
A global view of urban land subsidence and its changing trajectories

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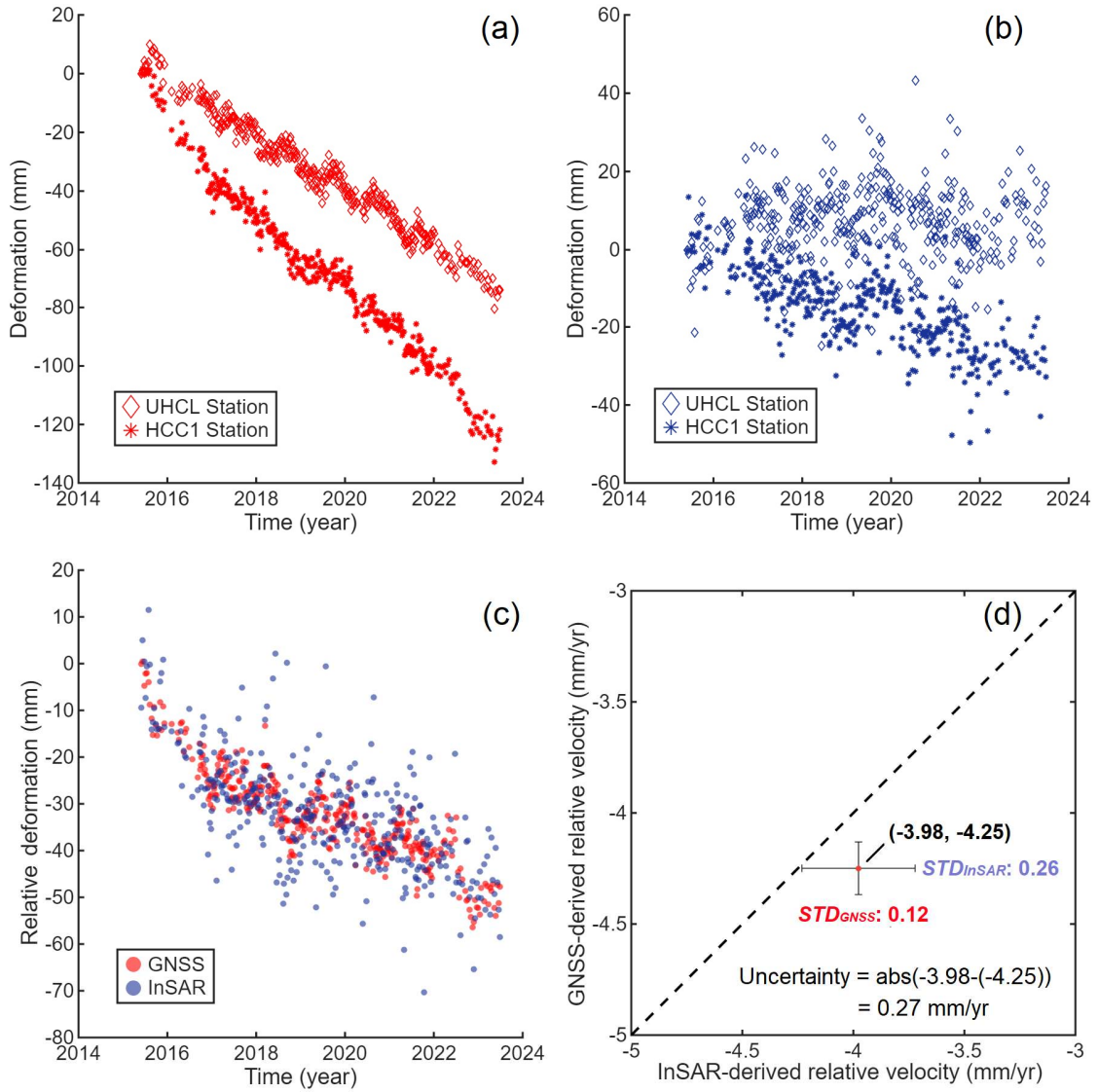


Fig. S1. Workflow specialized for assessment of InSAR measurements. Only cities with at least two GNSS stations were selected for assessment. In each city, the GNSS station with the minimal vertical deformation was selected as reference site, and all other stations were sequentially paired with it. For each pair, relative time-series was derived by subtracting the deformation time series of the reference site from that of the paired site, and relative velocity was then estimated via linear fitting. The InSAR-derived relative velocity was obtained in the same manner using pixels co-located with the two GNSS sites. The uncertainty was finally calculated as the absolute difference between the InSAR- and GNSS-derived relative velocities. This approach effectively transforms both GNSS and InSAR measurements in a local reference frame anchored at the reference site to ensure a reasonable assessment. The example shown is from Houston, where HCC1 station (reference site) and UHCL station were used to illustrate the assessment process. **(a)** shows GNSS

time series from these two sites. **(b)** presents the InSAR time series for the pixels co-located with the two GNSS sites. **(c)** displays the relative time-series measured by GNSS (red points) and InSAR (blue points), respectively. **(d)** shows the uncertainty of InSAR-derived velocity, where the horizontal and vertical error bars represent standard deviations of the InSAR and GNSS velocity (Eq. 6), respectively. Note that both GNSS and InSAR time series were projected onto the line-of-sight (LOS) direction.

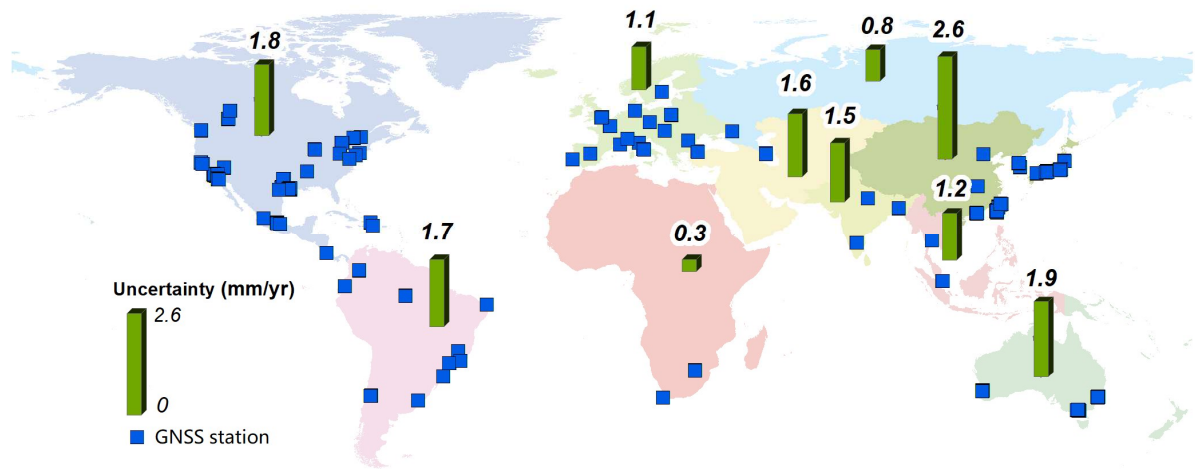


Fig. S2. Regional validation of InSAR derived relative local land subsidence (RLLS) using GNSS observations. The green bars represent the uncertainties in different regions, and the blue squares show the spatial distribution of GNSS stations. Note that GNSS observations were converted into InSAR LOS direction. In each city, one GNSS station was selected as the reference site; all other stations were sequentially paired with this reference to compute relative velocities in the local reference frame. For each pair, uncertainty was calculated as the absolute difference between the InSAR- and GNSS-derived relative velocities (see Fig. S1). The regional uncertainty shown here was calculated as the mean of uncertainties derived from all GNSS station pairs in the corresponding area.

