

## Performance evaluation of different SAR-based techniques on the 2019 Ridgecrest sequence

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This electronic supplement contains figures of GNSS displacement map and time series, Interferometric Synthetic Aperture Radar (InSAR) data, additional analysis and the table of SAR and GNSS measurements.

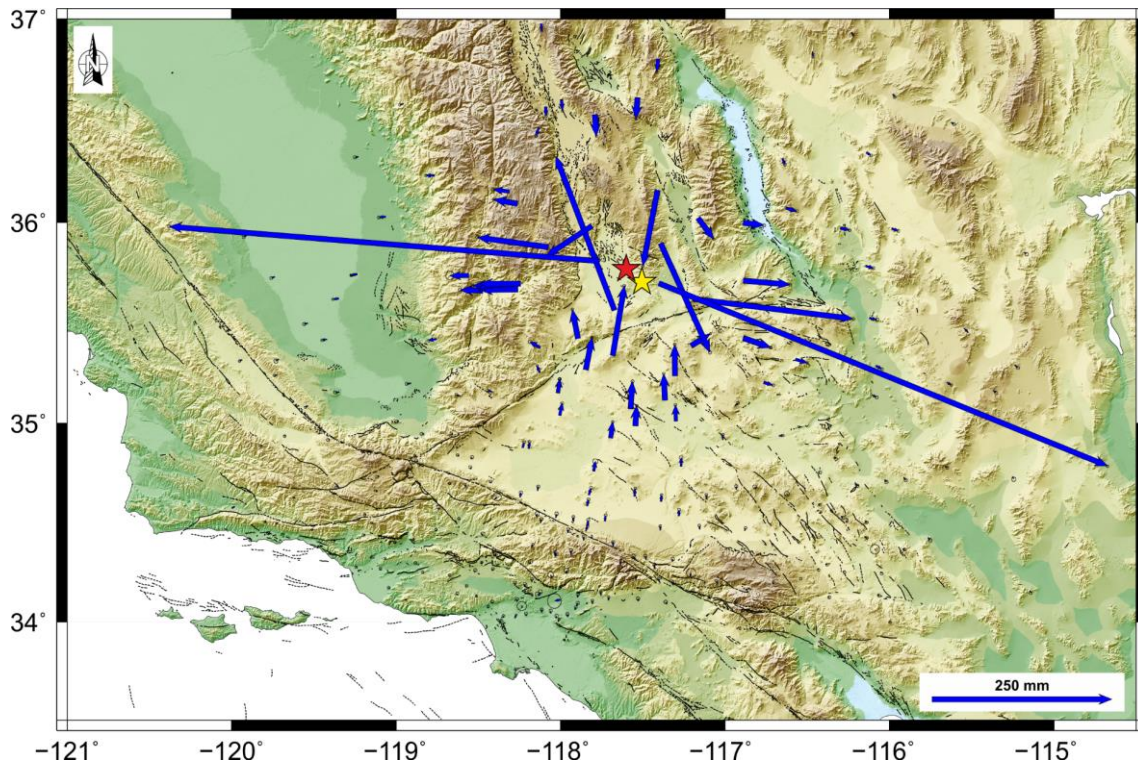


Figure S1: GNSS coseismic map. The yellow and the red stars represents the epicenters of the Mw 6.4 and 7.1 earthquakes, respectively.

