Elevation for QZSS 1 & 2

Tokyo-A Base-Station

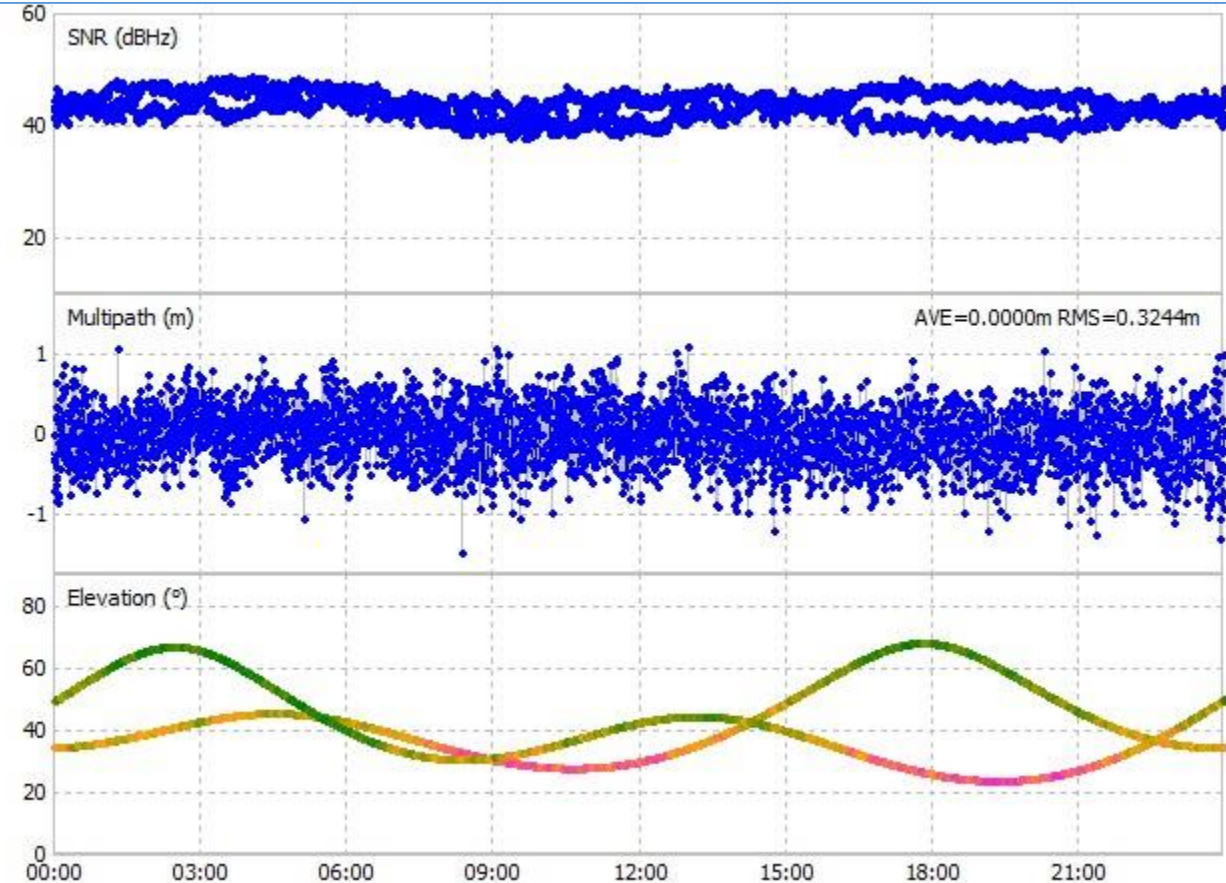
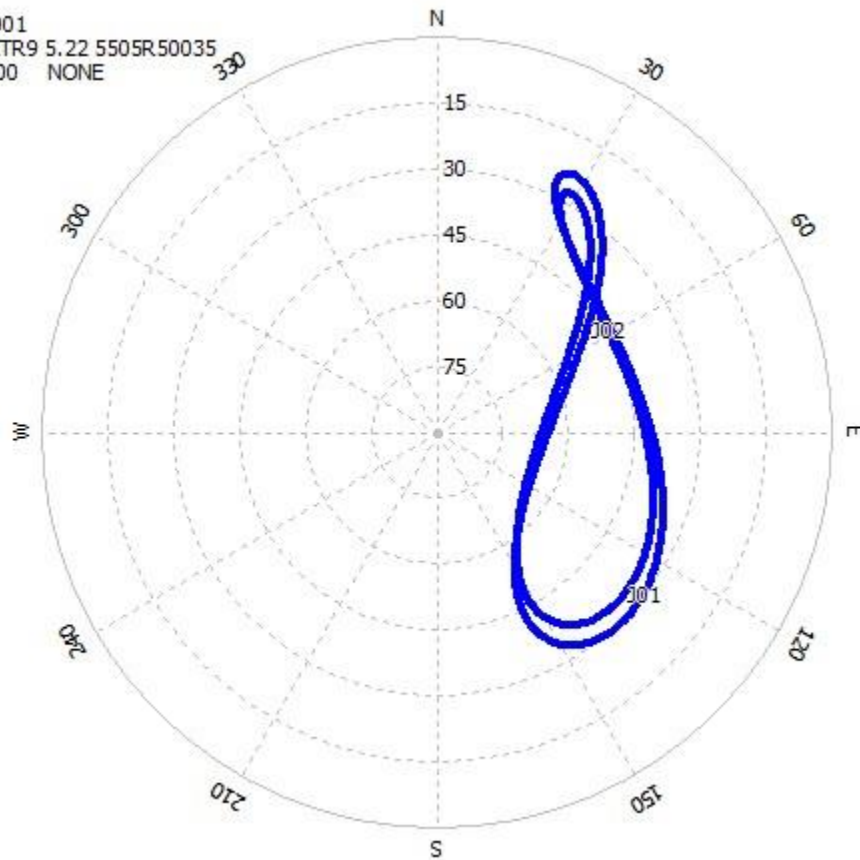


