

JCET's Daily-updated State-of-the-art SLR-only TRF

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- The ITRF is updated on a nominal timescale of 3-4 years
- The ILRS network is currently upgraded and new sites and systems require accurate coordinates much more often than the ITRF can accommodate
- GGOS' stringent requirements must be met at all times
 - SLR is currently off target by a factor of $\sim 10-20$
- Monitoring the network's quality requires high fidelity coordinates to provide robust estimate of any systematic errors in the hardware
 - The QC service of the ILRS requires sufficiently accurate coordinates to maintain the fidelity of their daily reports

- The ILRS has dedicated Analysis Centers that monitor the quality of the data collected at all sites
- Most QC ACs deliver these reports on a weekly basis, some provide daily reports
- The information provided in these reports is compiled into a “report card” (originally quarterly, now monthly!) that is available online
 - For each site one can find short-term and long-term performance based on their statistics over the past 3-months and 1-year periods respectively

http://ilrs.gsfc.nasa.gov/network/system_performance/global_report_cards/monthly/

DGFI

HITO UNI.

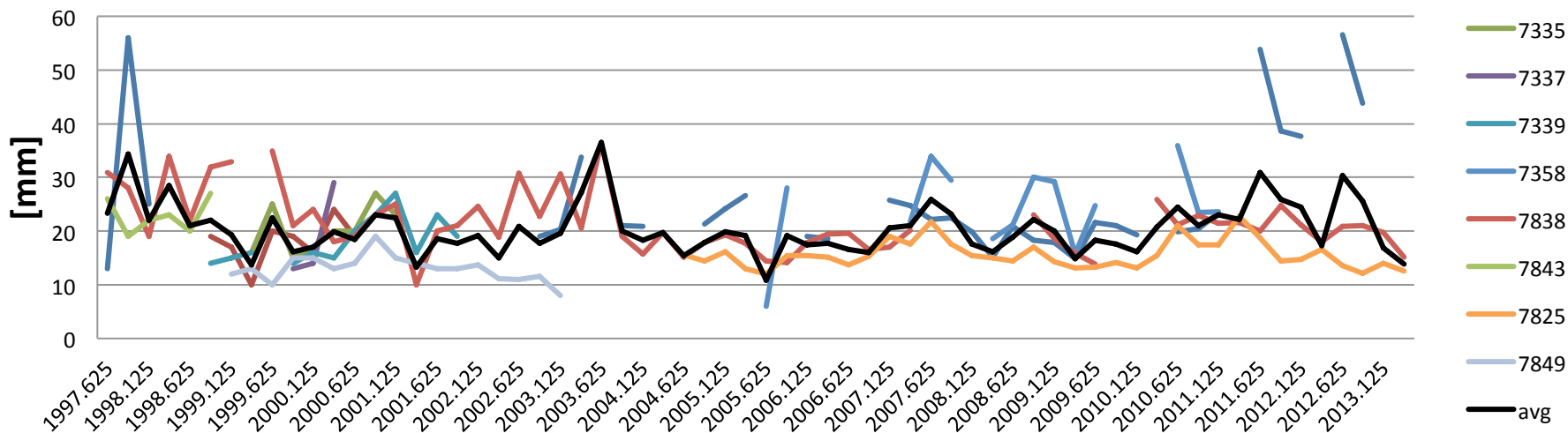
JCET

MCC

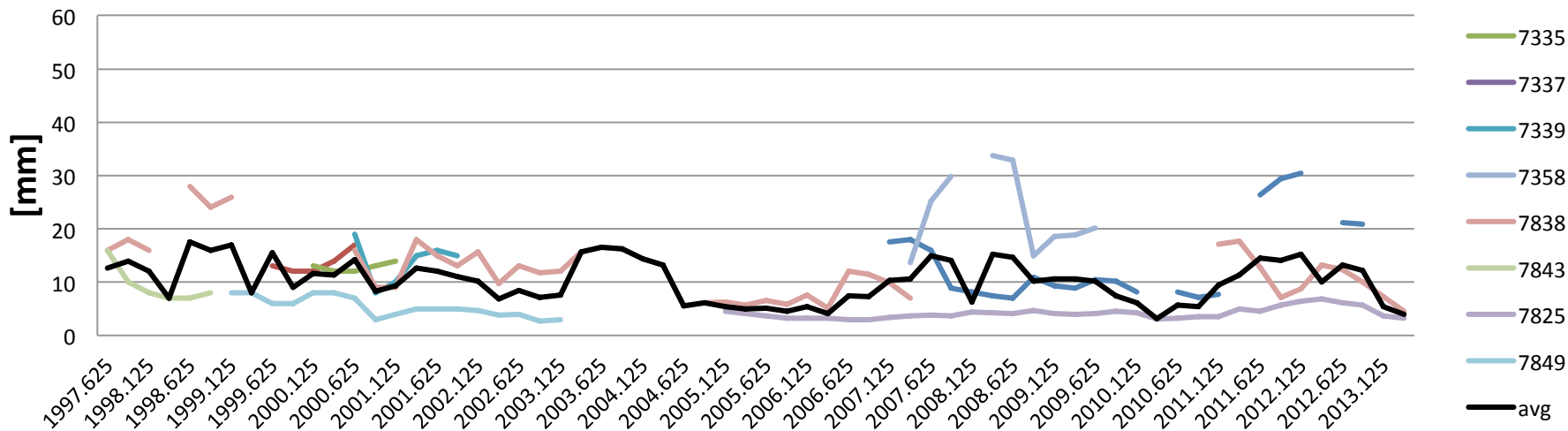
SHAO

Site Information		DGFI Orbital Analysis				Hitotsubashi Univ. Orbital Analysis				JCET Orbital Analysis				MCC Orbital Analysis				SHAO Orbital Analysis			
Station Location	Station Number	LAG NP RMS (mm)	short term (mm)	long term (mm)	% good LAG NP	LAG NP RMS (mm)	short term (mm)	long term (mm)	% good LAG NP	LAG NP RMS (mm)	short term (mm)	long term (mm)	% good LAG NP	LAG NP RMS (mm)	short term (mm)	long term (mm)	% good LAG NP	LAG NP RMS (mm)	short term (mm)	long term (mm)	% good LAG NP
Baseline		10.0	20.0	10.0	95	10.0	20.0	10.0	95	10.0	20.0	10.0	95	10.0	20.0	10.0	95	10.0	20.0	10.0	95
Yarragadee	7090	3.7	15.6	1.8	100.0	2.0	7.5	1.9	100.0	3.2	14.8	2.8	99.8	2.4	16.6	2.9	98.3	1.7	15.2	2.0	91.9
Changchun	7237	4.2	26.7	4.7	99.1	3.1	25.2	2.8	99.7	3.1	28.6	3.5	96.8	4.1	30.9	10.5	96.4	3.1	32.3	10.0	90.3