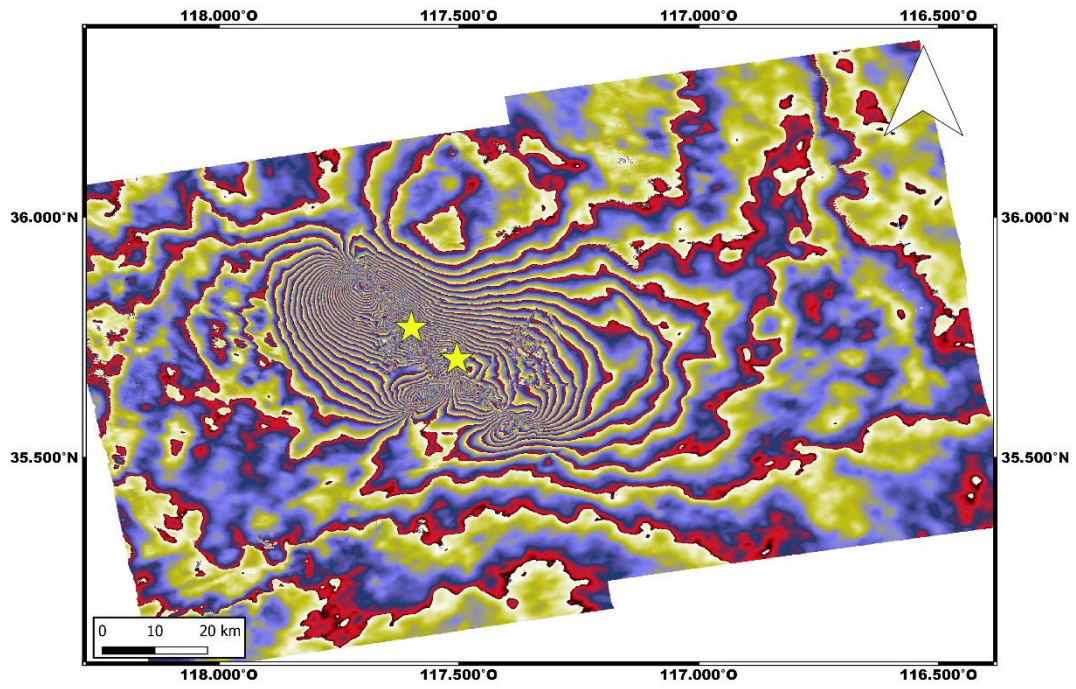


Figure S2: Original wrapped interferogram

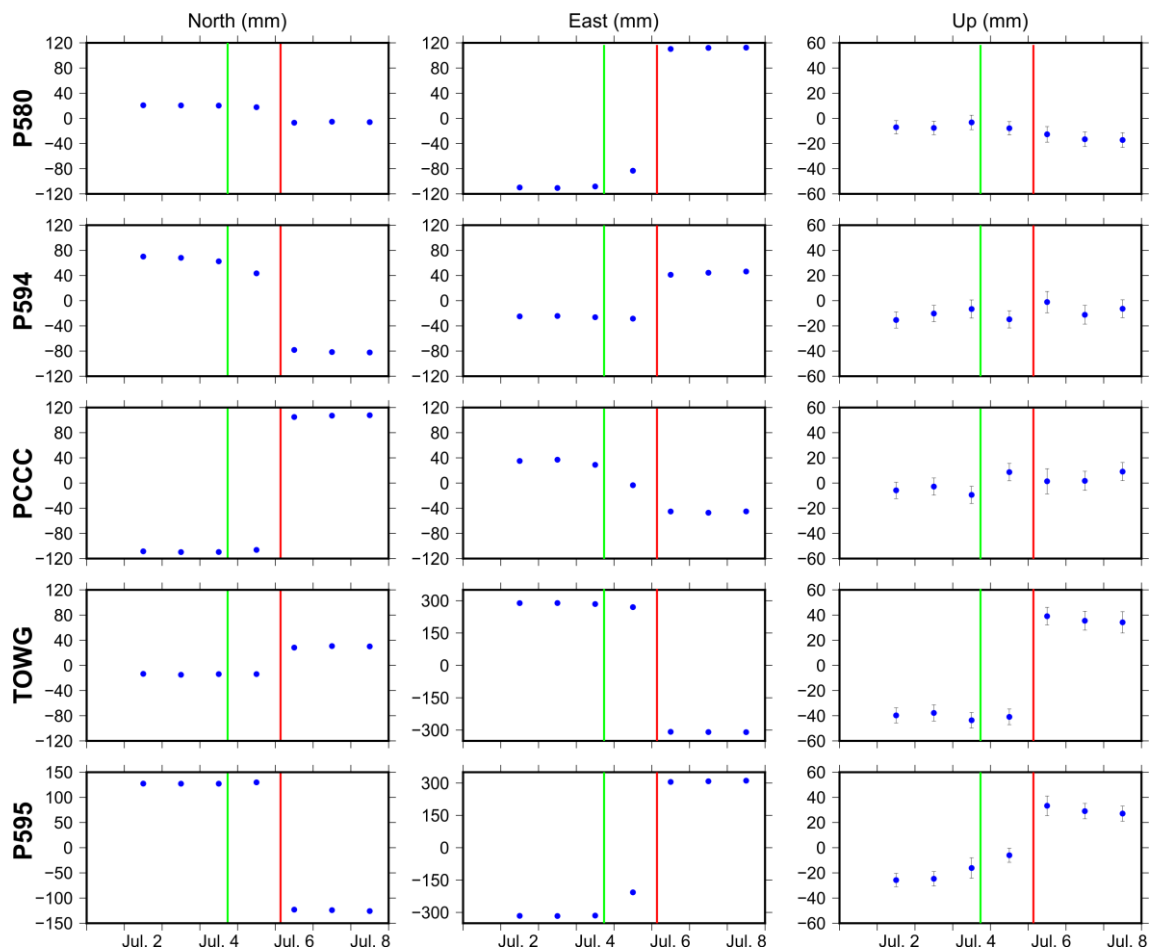


Figure S3: GNSS time series of 5 stations closely located to the epicentral area. The vertical green and red bars mark the Mw 6.4 and 7.1 earthquakes occurrence, respectively.