Chula Base-Station



QZSS Visibility in Jakarta

MARKER: CREF0001
REC: TRIMBLE NETR9 5.22 5505R50035
ANT: TRM57971.00 NONE

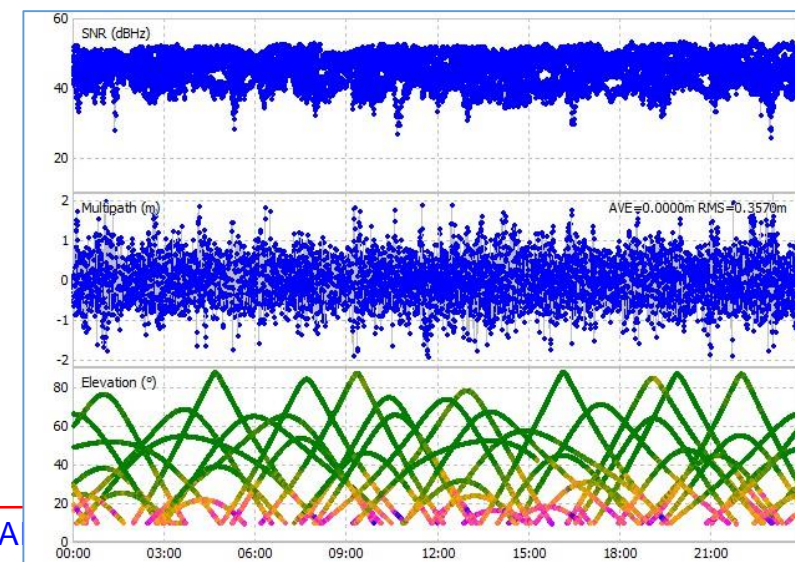