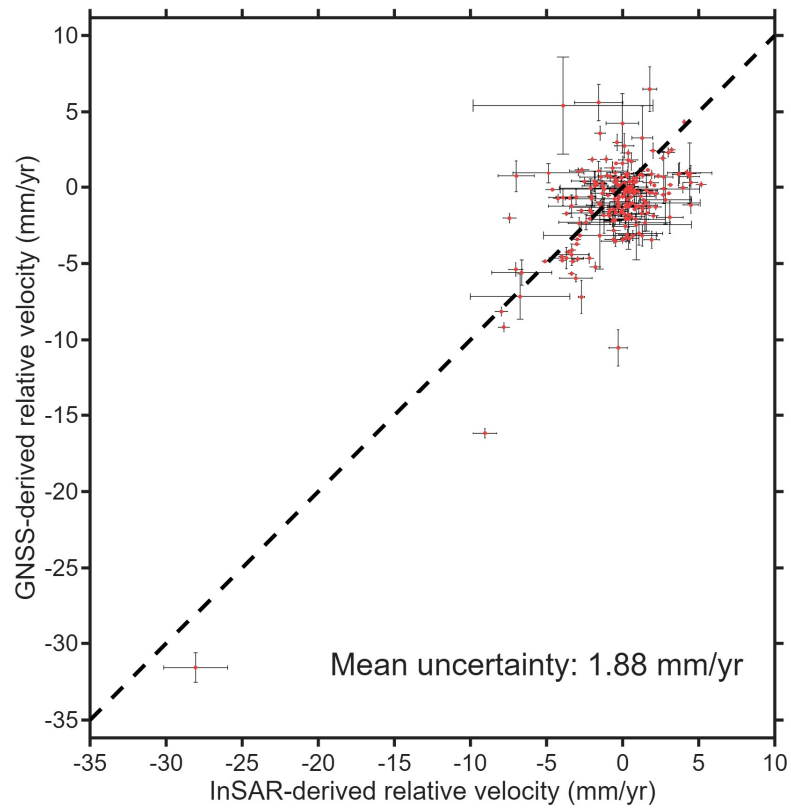
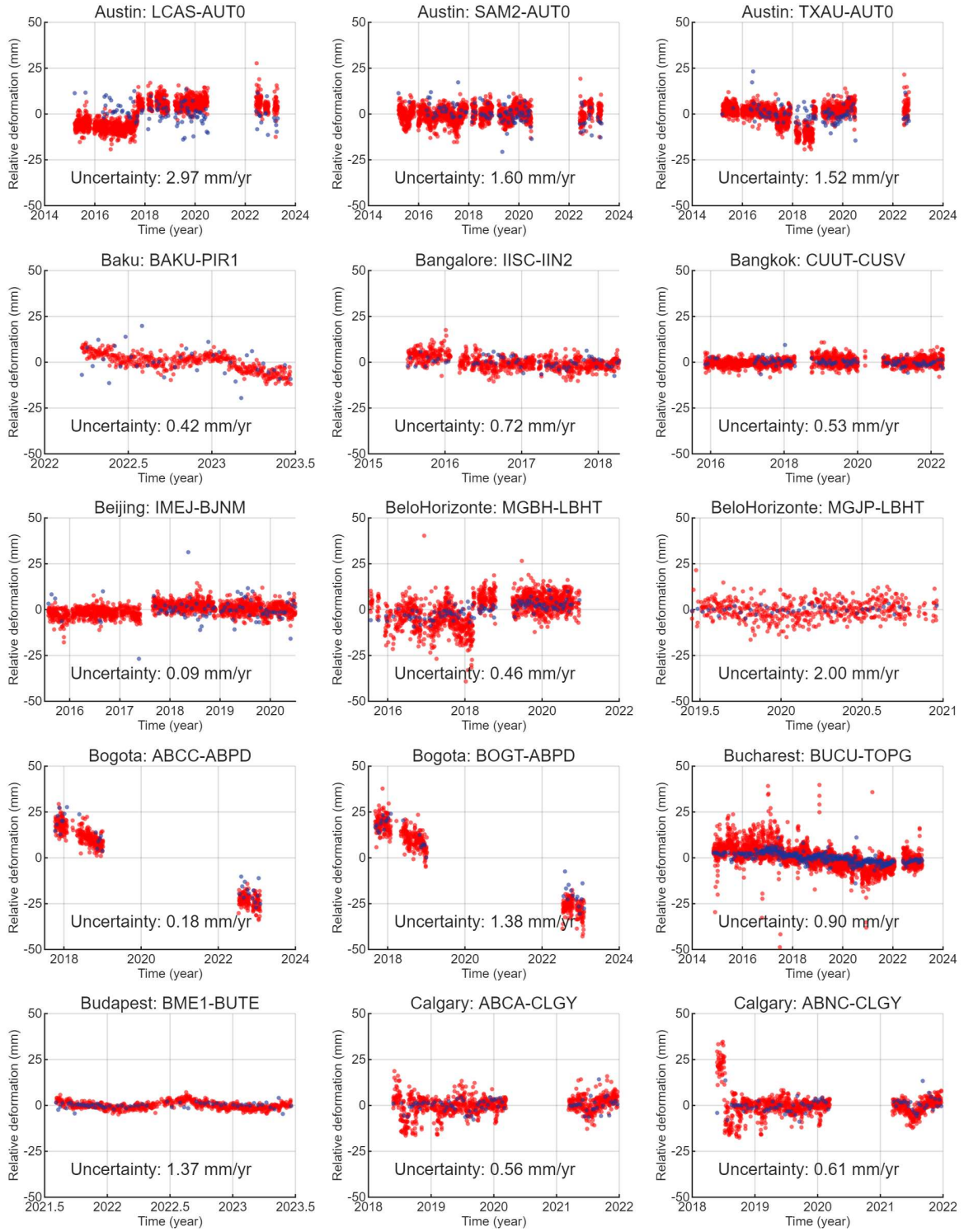
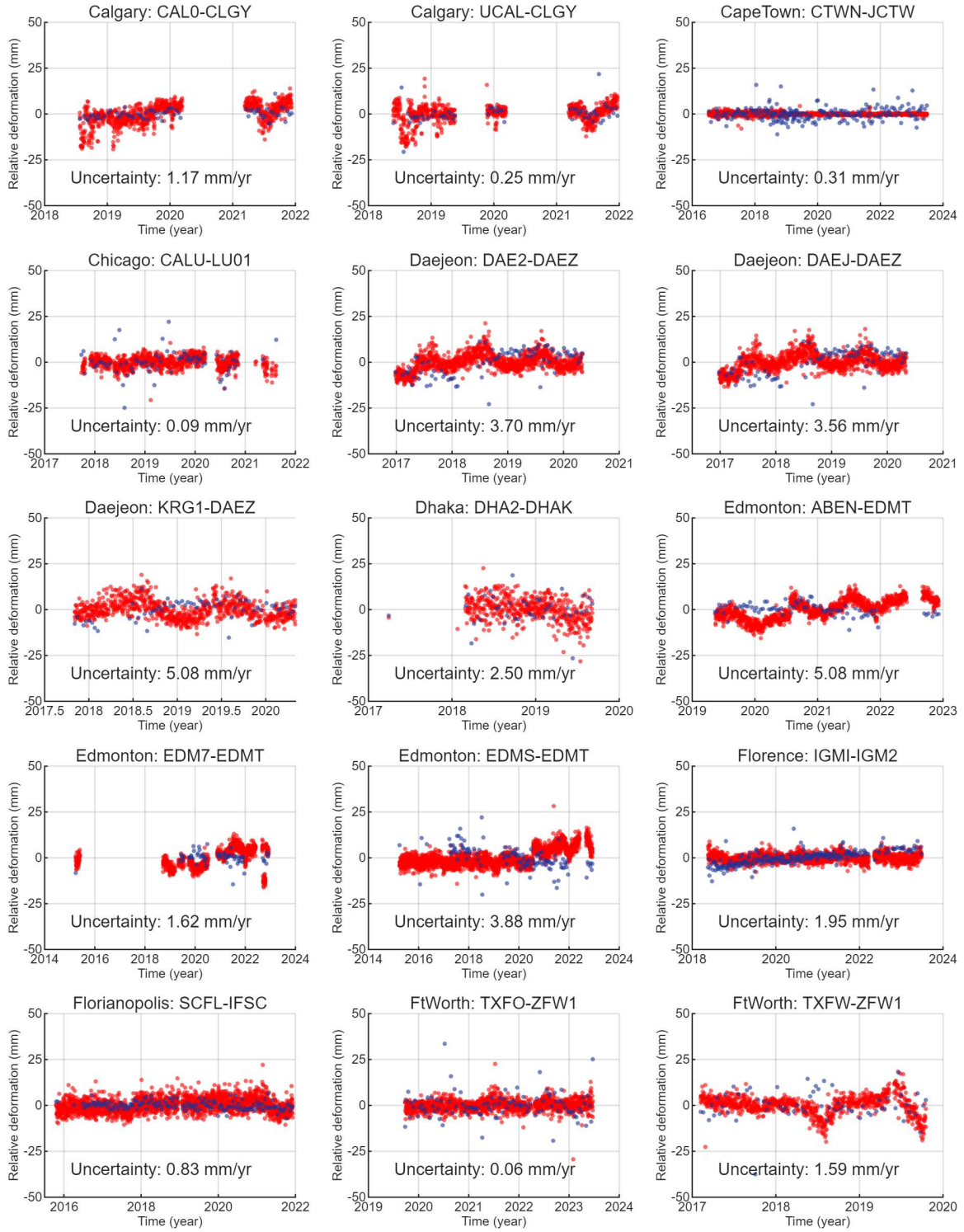
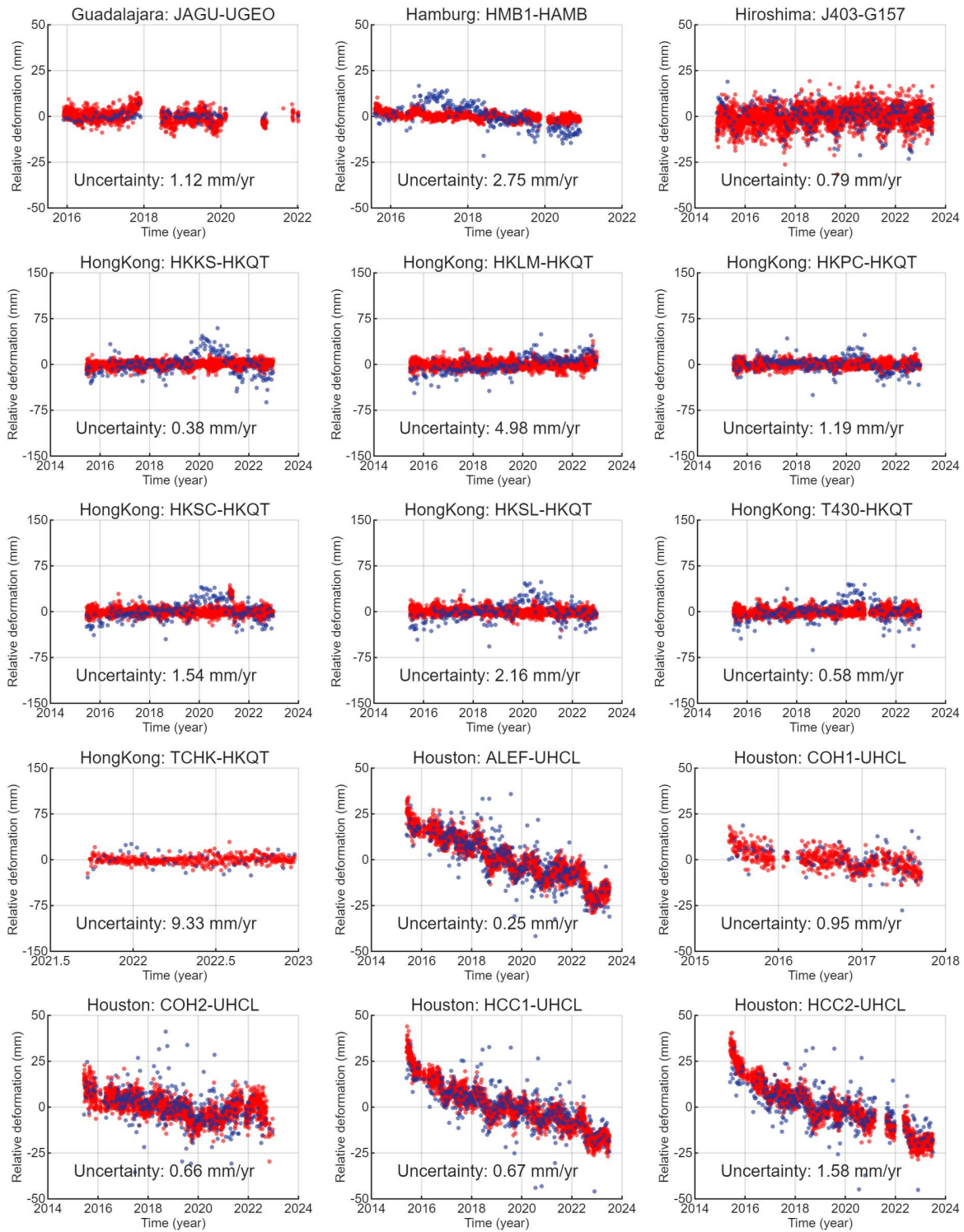
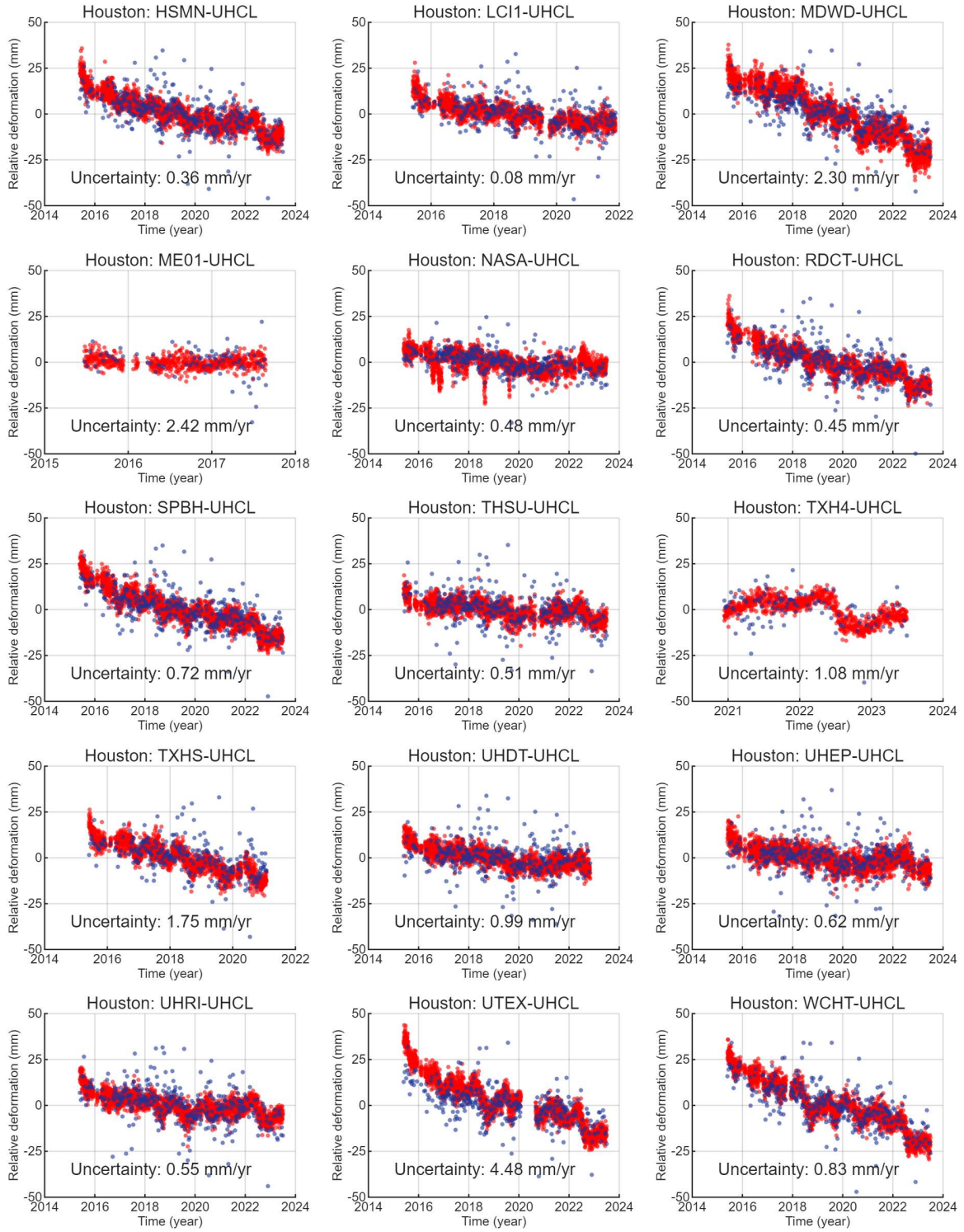