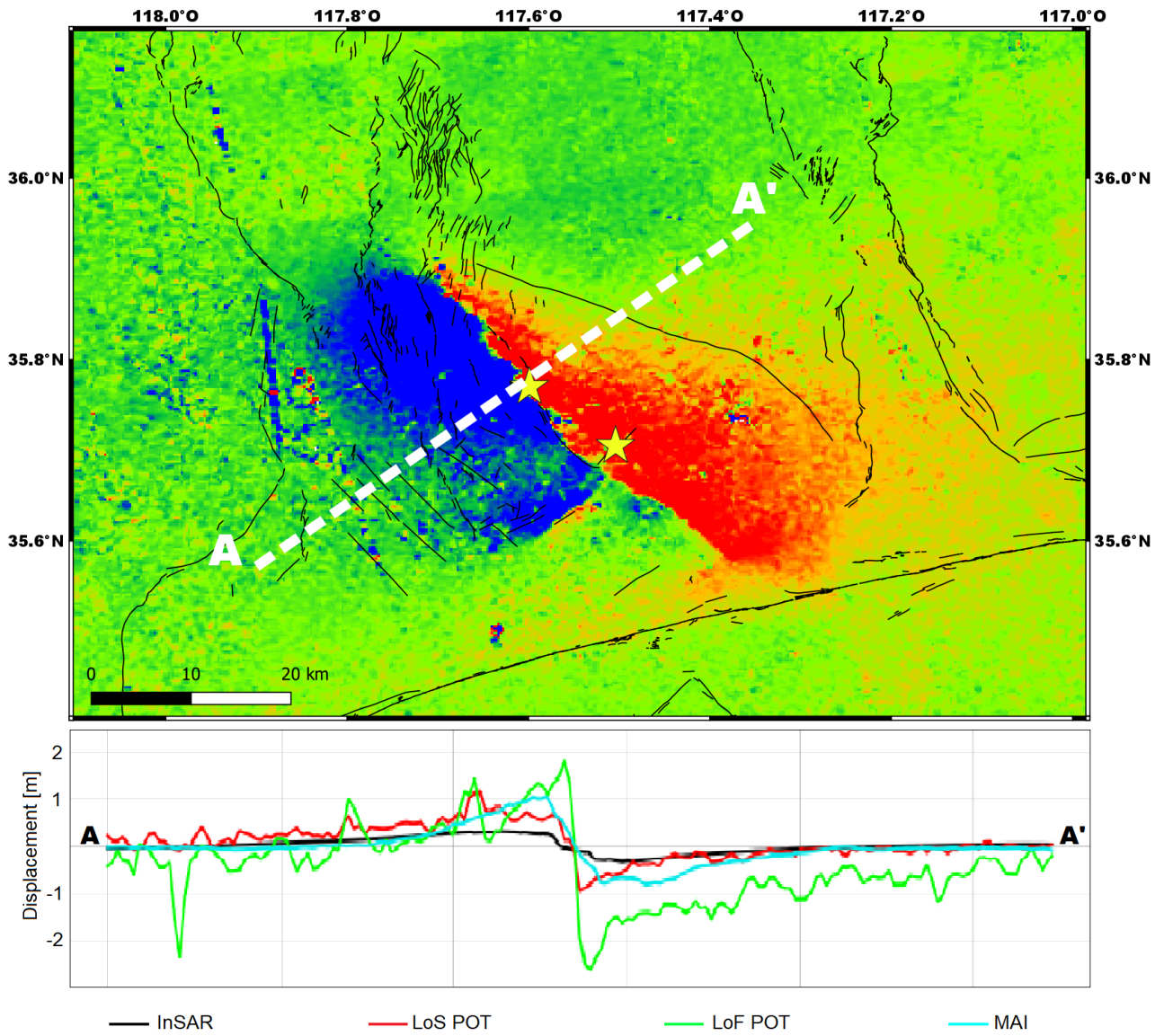


Figure S4: cross-section perpendicular to the strike of the M7.1 seismic faults

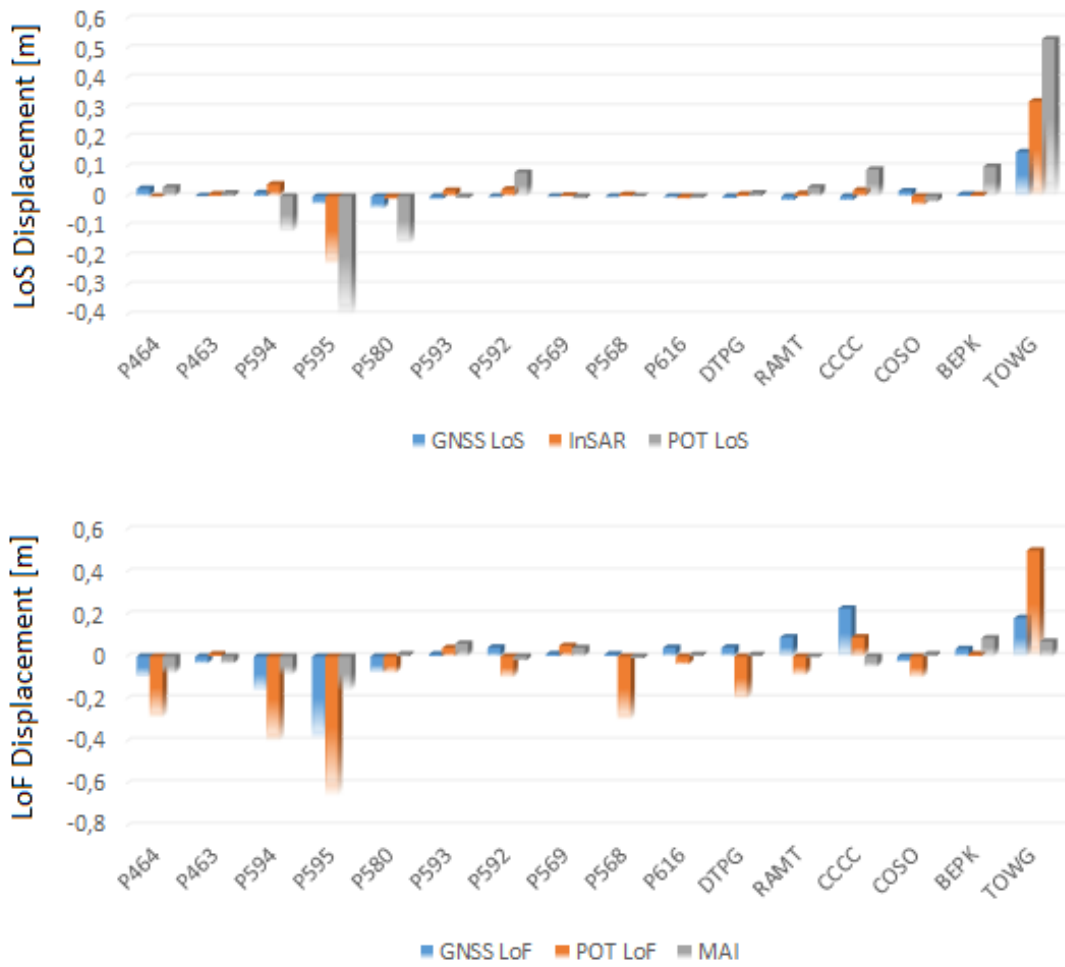


Figure S5: SAR-GNSS histograms for LoS (upper panel) and LoF (lower panel) displacement

SITE	Longitude	Latitude	Elevation	DE [mm]	DN [mm]	DU [mm]	SE [mm]	SN [mm]	SU [mm]
P464	242,59	36,15905	911,5157	-20,40	-104,90	8,40	0,91	0,96	3,68
P463	242,8353	36,02247	1326,991	22,10	-29,60	1,30	0,76	0,79	3,02
P594	242,6099	35,89671	937,39	68,50	-151,80	0,30	1,01	1,06	4,03
P595	242,5972	35,69756	644,4344	624,00	-254,20	54,20	0,84	0,87	3,28
P580	242,8078	35,62095	1669,623	222,30	-27,70	-11,60	0,84	0,87	3,29