Mount_Stromlo_2	7825	4.2	14.1	4.1	100.0	3.1	8.1	2.0	100.0	3.5	15.2	3.7	99.9	4.1	12.9	3.3	95.4	2.7	12.9	3.1	95.1
Zimmerwald_532	7810	3.1	11.6	7.8	99.9	1.4	5.4	3.1	99.8	2.1	13.0	7.8	99.9	2.6	13.6	3.2	98.3	1.5	11.2	3.7	95.0
Wetzell	8834	3.7	13.1	3.8	100.0	2.5	8.6	2.2	100.0	3.1	12.4	3.9	99.4	2.6	11.5	4.2	96.2	1.5	12.3	5.2	94.2
Graz	7839	2.5	11.2	3.8	100.0	0.8	4.4	1.8	100.0	1.9	11.7	4.9	98.5	1.9	12.0	4.5	98.0	0.7	9.3	2.5	95.5
Matera_MLRO	7941	2.6	12.0	4.7	99.9	1.2	6.0	2.6	100.0	2.1	12.4	4.4	100.0	1.8	14.3	3.7	99.5	2.1	32.0	3.6	97.6
Greenbelt	7105	4.5	12.9	4.2	99.9	2.2	6.6	1.7	99.8	3.3	11.5	2.8	99.2	2.5	16.6	5.5	97.0	2.3	13.5	3.3	91.0
Herstmonceux	7840	2.7	9.8	3.5	100.0	1.4	5.4	1.5	100.0	1.7	11.6	2.9	100.0	2.6	8.9	2.7	96.9	1.7	11.4	2.5	97.2
Monument_Peak	7110	5.8	17.2	5.3	99.7	3.8	12.3	2.0	99.7	5.7	20.5	4.9	98.0	3.9	20.5	3.9	94.4	3.5	14.6	6.2	91.0
Hartebeesthoek	7501	4.8	18.6	5.0	99.9	2.8	8.4	3.2	99.9	3.8	18.7	5.4	98.8	3.3	23.5	4.6	96.3	2.5	19.0	6.2	92.0
San_Juan	7406	15.9	44.1	9.5	97.5	5.6	33.0	10.7	96.0	7.2	33.0	8.3	79.2	7.4	30.5	9.0	91.5	8.7	32.3	11.9	90.4
Potsdam_3	7841	3.9	10.7	4.2	100.0	1.7	7.7	2.7	99.6	2.7	10.9	5.0	99.4	2.1	7.4	2.9	98.2				
Grasse_MEO	7845	4.2	14.1	3.1	100.0	2.6	9.6	3.1	100.0	3.5	13.3	2.6	100.0	3.1	12.9	3.3	97.5	2.1	14.0	2.9	94.3
Arequipa	7403	5.6	22.6	11.8	99.5	2.4	22.6	18.4	99.2	5.0	25.8	21.5	97.4	3.6	16.6	6.8	96.0	4.2	18.7	6.7	89.5
Shanghai_2	7821	8.0	44.8	19.7	99.4	3.8	43.9	18.8	100.0	4.1	46.2	24.6	94.1	5.0	46.6	21.5	97.5	2.6	31.5	19.6	95.0
Haleakala	7119	7.0	22.3	9.0	98.3	3.6	11.3	2.7	98.1	5.3	15.1	4.8	96.7	5.8	27.0	14.3	96.6	5.0	43.1	20.1	92.5
Simosato	7838	6.5	27.7	11.3	100.0	3.1	17.7	6.8	99.8	6.1	19.0	8.0	97.1	4.5	19.1	9.9	98.9	6.1	18.4	6.2	90.6
McDonald	7080	5.2	14.9	5.3	99.7	2.9	7.8	3.5	99.7	4.2	14.1	3.6	99.3	3.4	15.9	6.2	93.2	2.5	15.1	4.2	96.5
Kiev	1824	18.3	42.8	26.5	84.1	12.6	49.7	28.3	89.1	4.9	30.1	16.7	47.8	1271.8	44.6	33.8	87.8				
Katziwey	1893	15.8	15.7	6.4	98.9	9.8	17.8	3.5	97.9	7.0	20.5	6.5	79.9	12.1	18.8	10.4	86.3	9.8	18.6	13.0	92.8

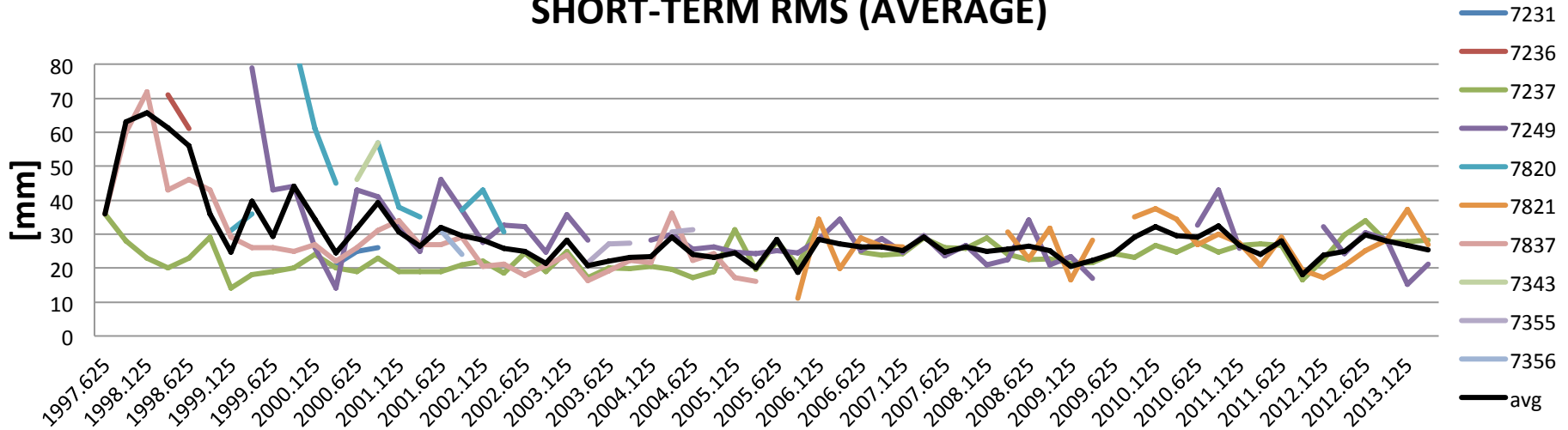
SHORT-TERM RMS (AVERAGE)