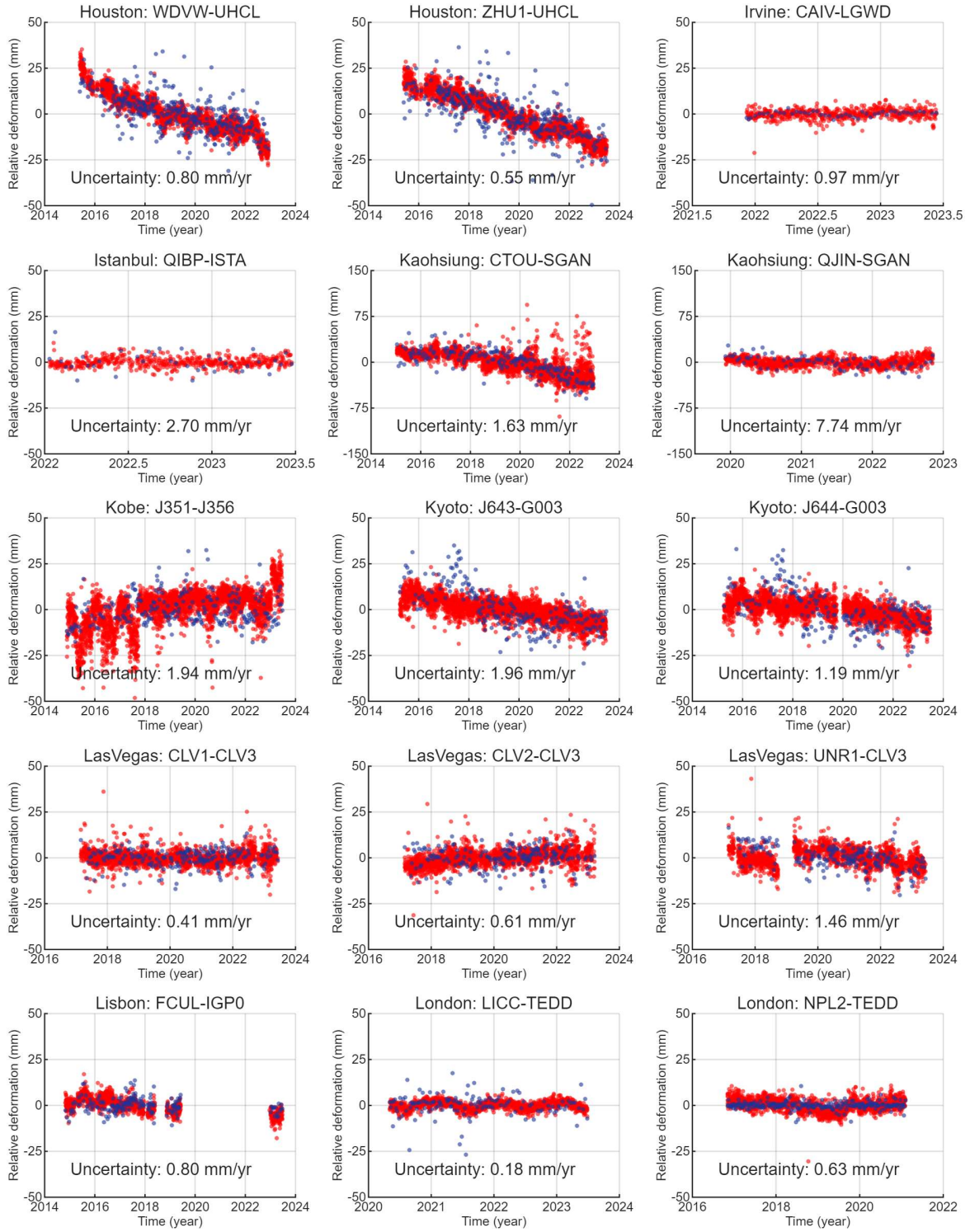
Fig. S3. Accuracy assessment for InSAR-derived relative local land subsidence (RLLS) velocity using 320 available GNSS stations across all cities. Note that the GNSS and InSAR observations were anchored to city-specific reference sites, with one reference site chosen per city. Detailed workflow for calculating the uncertainty was shown in Fig. S1.