P593	242,7949	35,38787	1375,761	26,80	16,80	-4,40	0,65	0,68	2,58
P592	242,6968	35,23855	1049,313	-0,30	43,30	5,50	0,81	0,84	3,22
P569	241,8762	35,37797	1275,727	-14,20	8,20	-3,00	1,10	1,14	4,28
P568	241,8735	35,25431	1301,208	-3,70	9,50	-2,20	0,73	0,76	2,90
P616	242,1067	35,42456	1071,187	-7,80	40,20	2,30	0,84	0,87	3,29
DTPG	242,1541	35,26746	910,2376	8,70	45,20	1,70	0,85	0,87	3,30
RAMT	242,3166	35,33872	1406,587	16,30	97,00	4,40	0,90	0,93	3,54
CCCC	242,3288	35,56531	813,9546	-81,60	214,40	5,10	1,06	1,10	4,15
COSO	242,1911	35,98234	1455,113	-63,40	-41,60	0,30	0,89	0,93	3,69
BEPK	241,9259	35,87839	2471,103	-98,80	13,70	-11,70	0,94	0,97	3,83
TOWG	242,2351	35,80856	657,0705	-597,90	48,10	73,60	1,00	1,05	4,00

GNSS_LoS [mm]	GNSS LoF [mm]	InSAR [mm]	POT LoS [mm]	POT LoF [mm]	MAI [mm]
25,32	-97,16	-0,6	30	-290	-80
1,64	-33,68	7	10	10	-34
11,21	-162,66	40	-120	-400	-87
-26,90	-386,97	-230	-400	-660	-160
-42,10	-76,89	-10	-160	-80	10
-10,32	10,27	19	-8	40	60
-2,25	42,07	23	80	-100	-20
-1,07	11,15	3	-9	50	40
-2,44	10,05	5	1	-300	-10
-2,93	40,75	-9	-7	-40	8
-6,91	41,89	6	10	-200	7
-13,86	90,42	8	30	-90	-4
-14,24	226,33	20	90	90	-50
17,10	-26,09	-30	-20	-100	10
5,86	35,52	5	100	10	86
148,95	181,18	320	530	500	70

**Table S1: GNSS and SAR measurements**