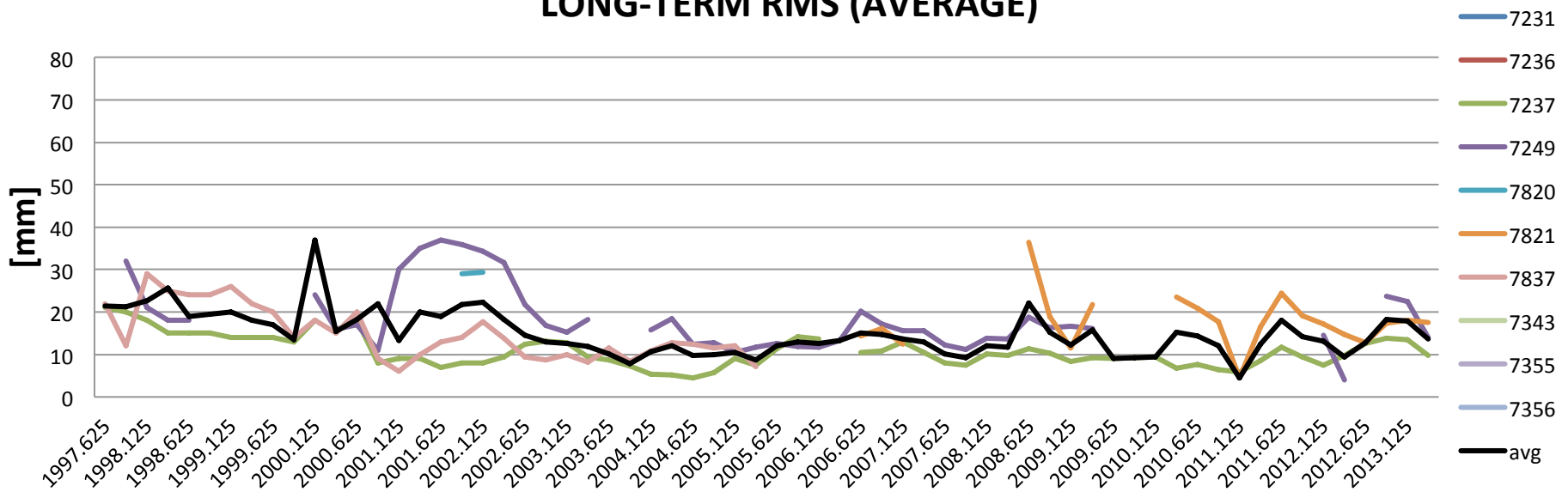
LONG-TERM RMS (AVERAGE)