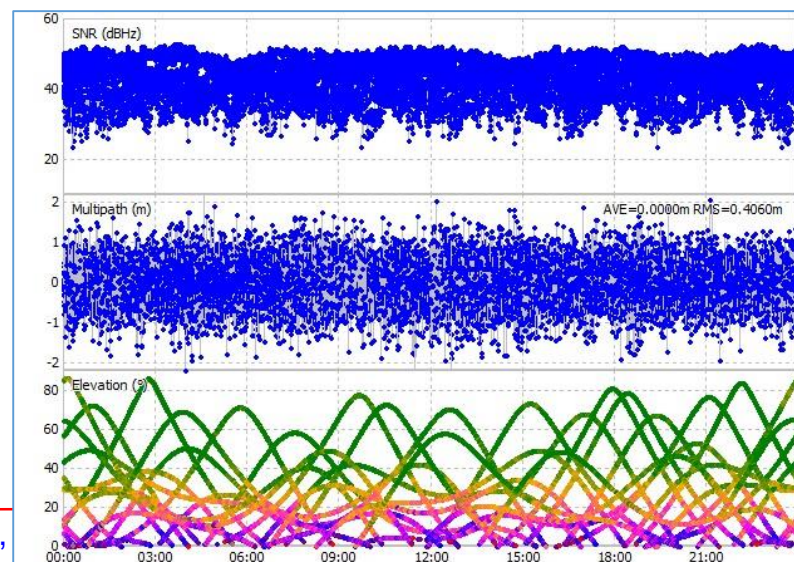
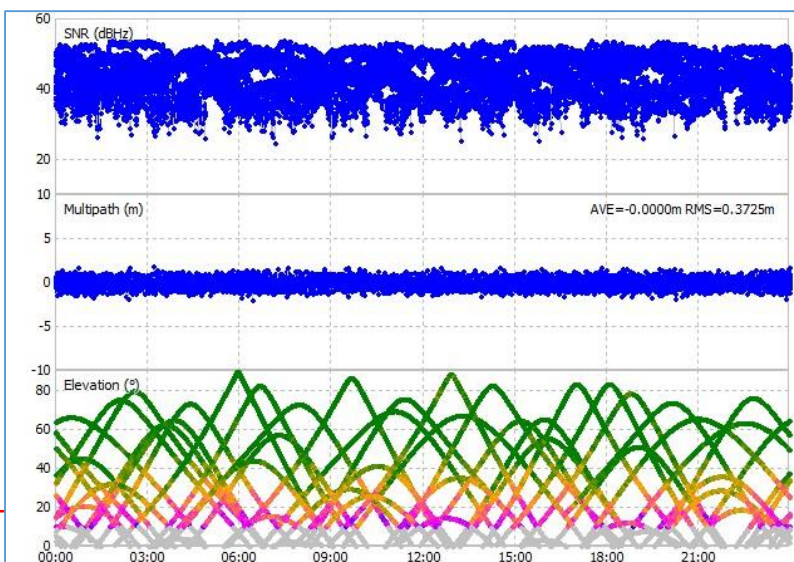
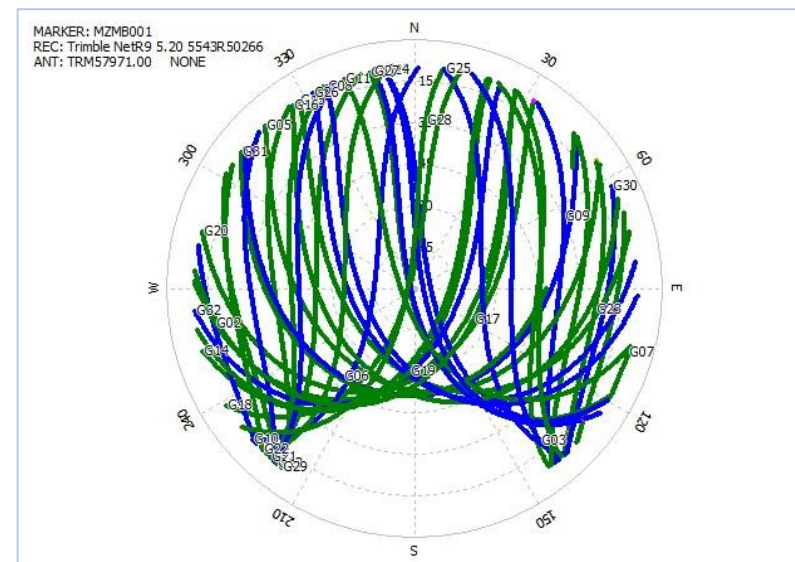
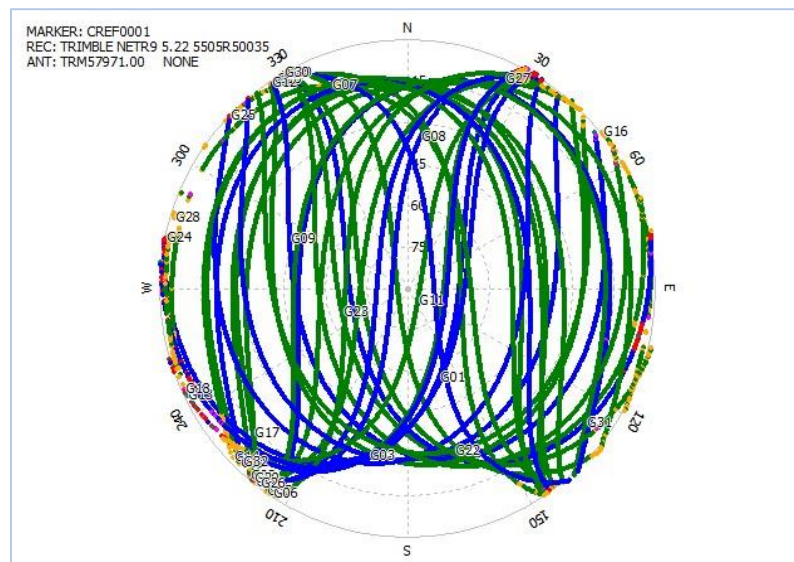
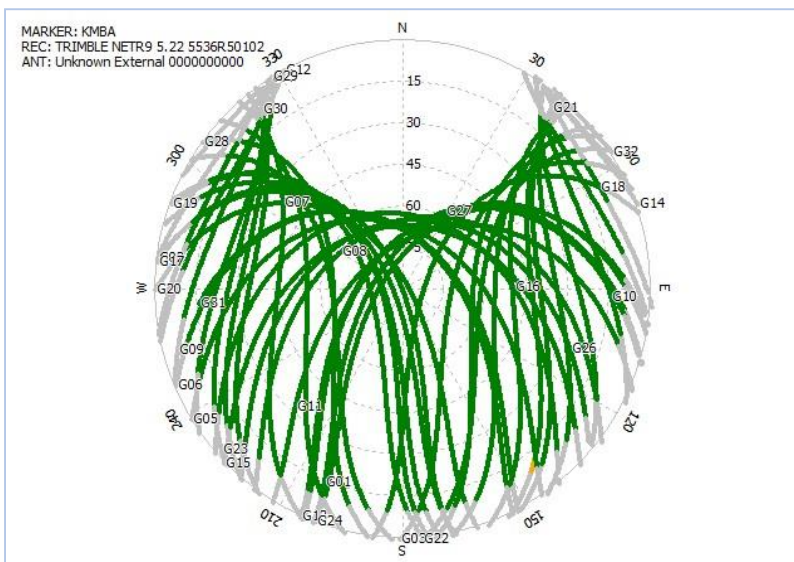