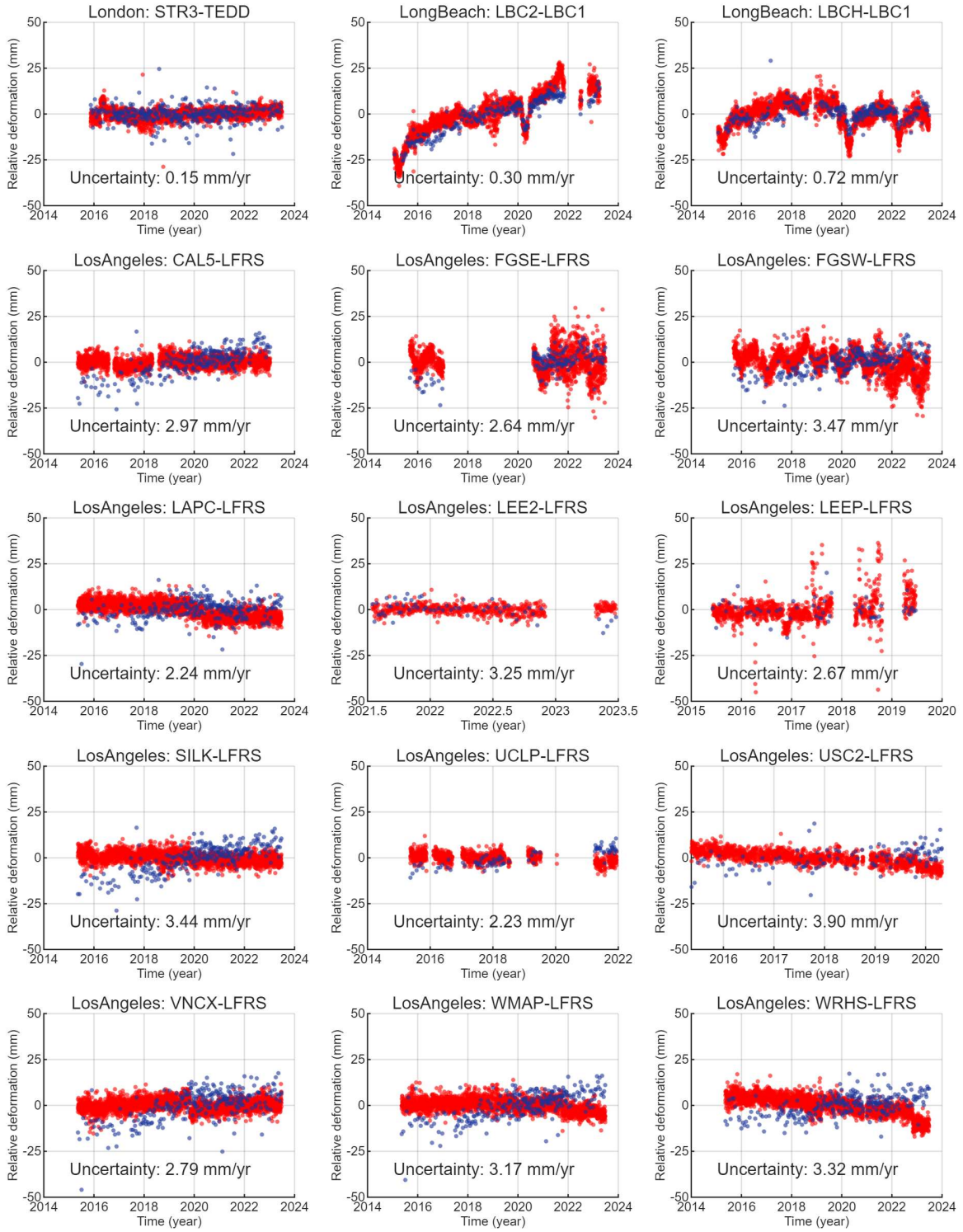


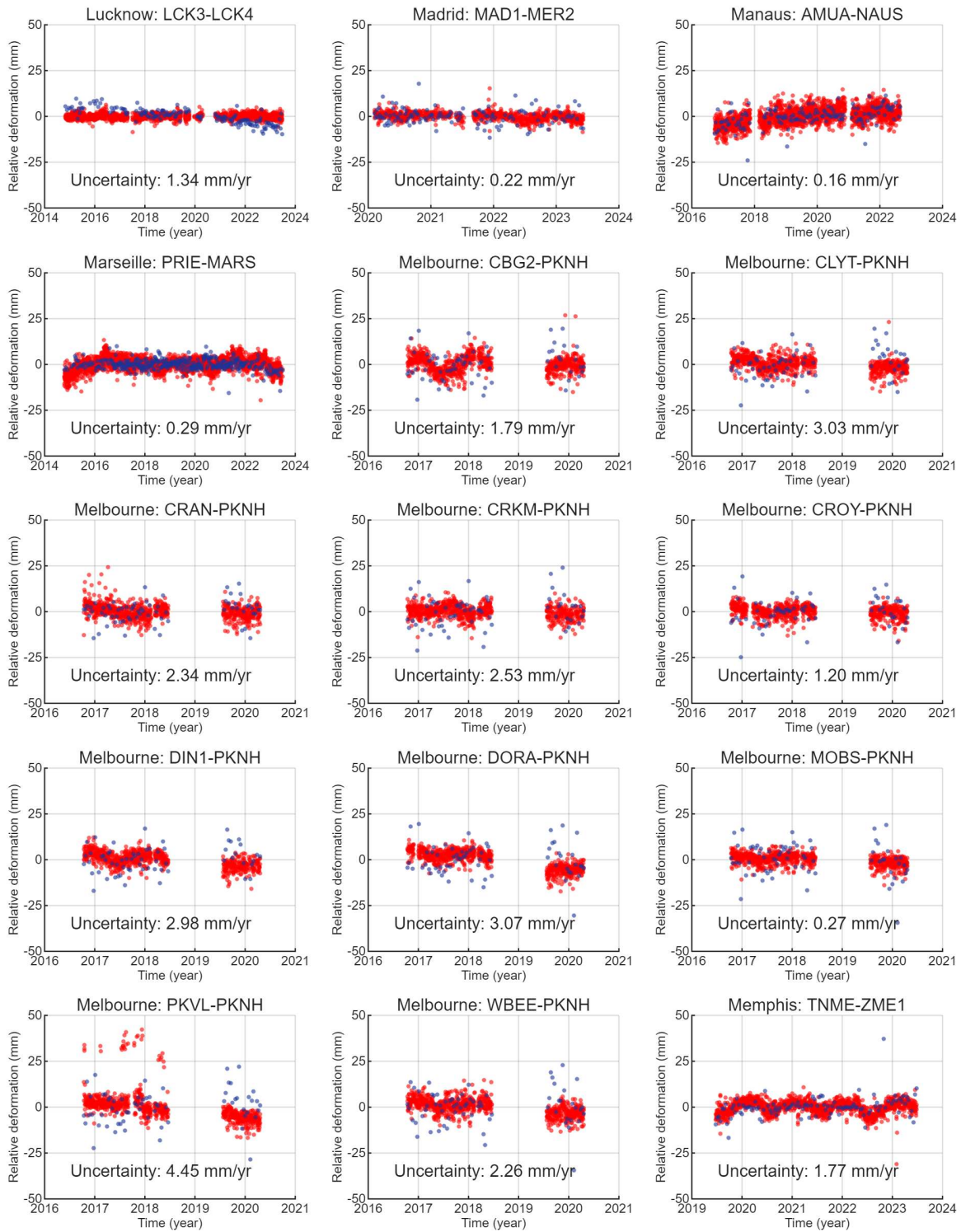


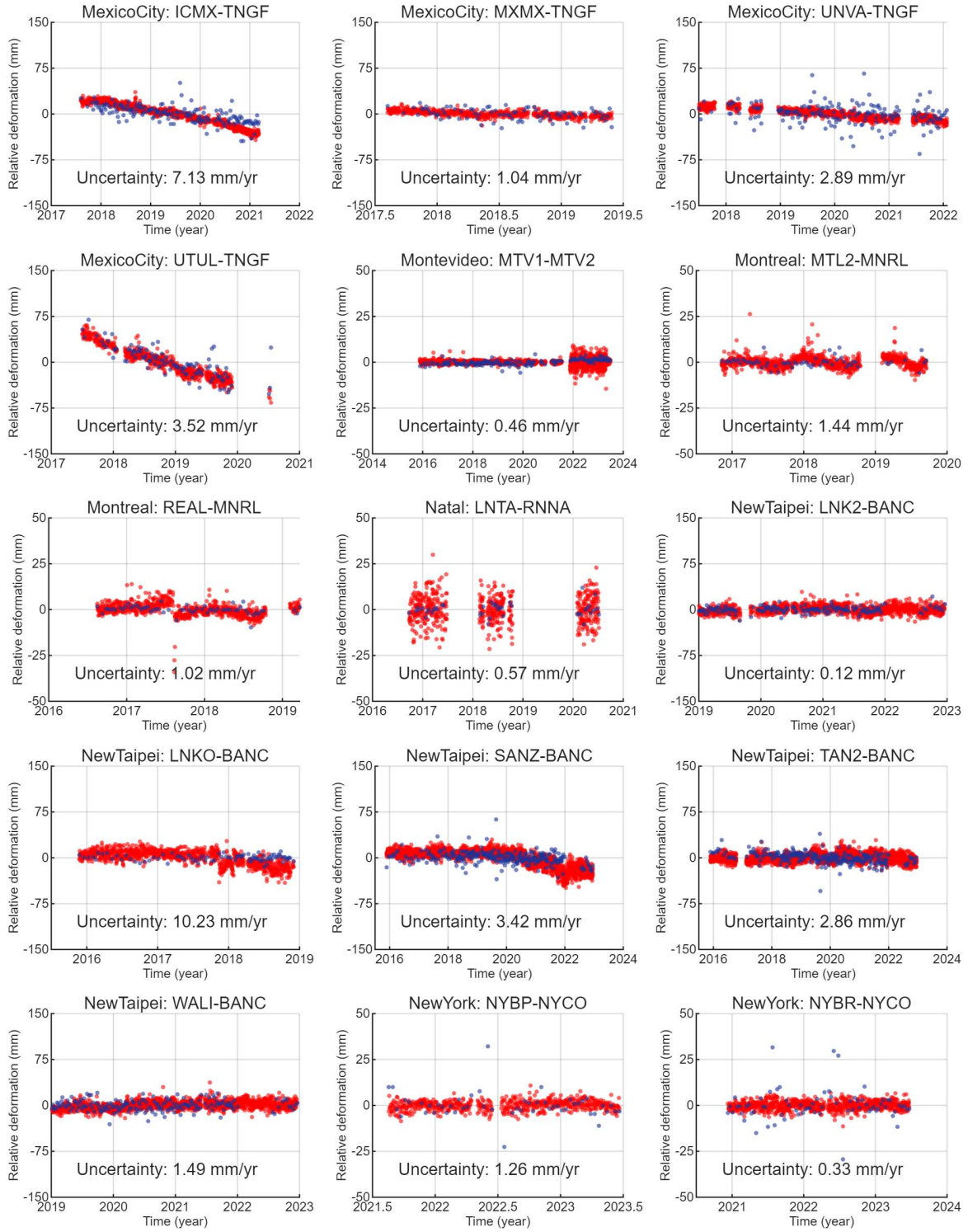


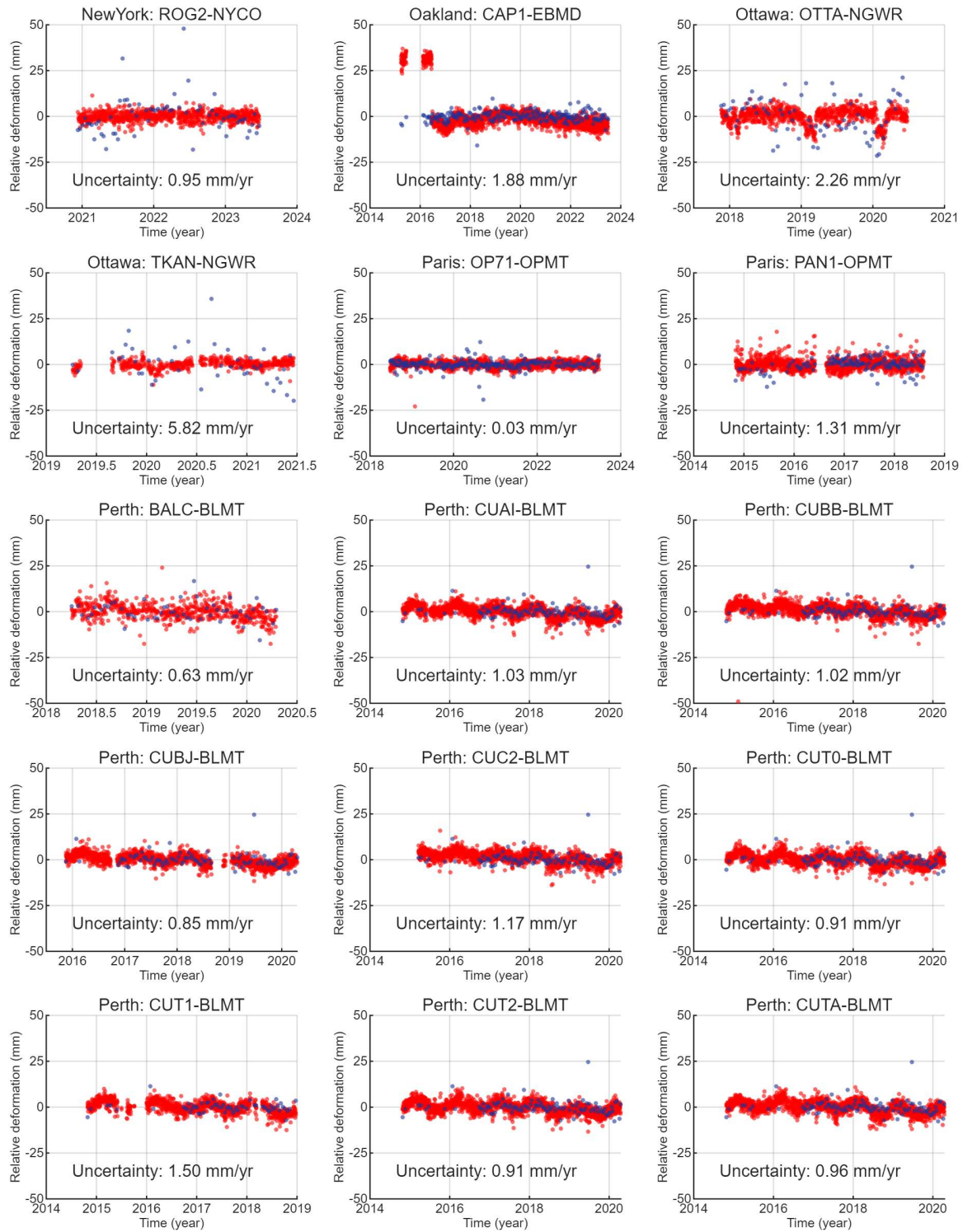


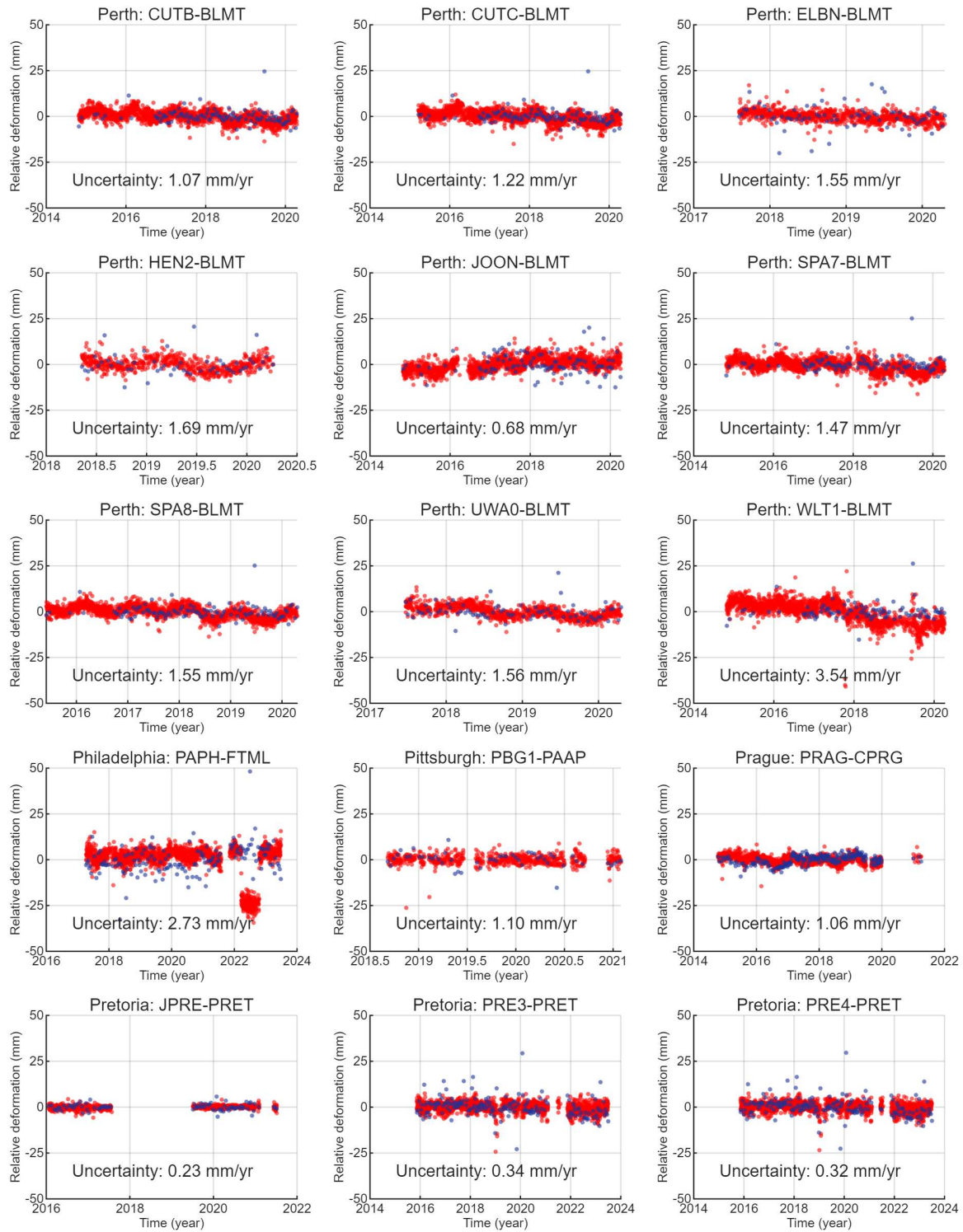


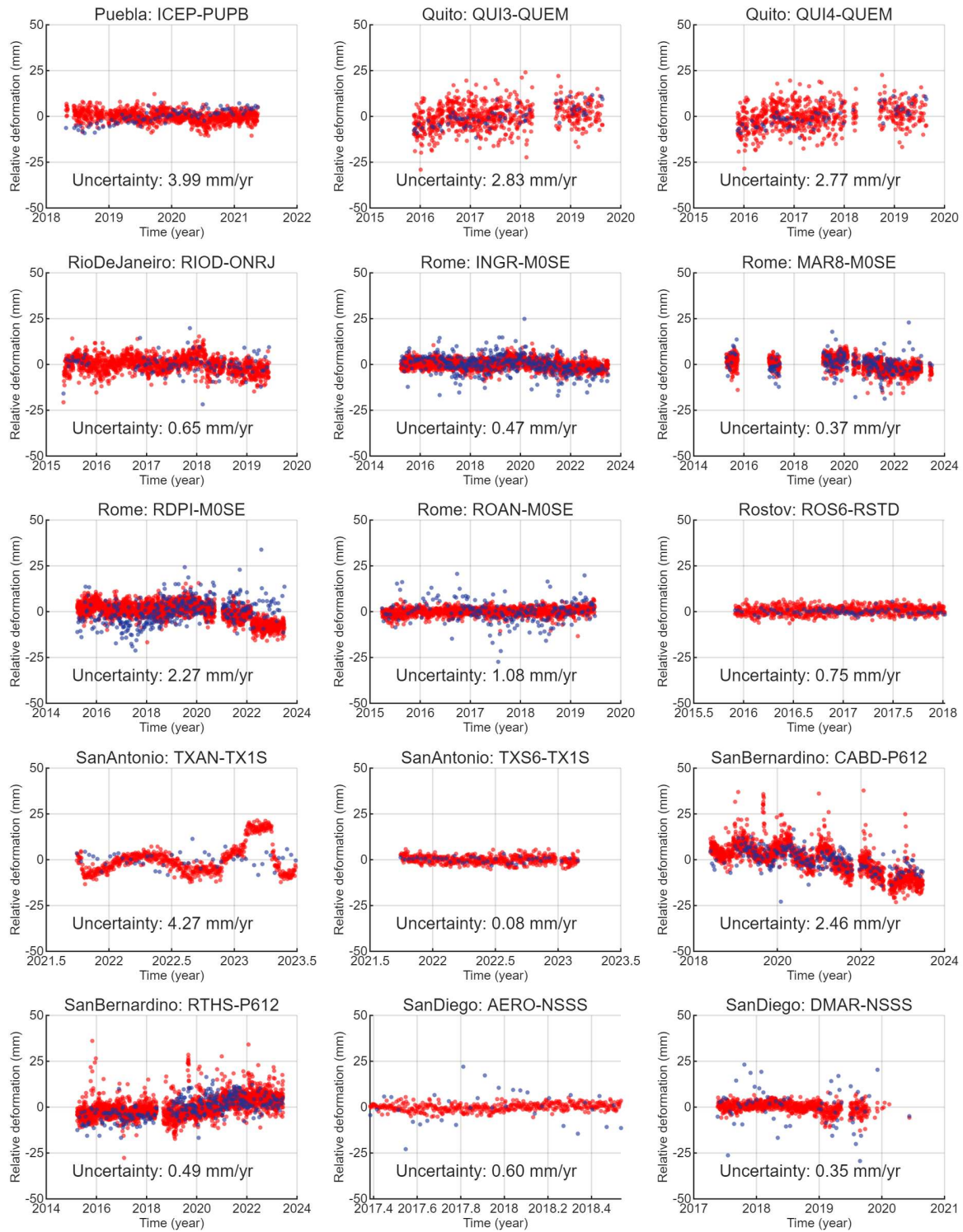


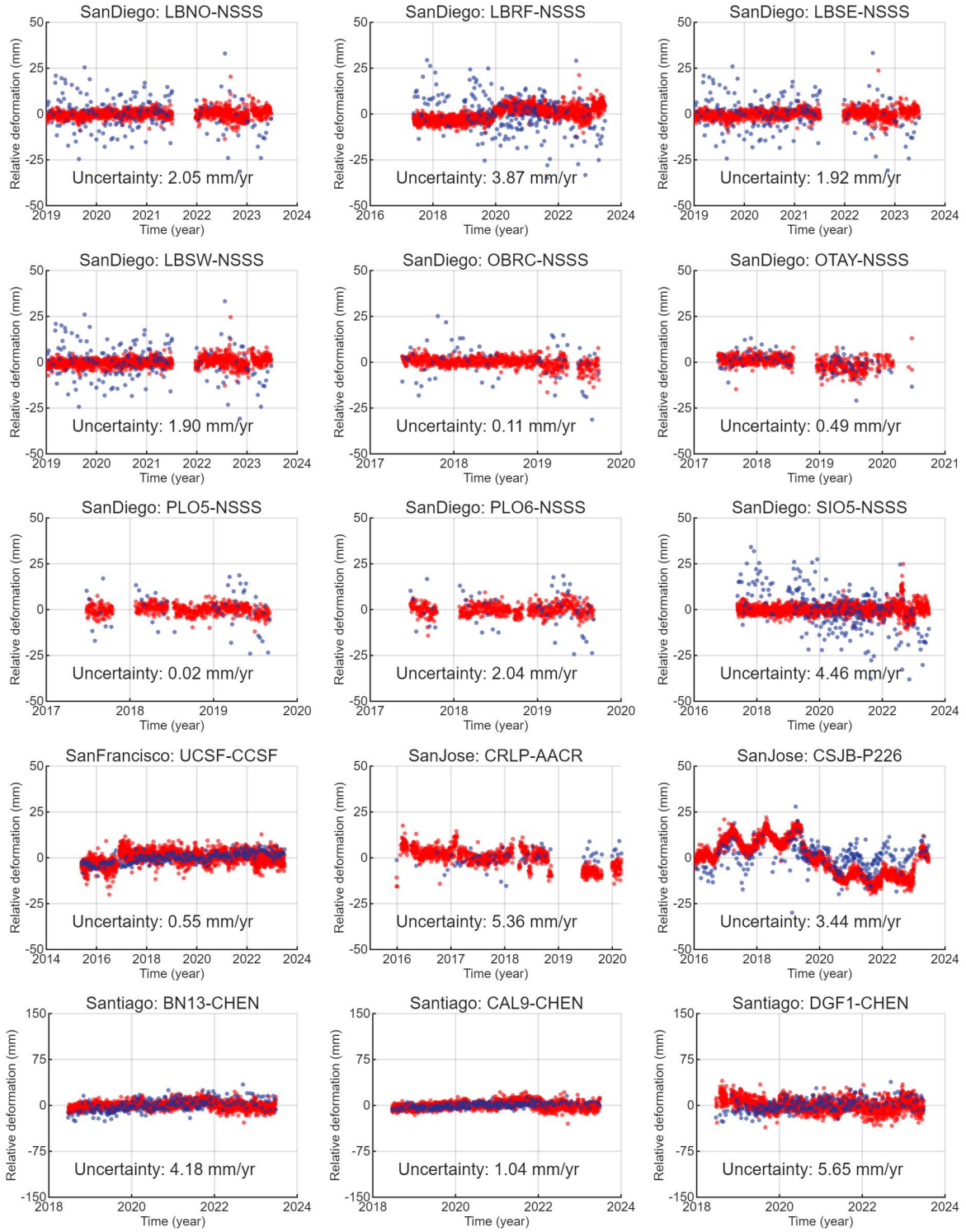


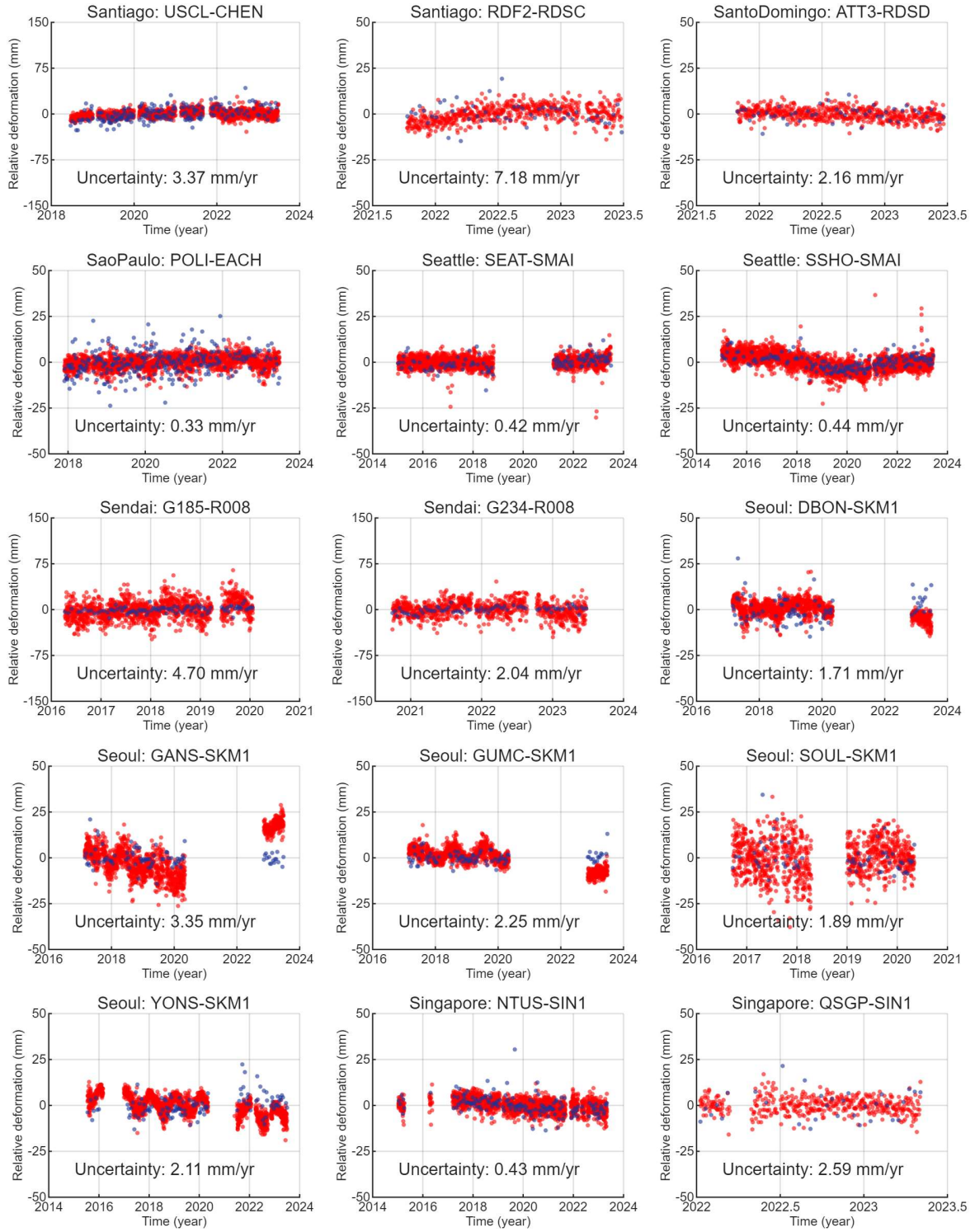


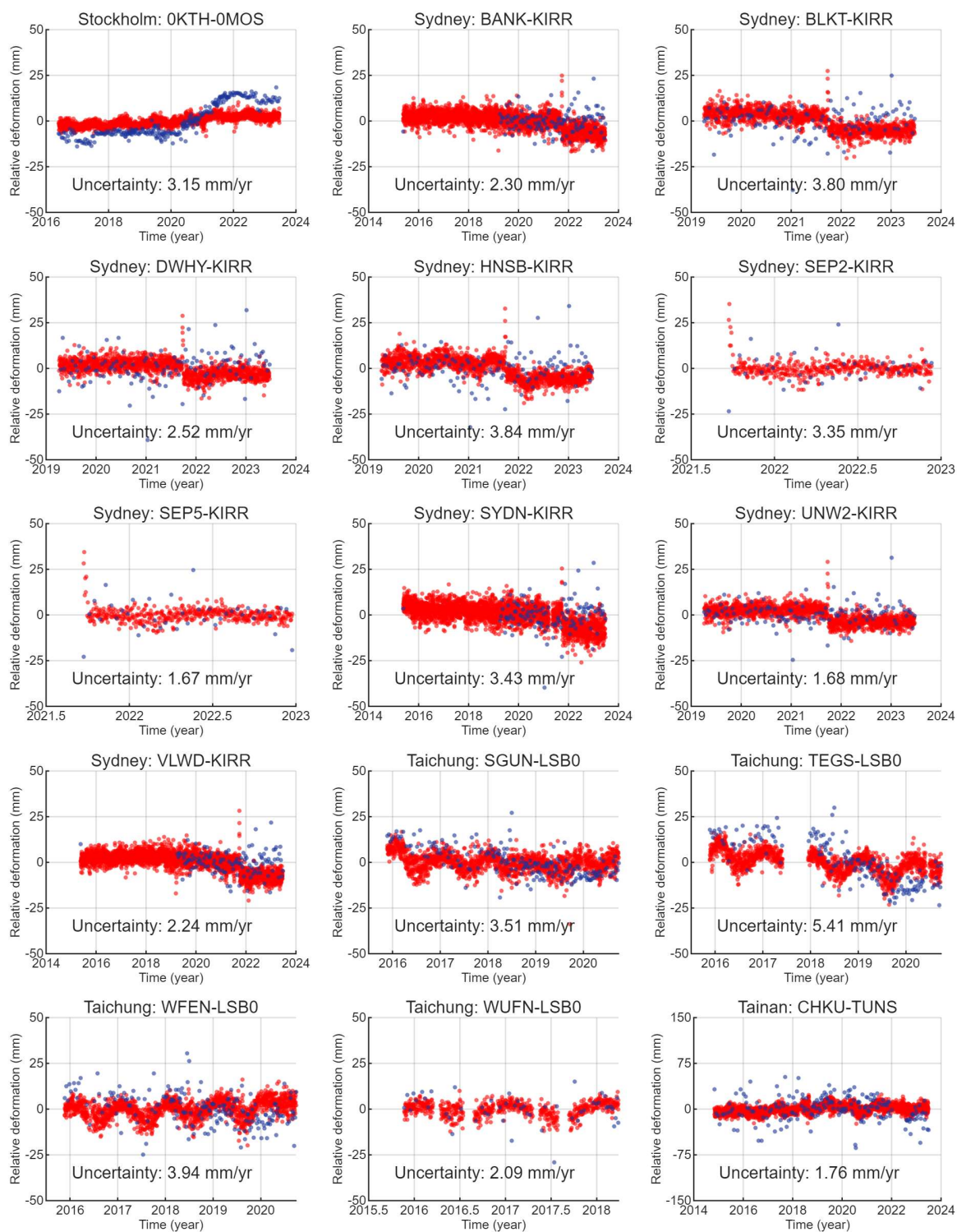


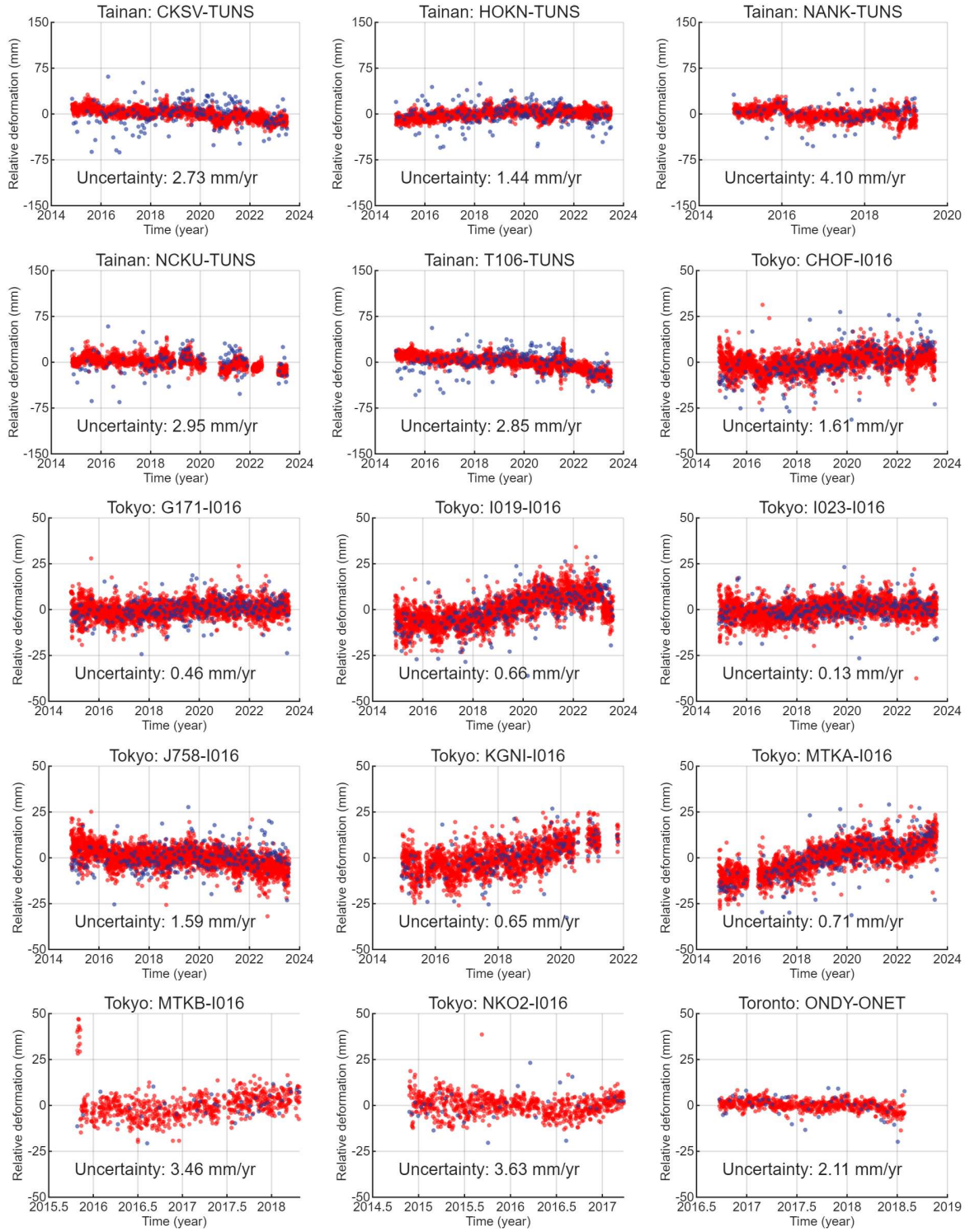












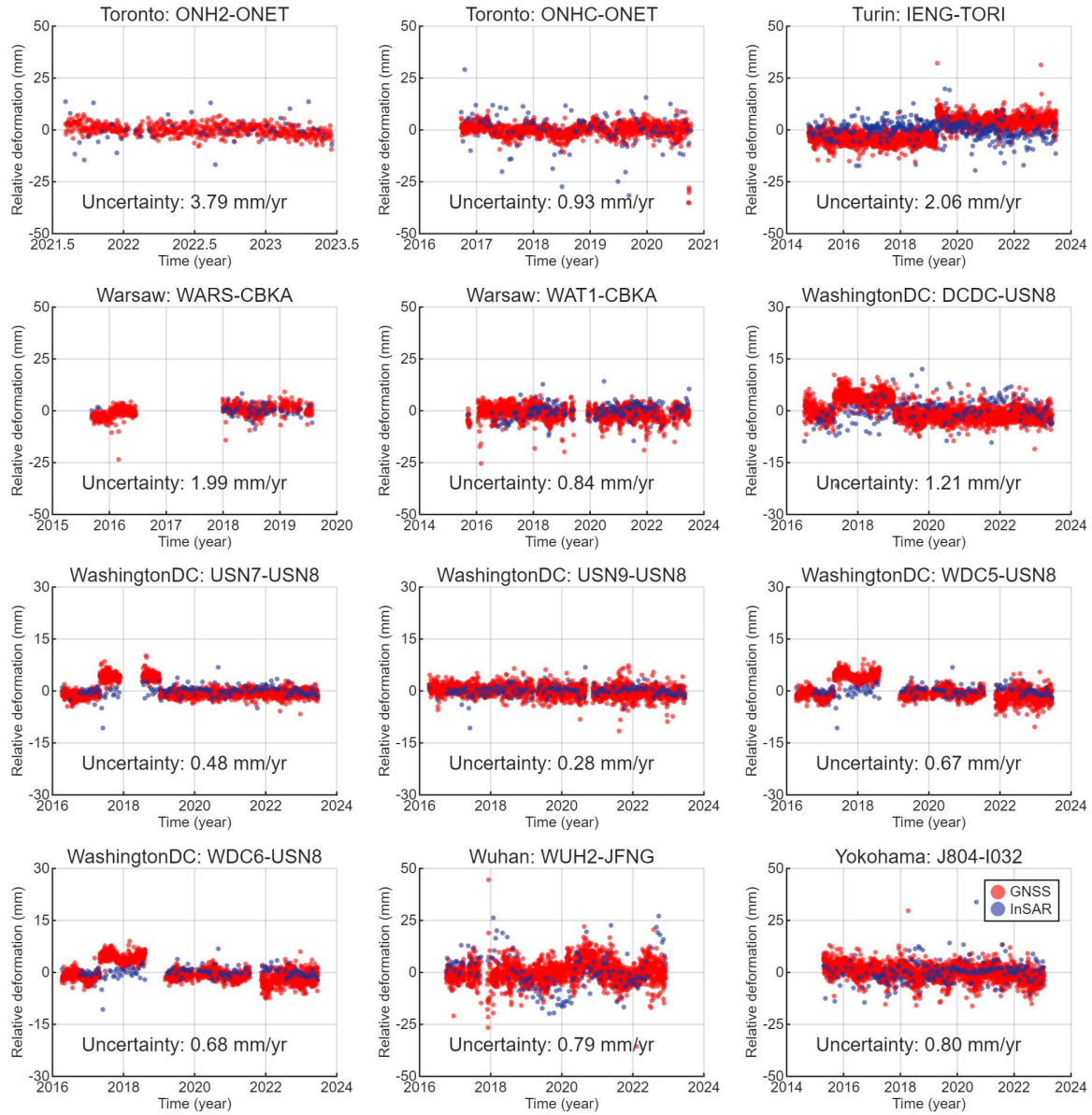


Fig. S4. Comparison between InSAR-derived relative local land subsidence time series and GNSS time series for all validation sites in the line-of-sight (LOS) direction. Blue dots represent the InSAR-derived relative time series, while red dots denote the GNSS-derived relative time