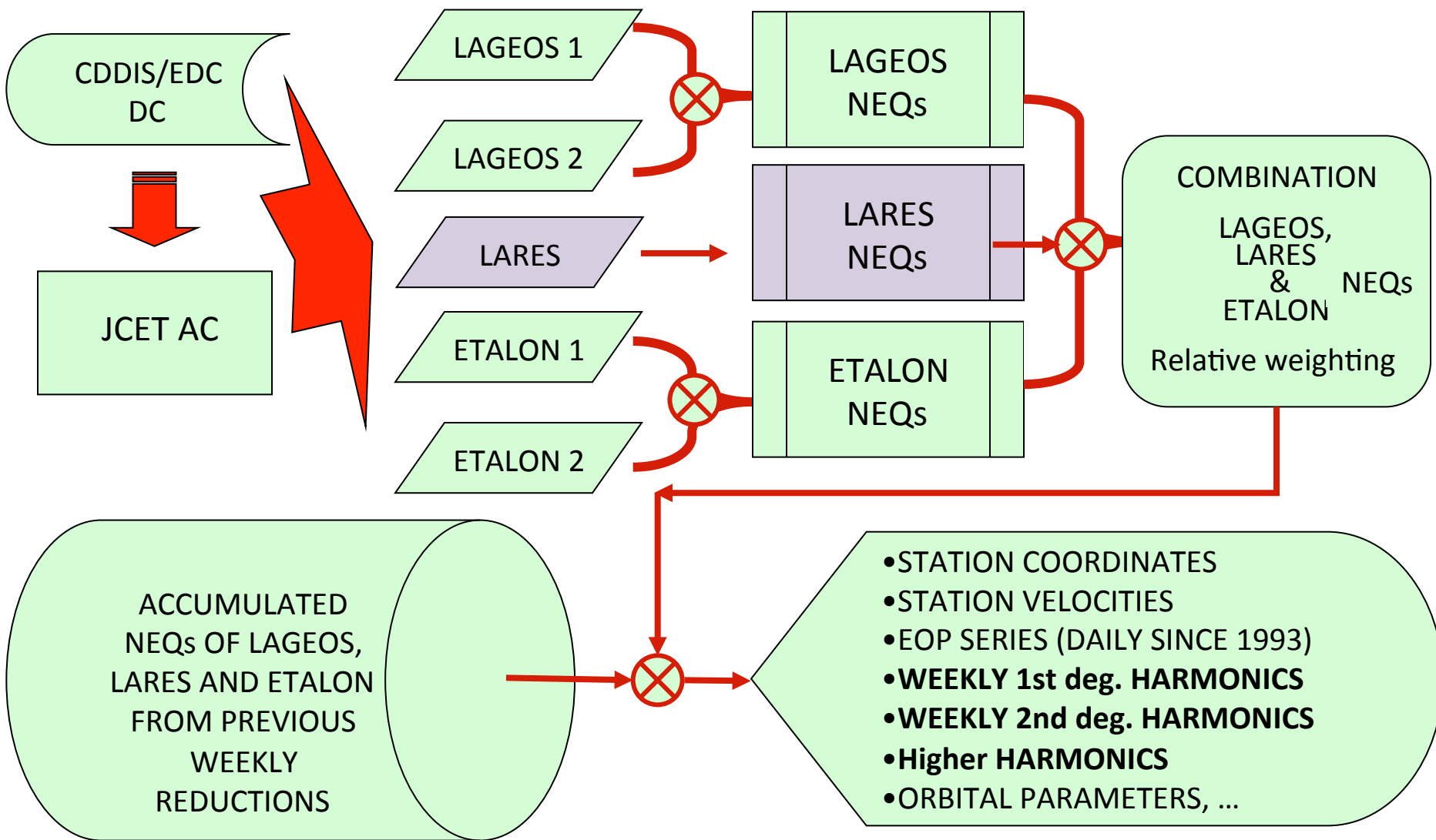


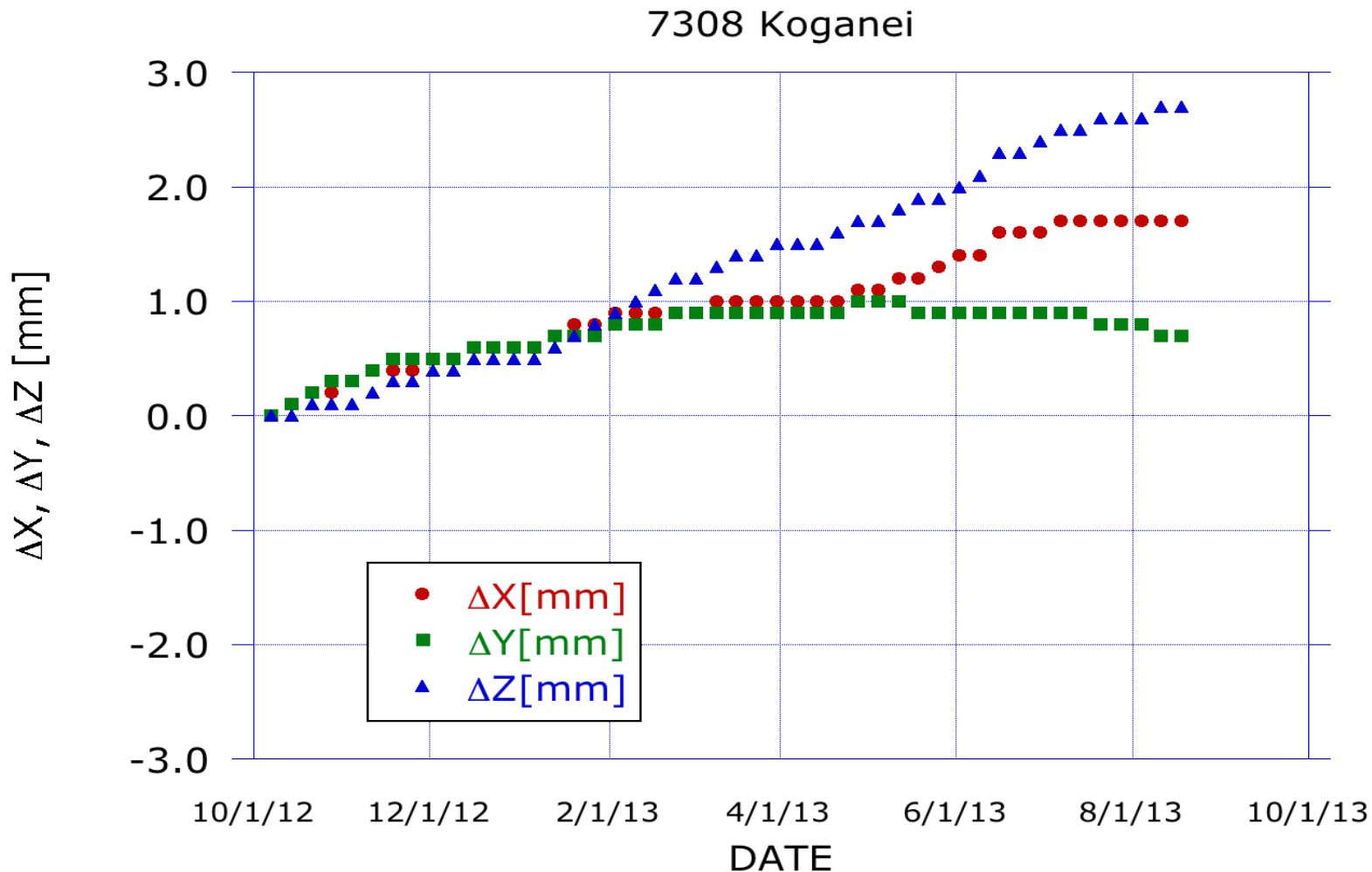
SHORT-TERM RMS (AVERAGE)