GPS Skyplots: Tokyo, Jakarta and Maputo

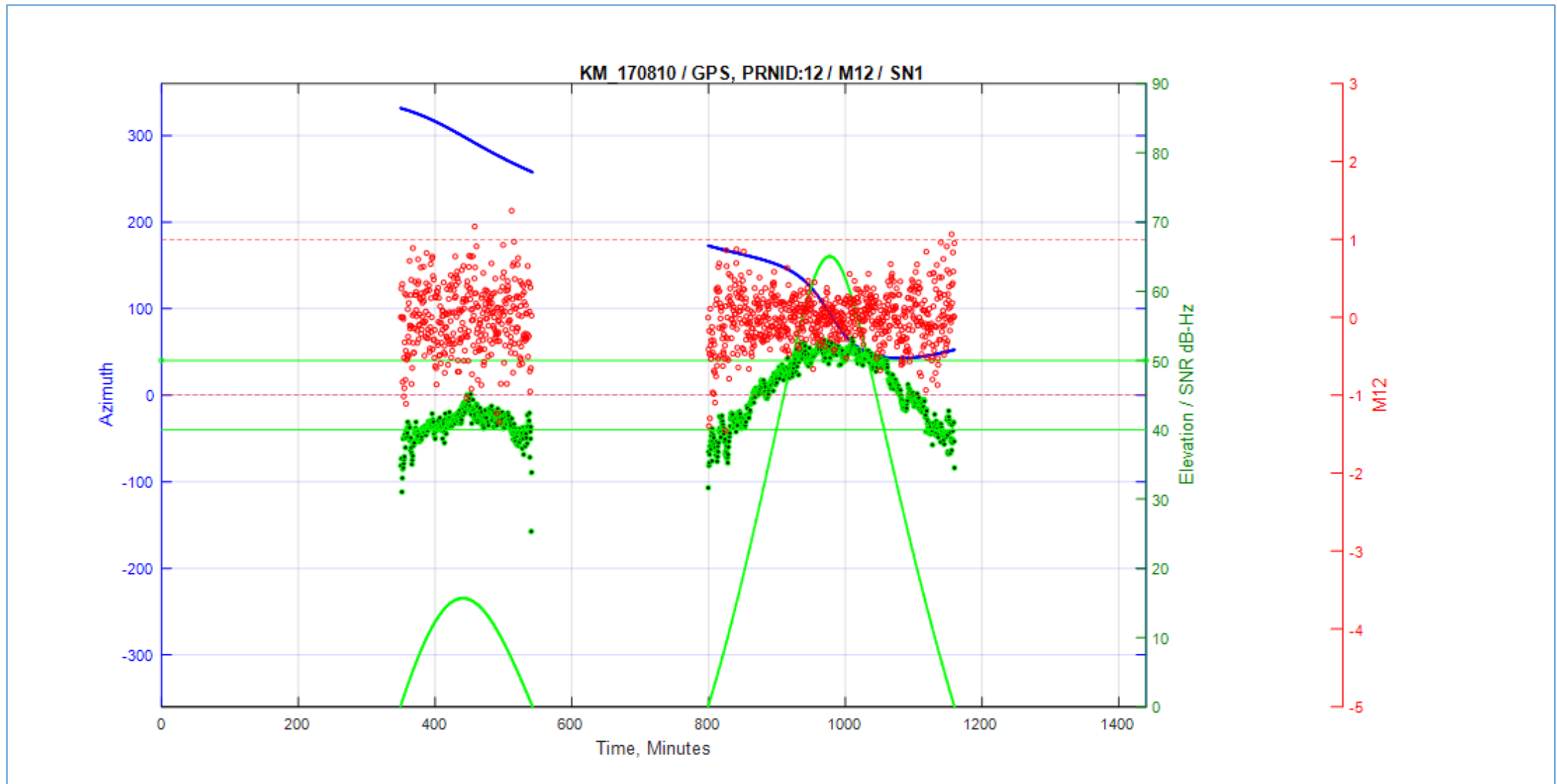
Tokyo-A Base-Station

Jakarta Base-Station

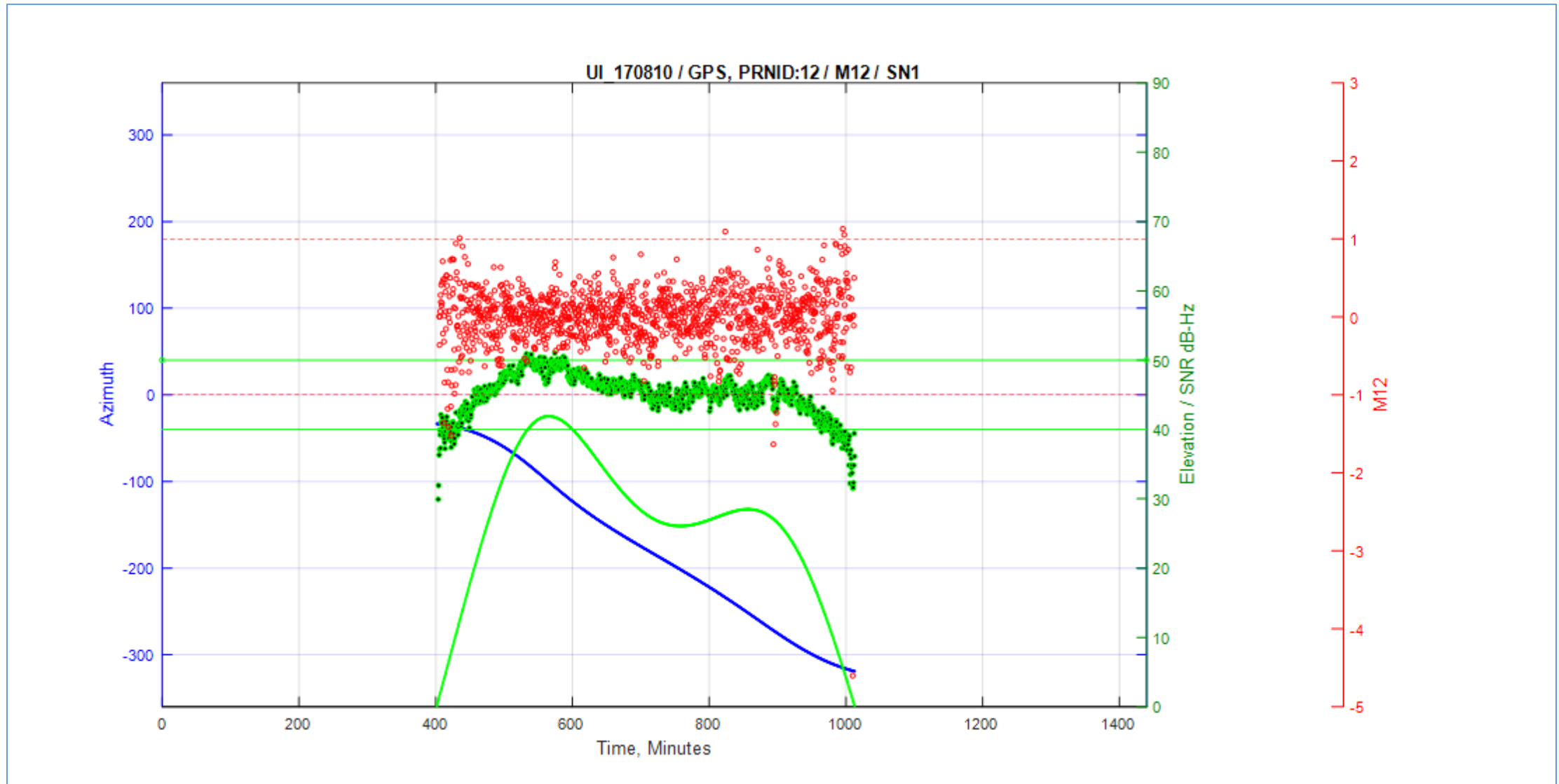
Maputo Base-Station



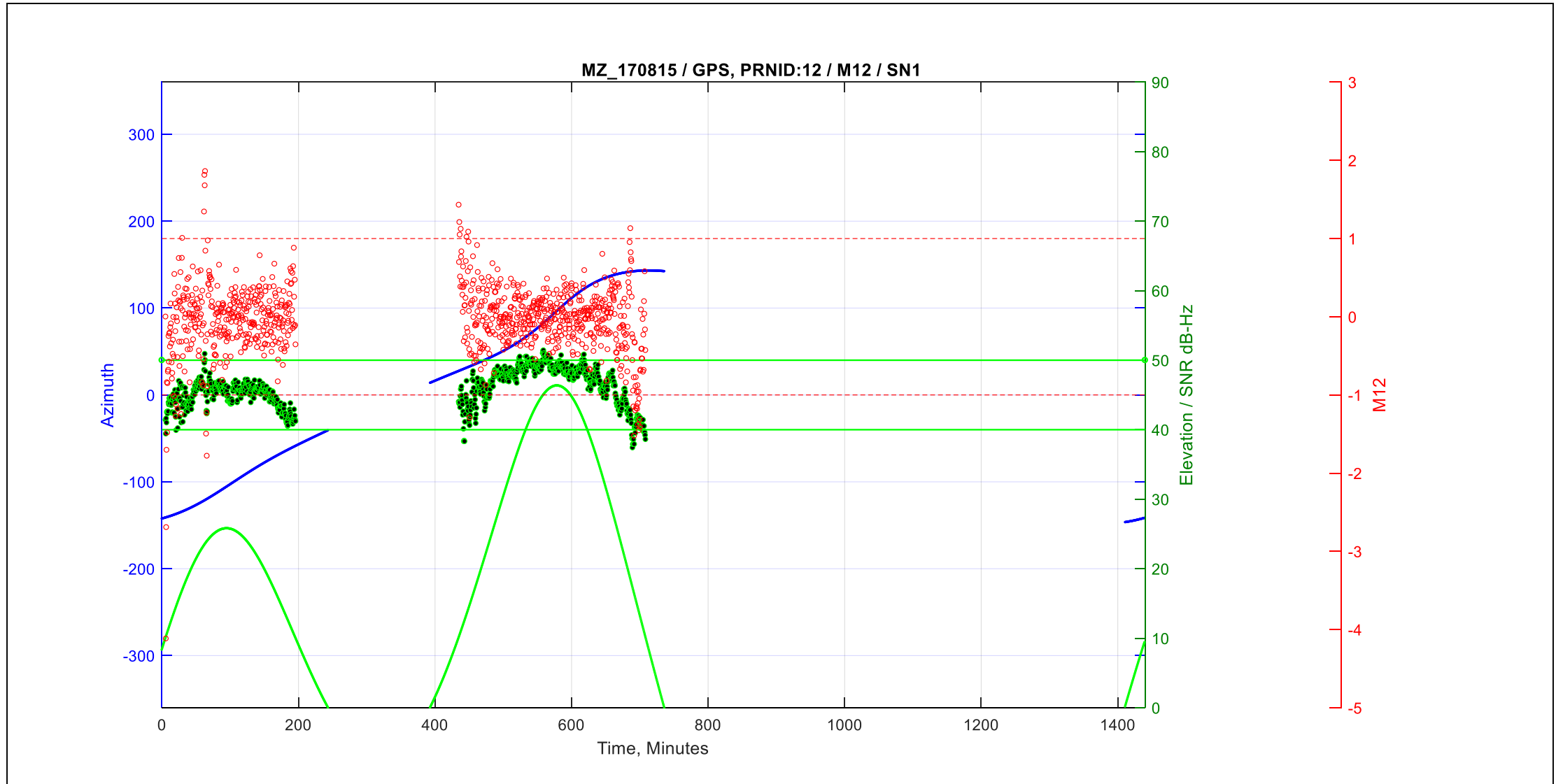
SQM of GPS Signal, Tokyo Base-Station



SQM of GPS Signal, Jakarta Base-Station



SQM of GPS Data, Maputo Base-Station



Mean SNR Values for 24 Hours