series. Note that the GNSS and InSAR observations were anchored to a reference site, with one reference site selected for each city. Title of subfigures show city, paired site and reference site, respectively. Detailed workflow for calculating the relative deformation time series and uncertainty was shown in Fig. S1.

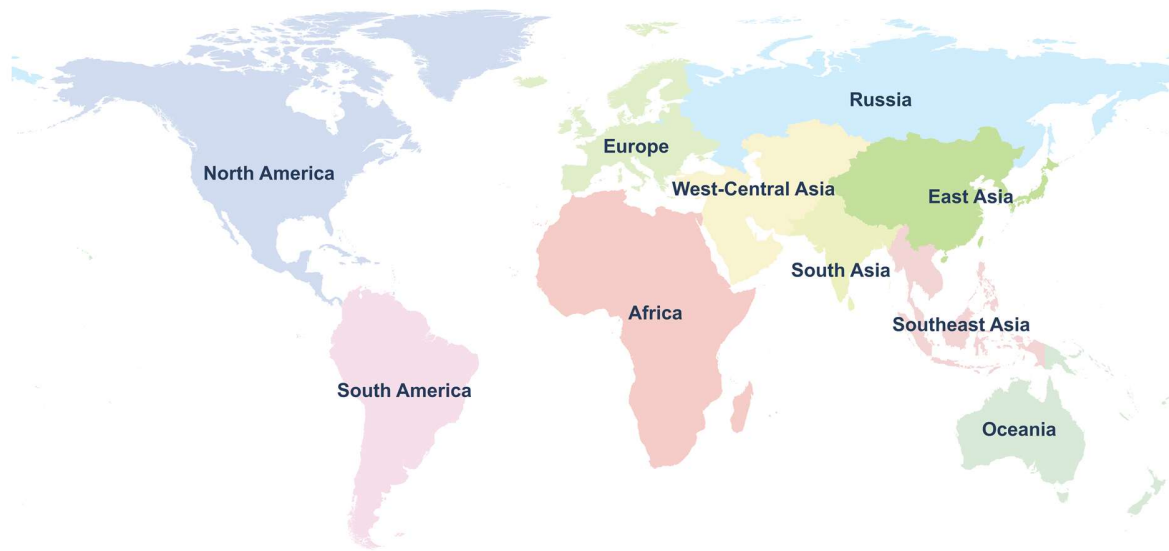


Fig. S5. Spatial locations of the ten regions used in this study.

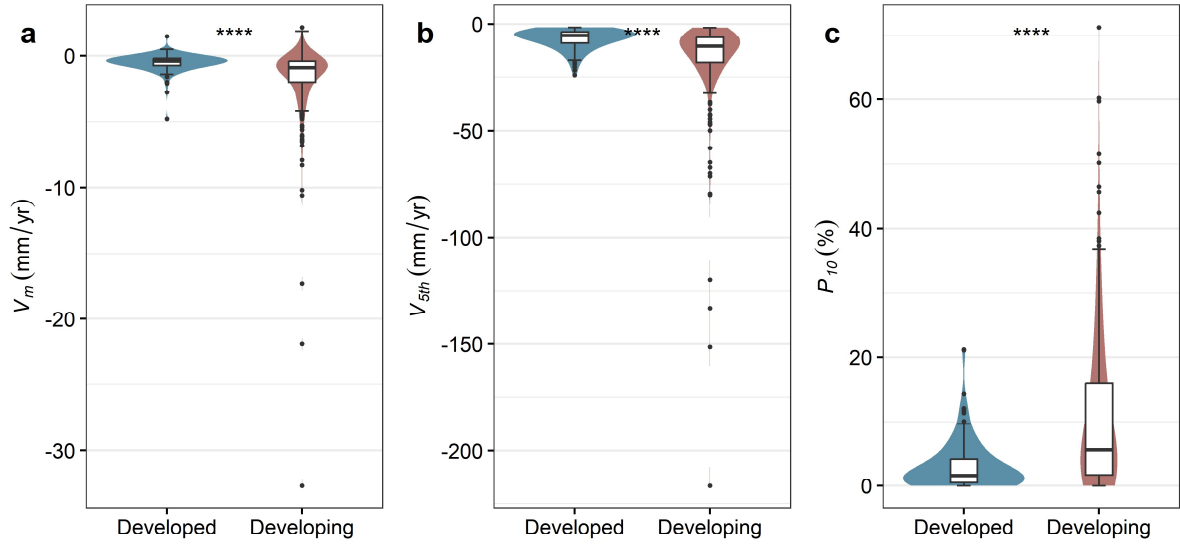


Fig. S6. Variant subsidence conditions (V_m , V_{5th} , and P_{10}) between cities from developed and developing countries. In each boxplot, the thick line represents the median, the edges of the box represent the first and third quartiles (25th and 75th percentiles), the whiskers extend to the minimum