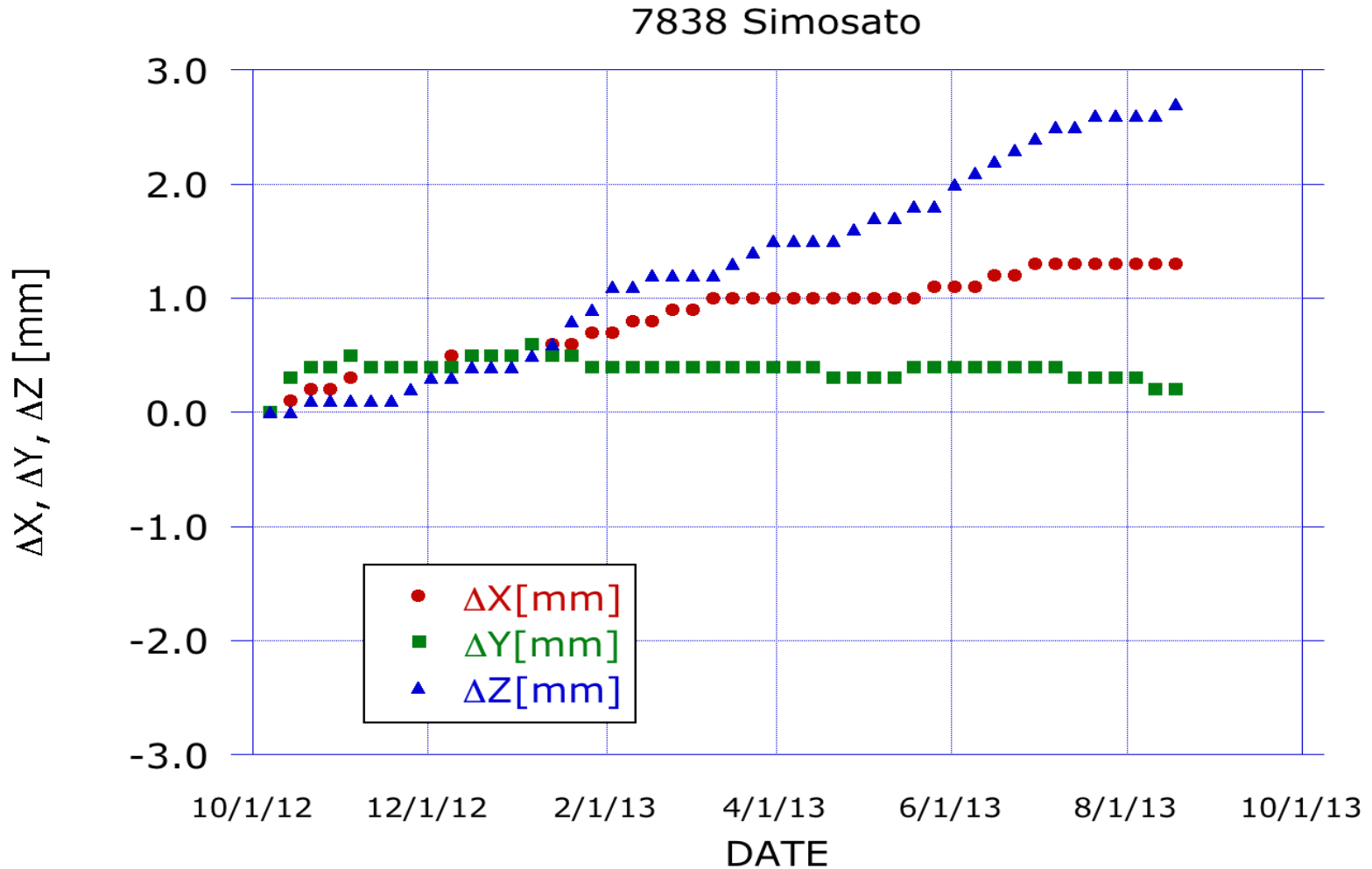


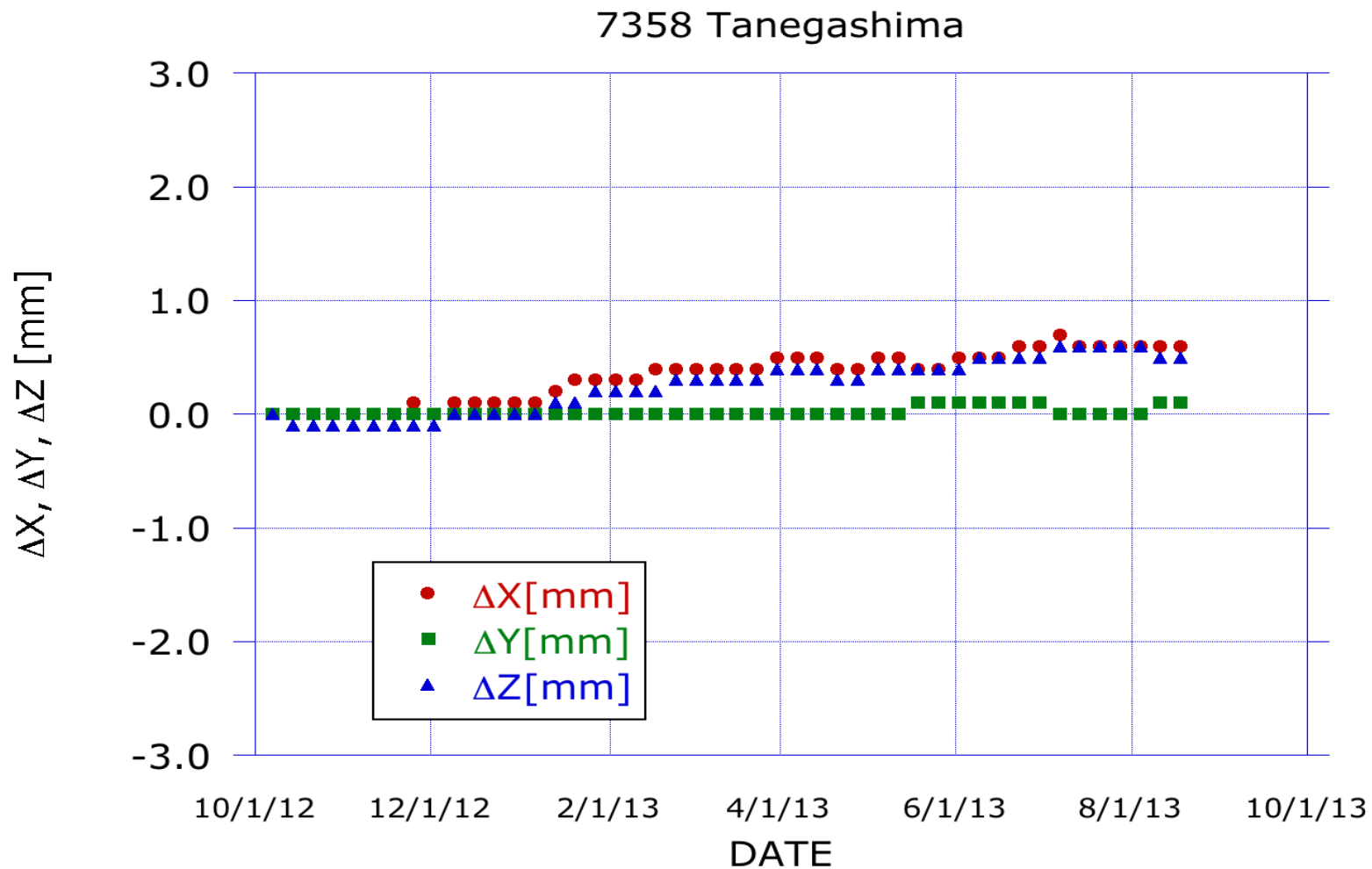
LONG-TERM RMS (AVERAGE)