ID	SNR of L1 GPS	SNR of L2 GPS	SNR of L5 GPS	SNR of E5B (GALILEO)	SNR of E5(a+b) GALILEO
Jakarta	43.62	34.39	45.24	44.17	47.56
Bangkok	43.79	35.04	45.34	43.54	47.43
Manila	44.20	34.81	46.37	45.47	51.32
Tokyo-A	43.57	34.36	NA	44.12	43.56
Tokyo-B	44.75	36.25	46.53	44.63	48.34
Maputo	45.34	36.84	47.19	45.31	49.03

Unit: dB-Hz

Moving Average Multipath Values for 24 Hours

← GALILEO →

ID	mp 12	mp 21	mp 15	mp 51	mp 17	mp 71	mp 18	mp 81
Jakarta	0.37	0.45	0.33	0.33	0.84	0.89	0.86	0.83
Bangkok	0.30	0.33	0.28	0.29	0.89	0.95	0.90	0.88
Manila	0.52	0.61	0.37	0.57	0.69	0.85	0.71	0.66
Tokyo-A	0.32	0.47	NA	NA	0.99	1.05	1.02	1.02
Tokyo-B	0.39	0.43	0.25	0.33	0.79	0.86	0.80	0.80
Maputo	0.49	0.44	0.32	0.36	0.49	0.57	0.50	0.42

Unit: meter

L7/C7 == phase/pseudorange of E5b

L8/C8 == phase/pseudorange of Galileo E5a+b