and maximum values within 1.5 times the interquartile range, and points outside the whiskers indicate outliers. **** indicates $P < 0.0001$ (Wilcoxon rank-sum test), showing that subsidence differs significantly between cities from developed and developing countries.

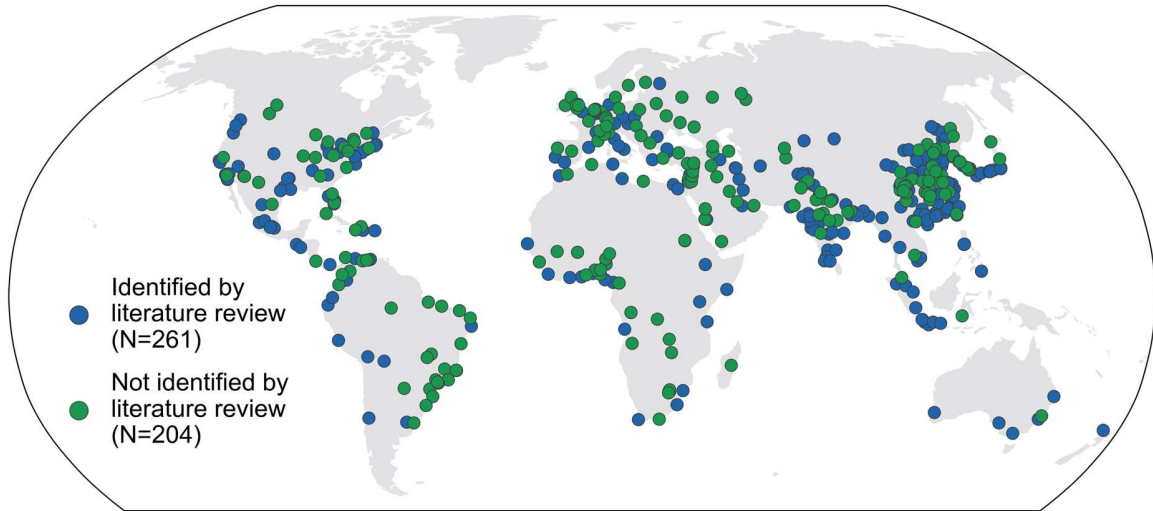
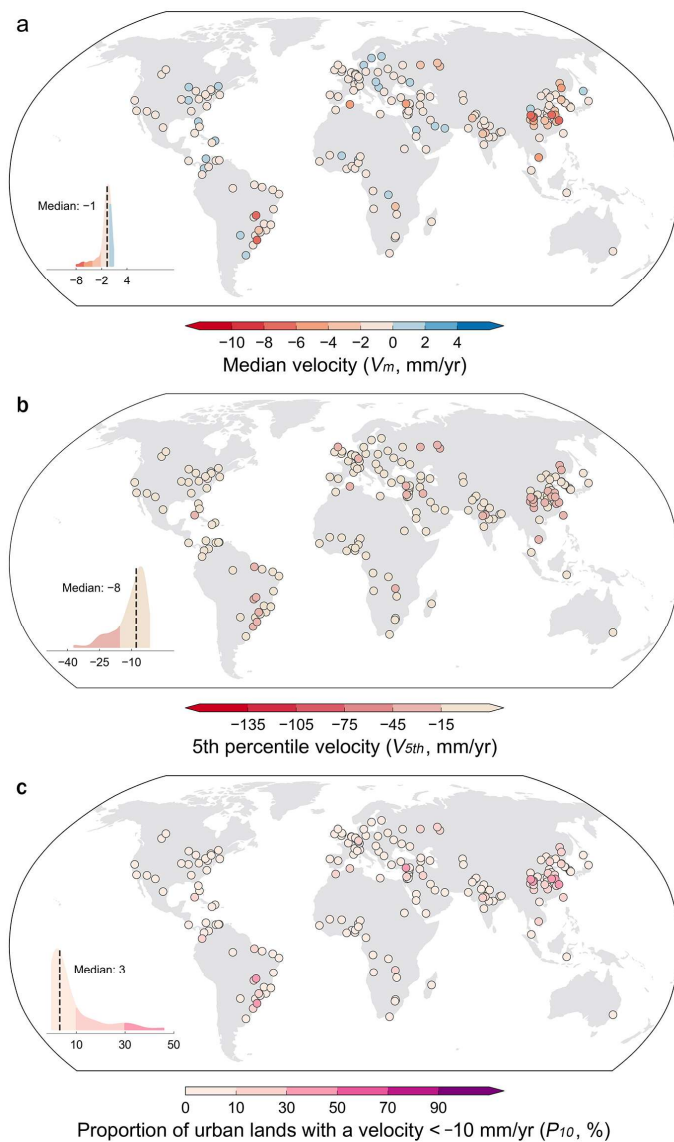


Fig. S7. Spatial distribution of the 465 global major cities included in this study, classified according to whether previous InSAR-based land subsidence studies were identified through our literature review. The literature review was conducted using Google Scholar searches with combinations of the city name, “subsidence”, and “InSAR” as keywords. The corresponding literature information is summarized in Table S3.