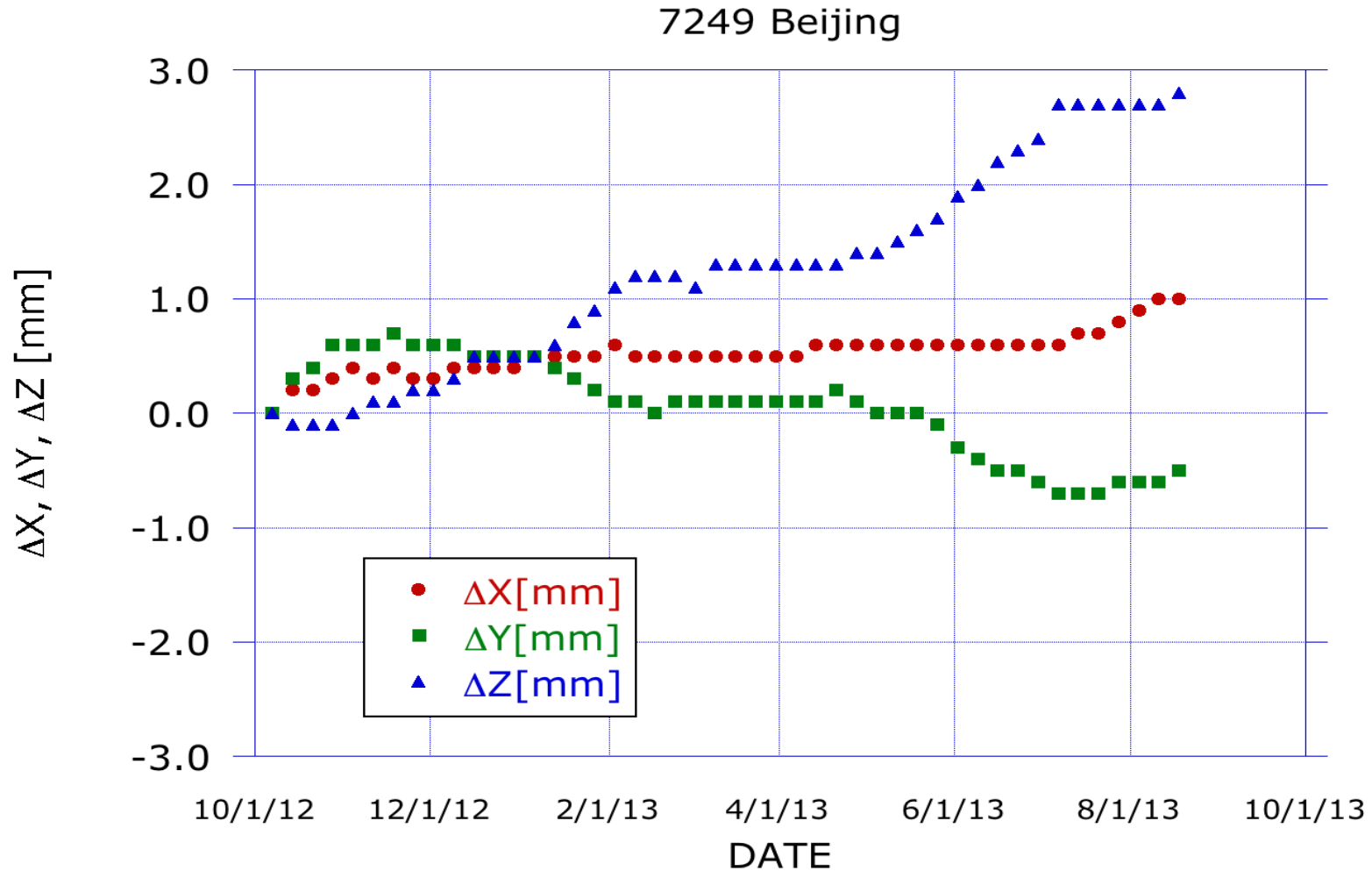


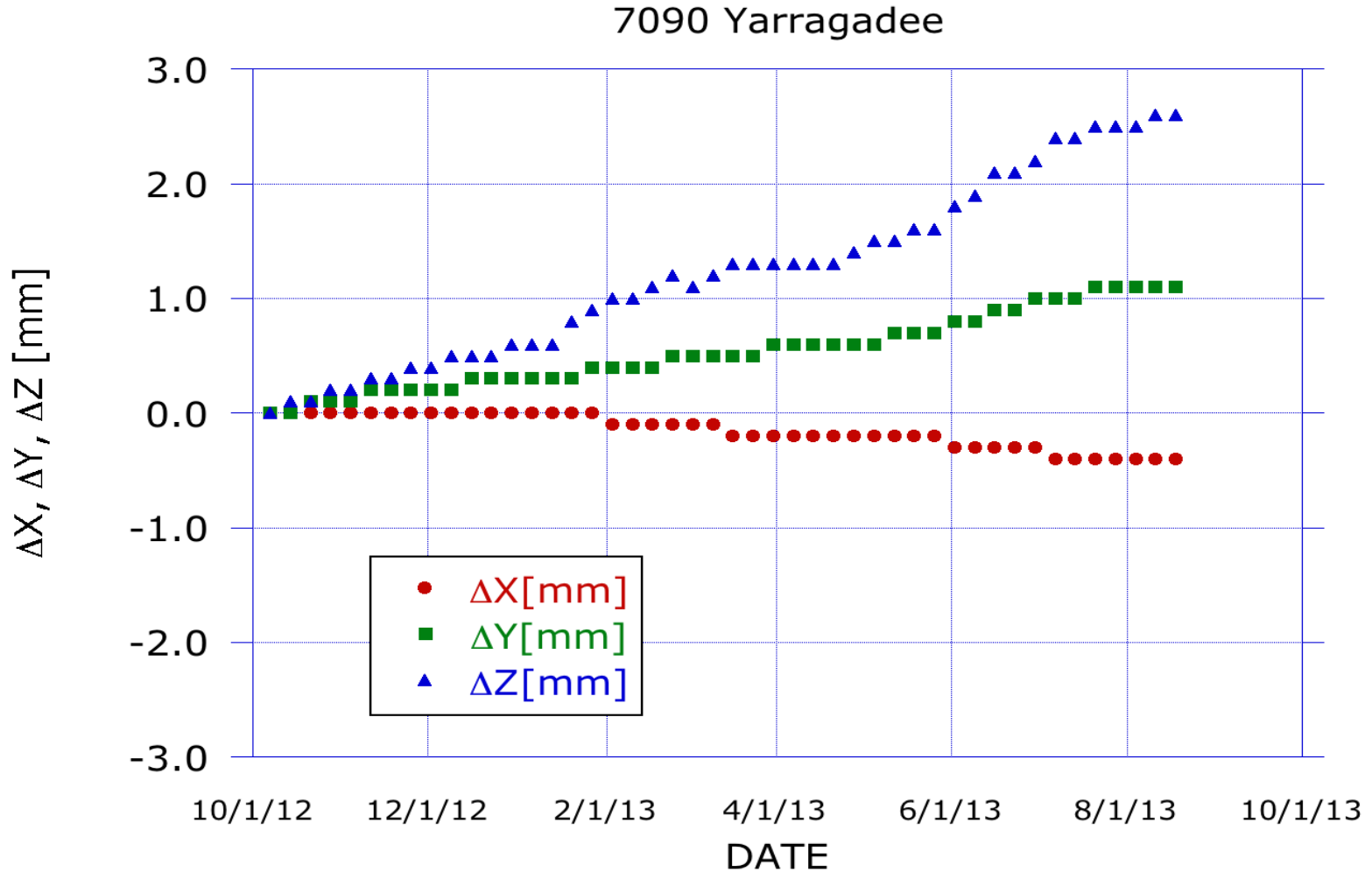


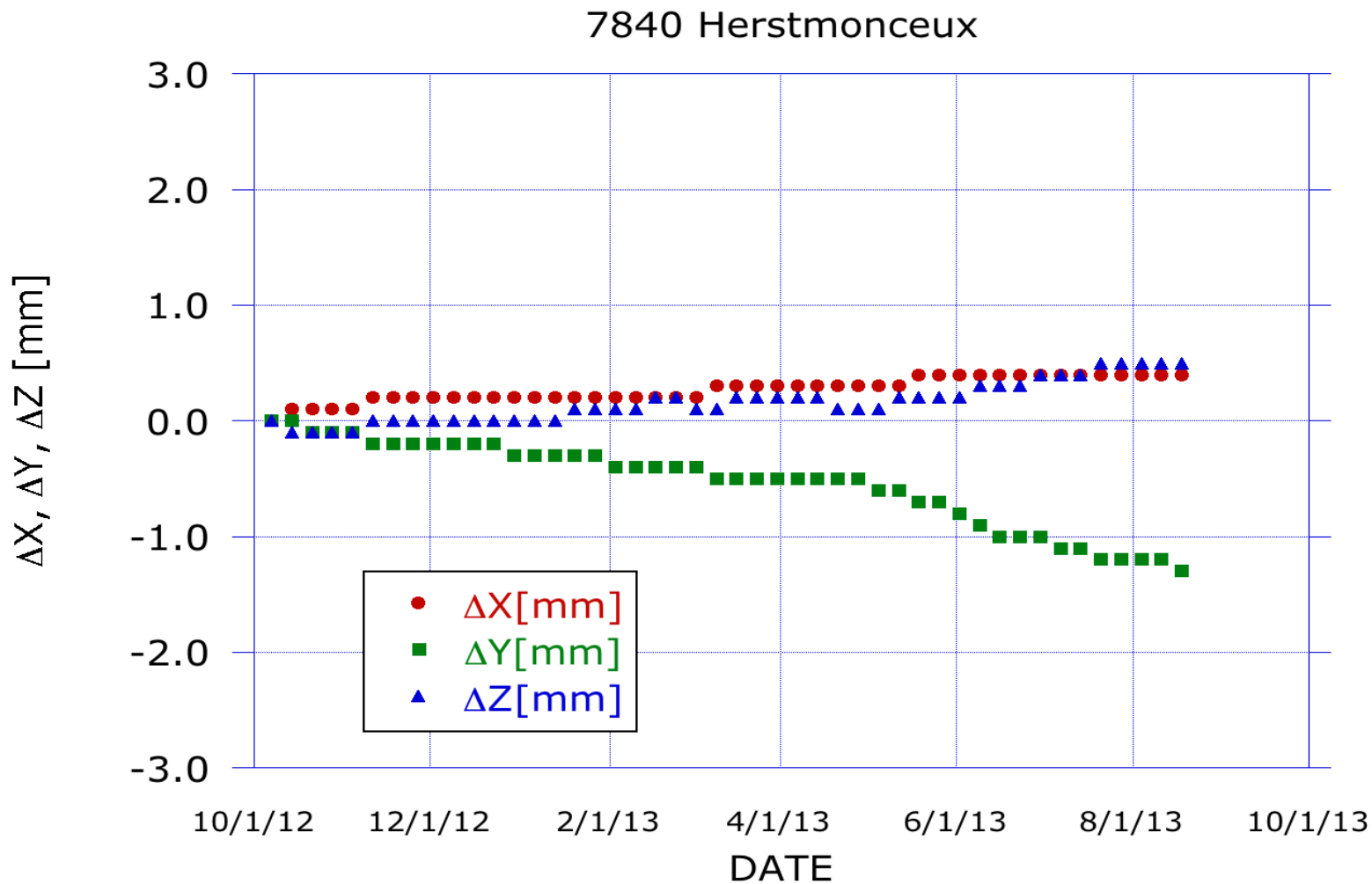


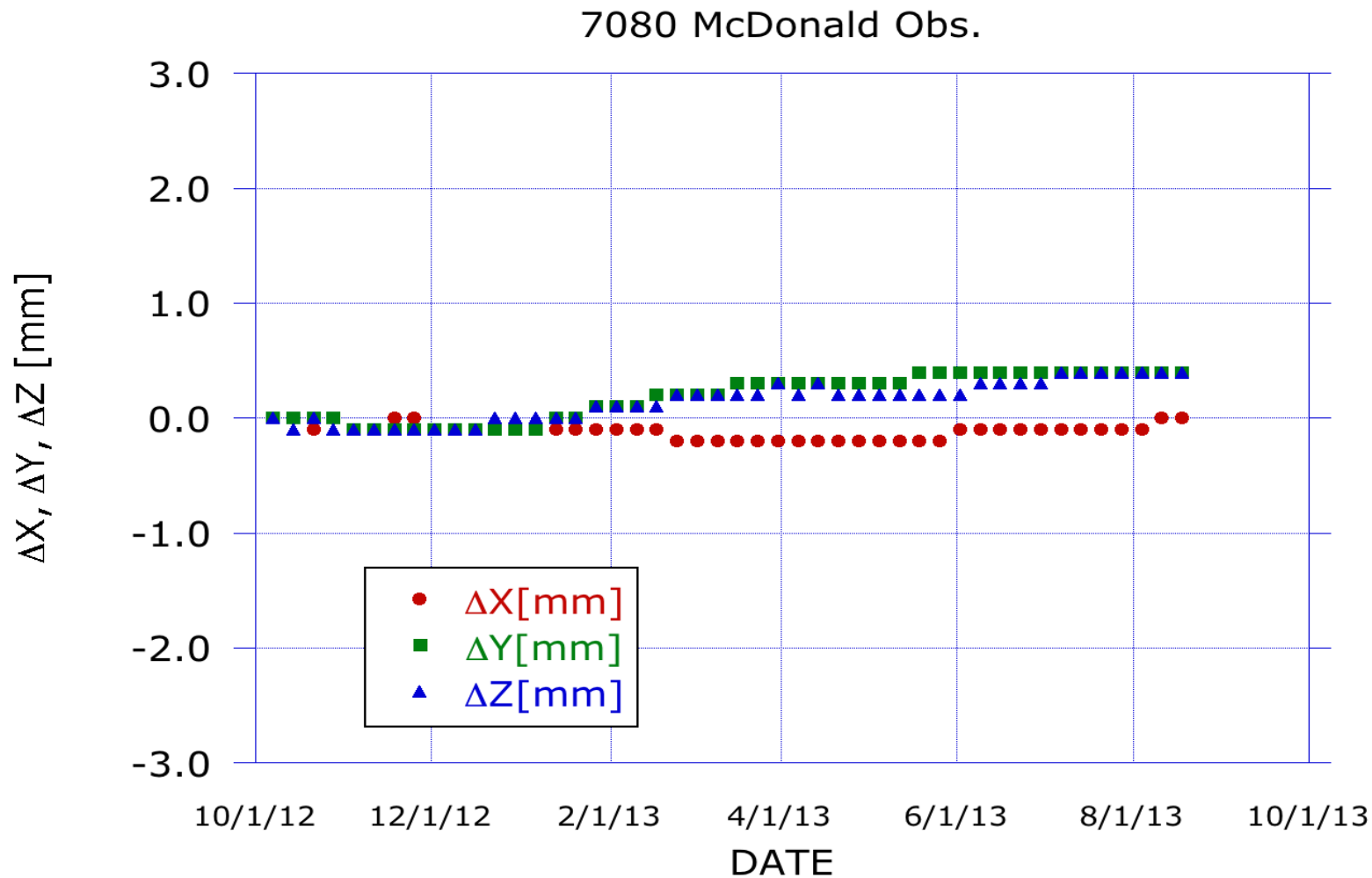


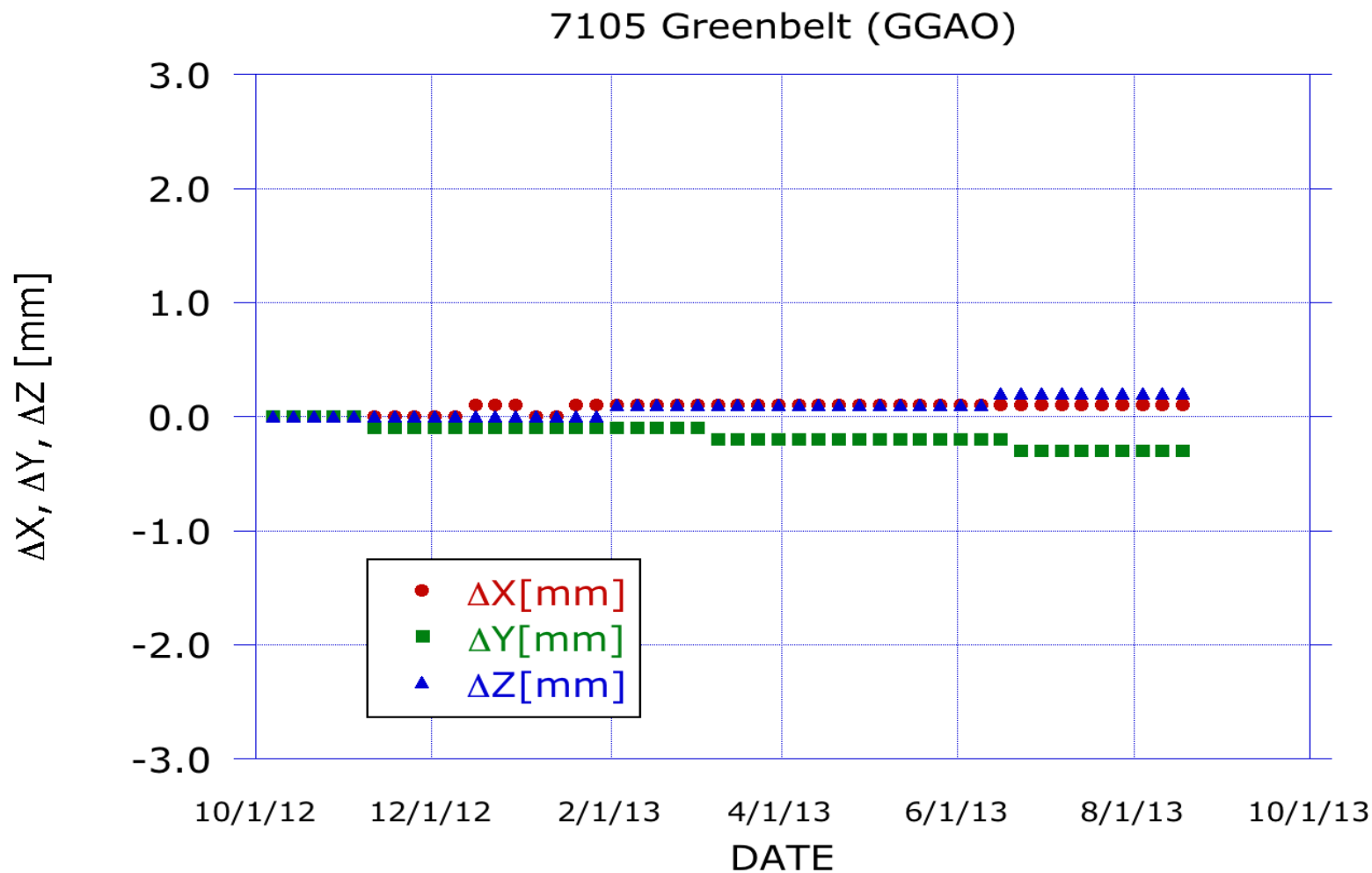










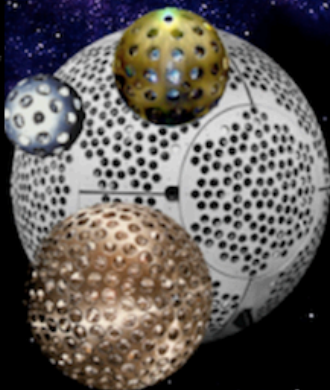




International Laser Ranging Service
Analysis Working Group



Monitoring of ILRS Analysis WG Products



WEEKLY STATION POSITIONS & DAILY EOP SERIES

EVALUATION OF WEEKLY AWG PRODUCTS

MONITORING SYSTEMATIC ERRORS AT ILRS STATIONS

NORMAL POINT DATA MONITORING (CDDIS)



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- A frequent update of the TRF used by the ILRS ACs is possible with little extra effort
- Updated quality coordinates can vastly improve the fidelity of the QC process for the network and ensure the quality of the ILRS products
- Addition of new SLR targets will enhance the quality of the monitoring of our products and provide the stations with better view of their systems performance (at various altitudes)