InSAR-derived RLLS



VLM-aligned land subsidence

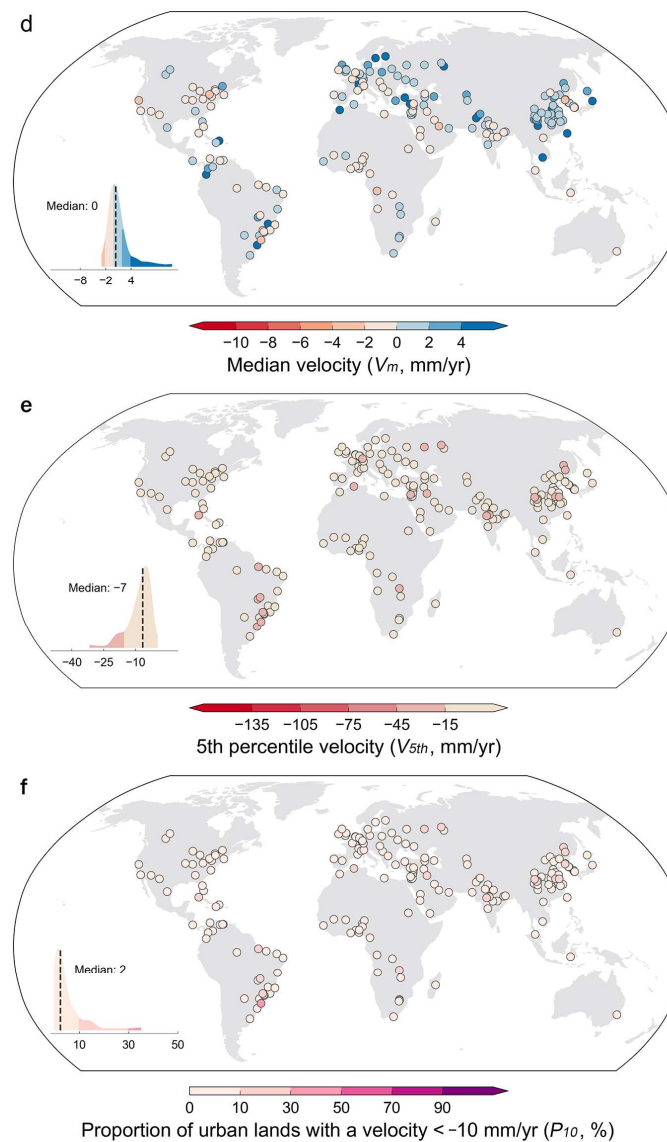


Fig. S8. Patterns of InSAR-derived relative local land subsidence (RLLS) (a–c) and VLM-aligned land subsidence (d–f) (2014–2023) for 204 global major cities that have not been identified by our literature review (Table S3). Other notations are the same as those described in the legend to Fig. 1 in the main text.

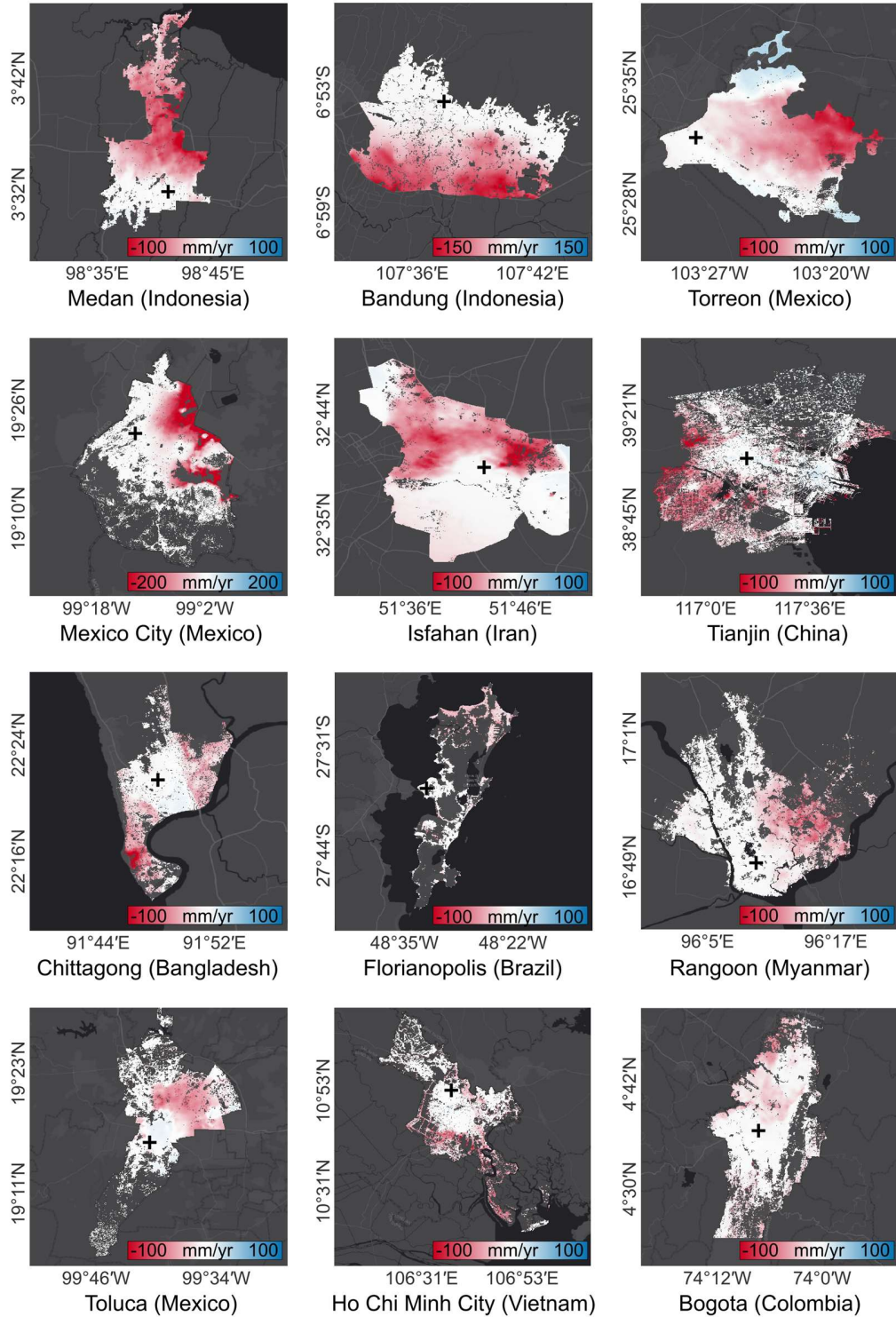


Fig. S9. Relative local land subsidence (RLLS) velocity of typical fast subsiding cities worldwide. The black crosses indicate the locations of reference points. More maps can be viewed at <https://ee-pkurelab.projects.earthengine.app/view/gus>. Basemap sourced from ESRI.

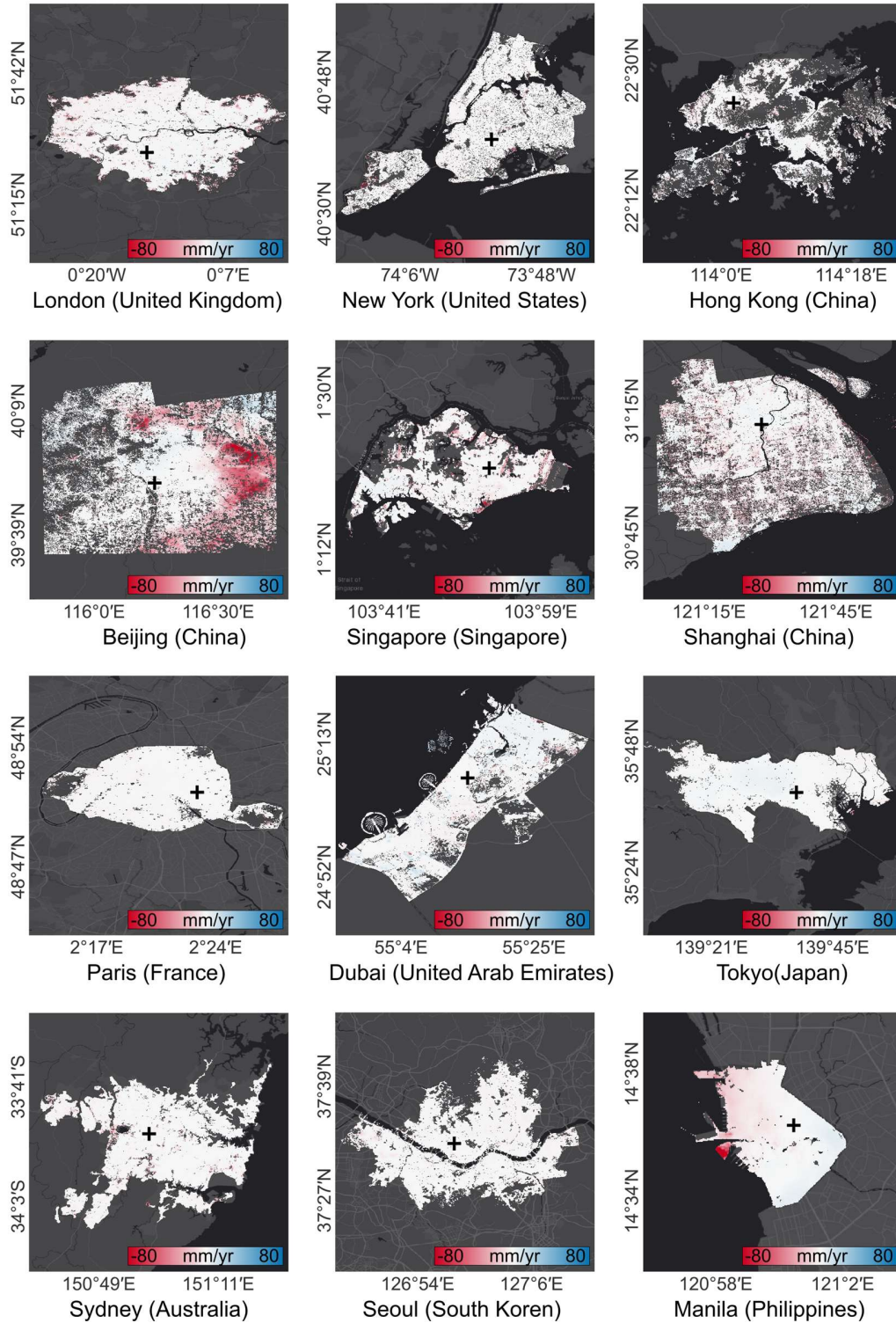
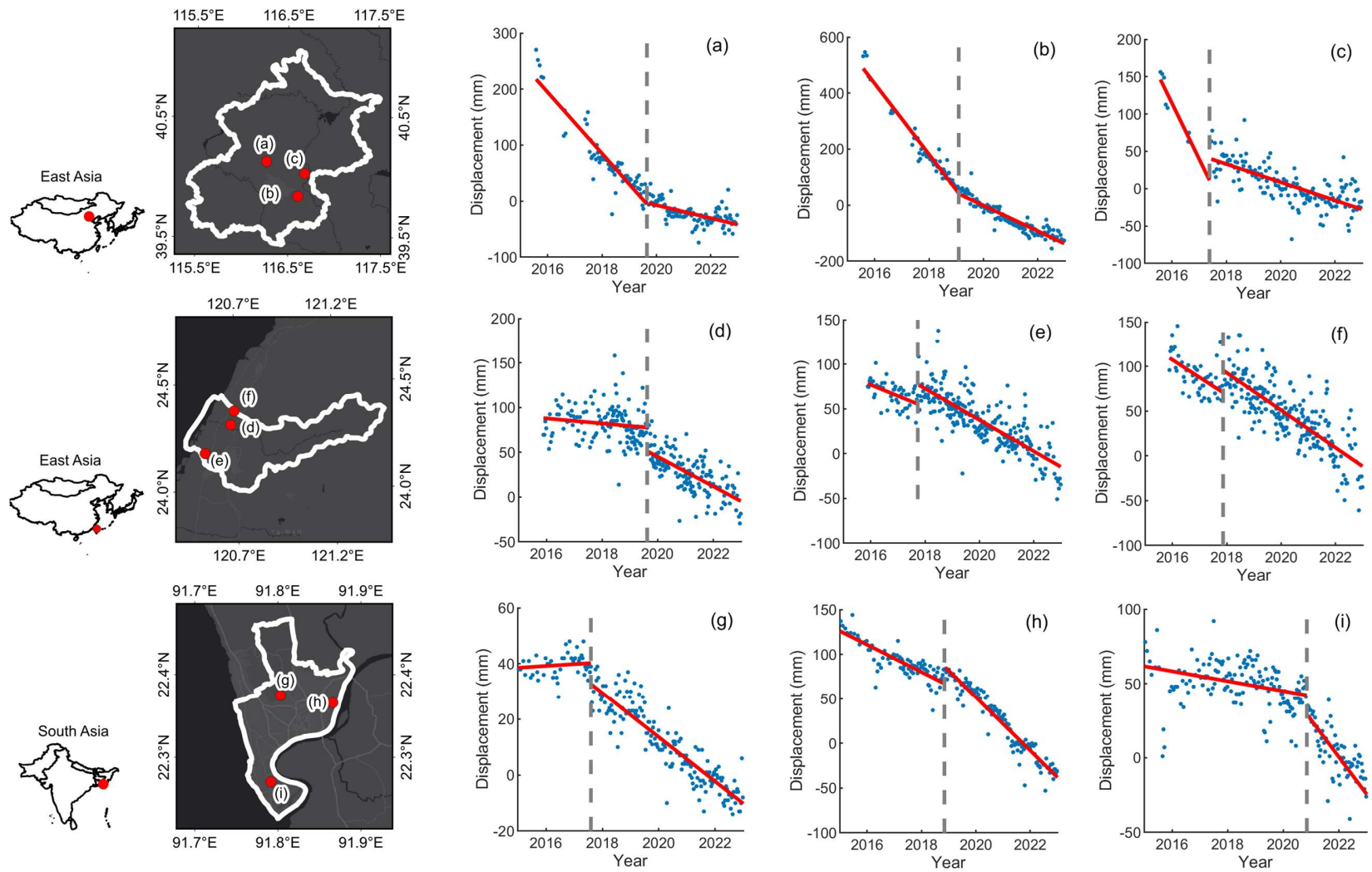


Fig. S10. Relative local land subsidence (RLLS) velocity of typical megacities worldwide. The black crosses indicate the locations of reference points. Basemap sourced from ESRI.



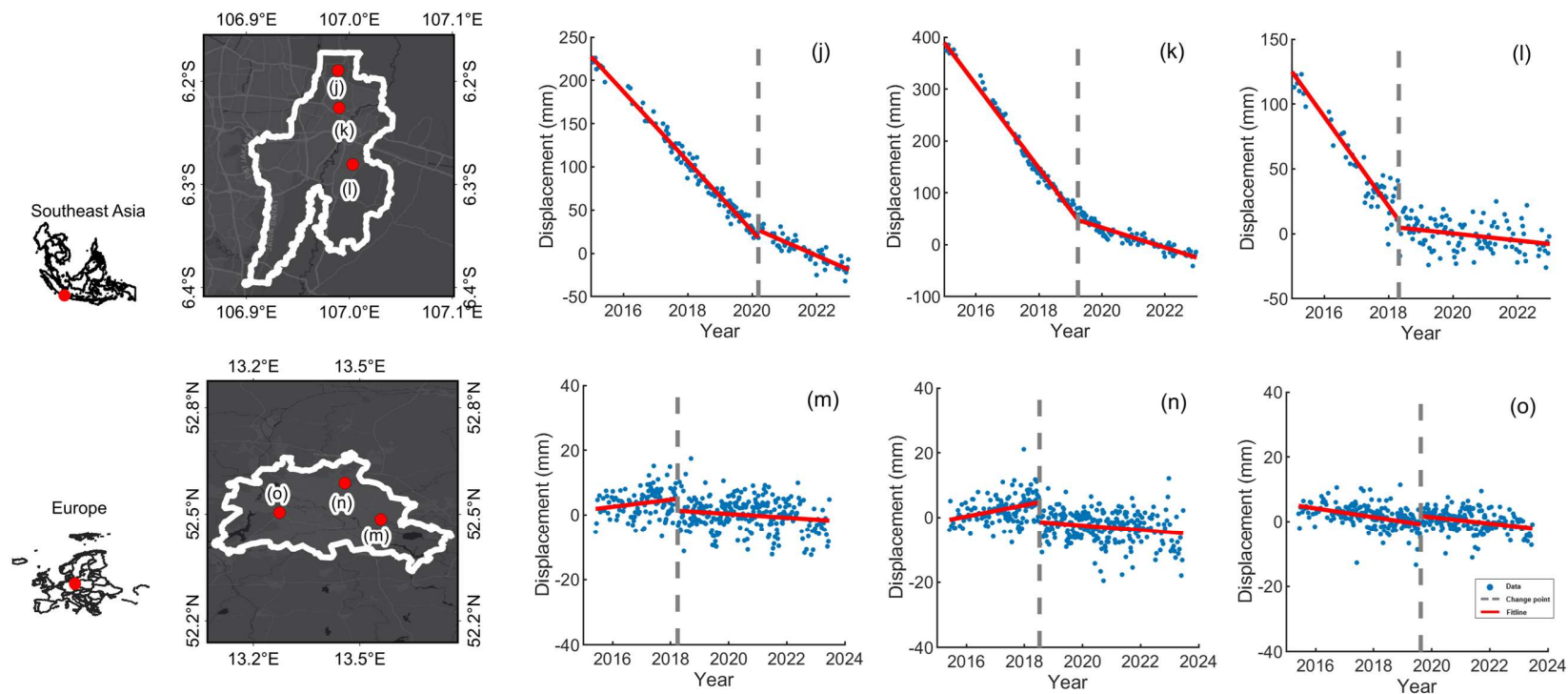


Fig. S11. Examples of acceleration/deceleration in relative local land subsidence (RLLS) time series revealed by the piecewise linear model. Basemap sourced from ESRI.

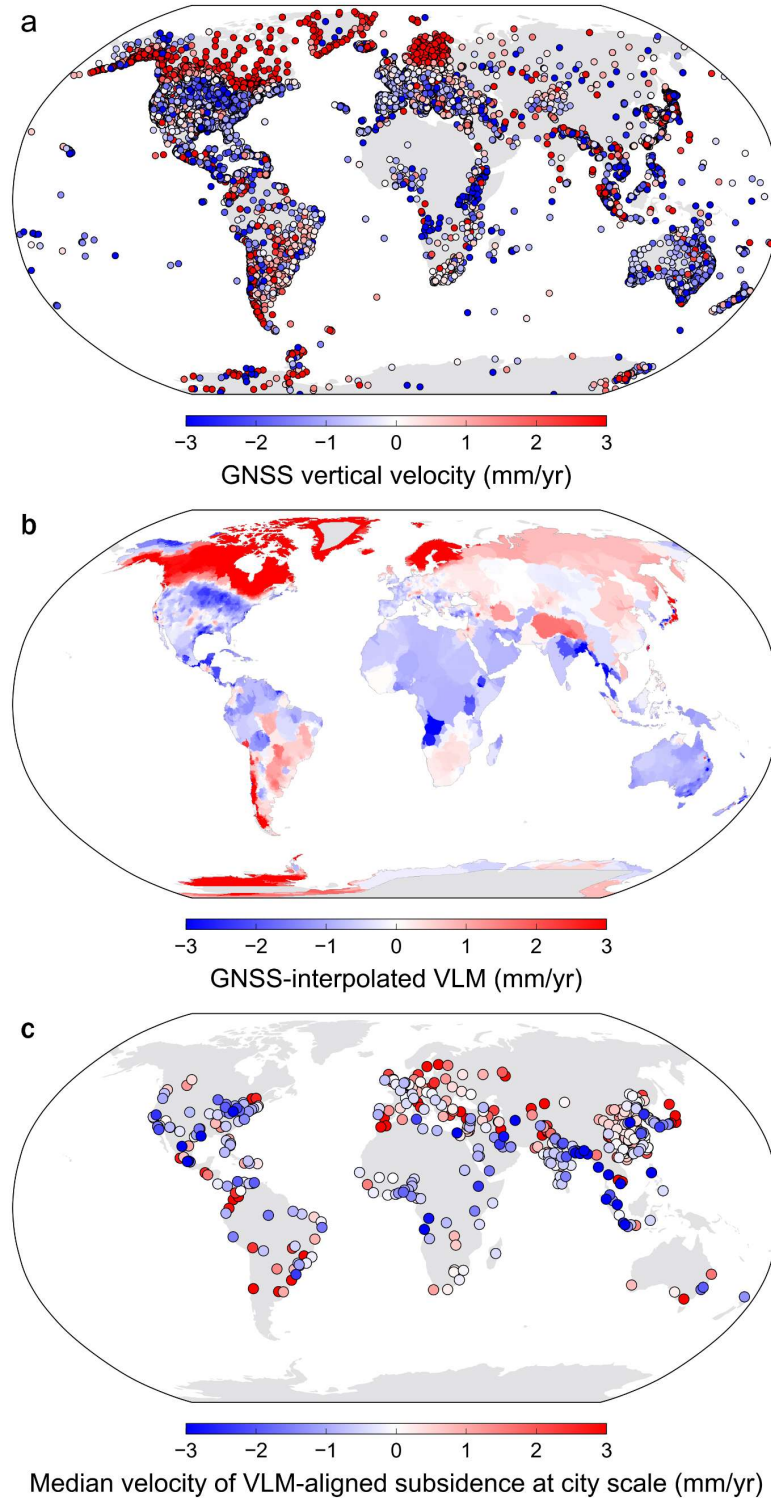


Fig. S12. Vertical land motion (VLM) product derived from GNSS observations and VLM-aligned land subsidence. (a) Vertical velocities at GNSS stations processed by the Nevada Geodetic Laboratory using the MIDAS algorithm⁶⁸. **(b)** Global VLM product interpolated from

GNSS observations⁶⁸. **(c)** Median velocity of subsidence at city scale for 465 global major cities after aligning the RLLS velocity to the VLM product presented in (b). (c) has also been shown in Fig. 1d using a different color bar.

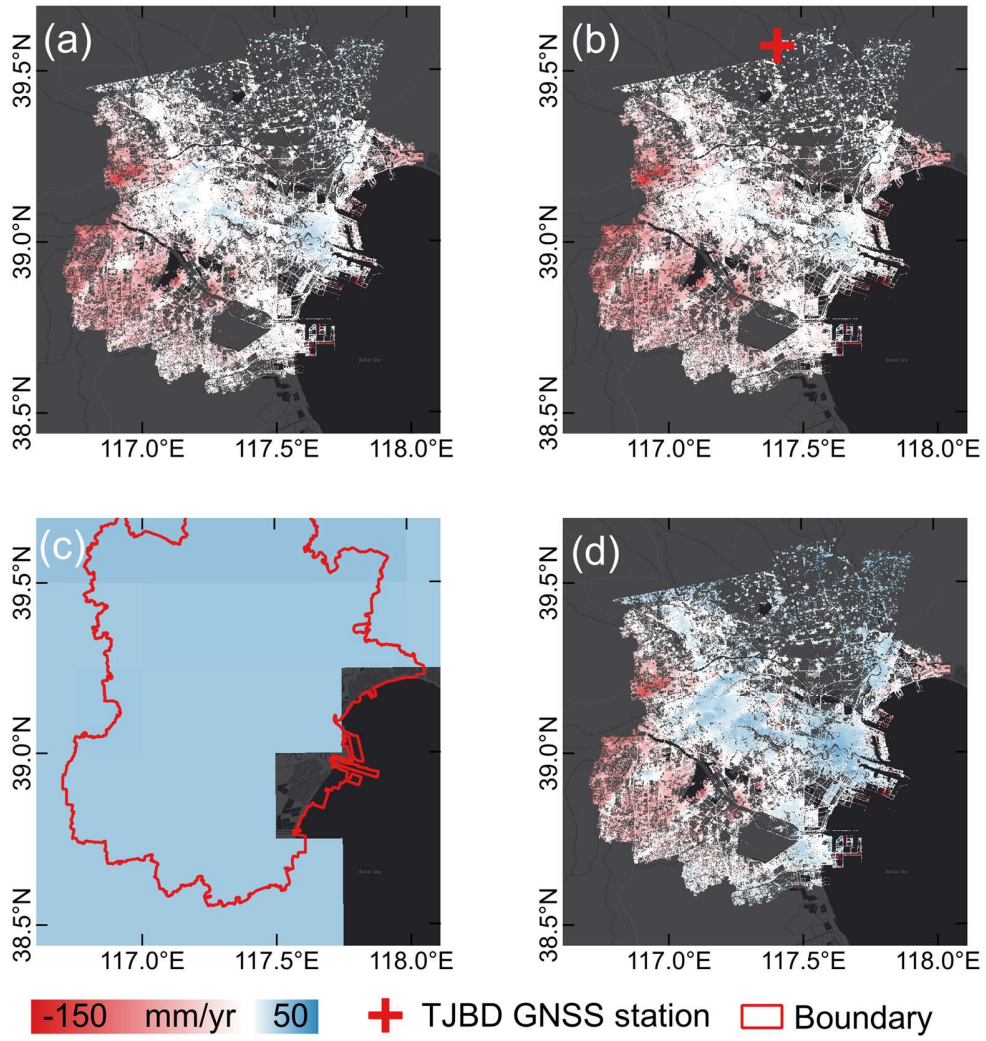


Fig. S13. Case study of Tianjin illustrating uncertainties in VLM-aligned land subsidence. (a) The InSAR-derived RLLS product. (b) GNSS-aligned land subsidence product using TJBD site provided by national earthquake data center, China (<https://eqdsc.com/index.html>). (c) Global VLM product interpolated from GNSS observations⁶⁸. (d) VLM-aligned land subsidence product.

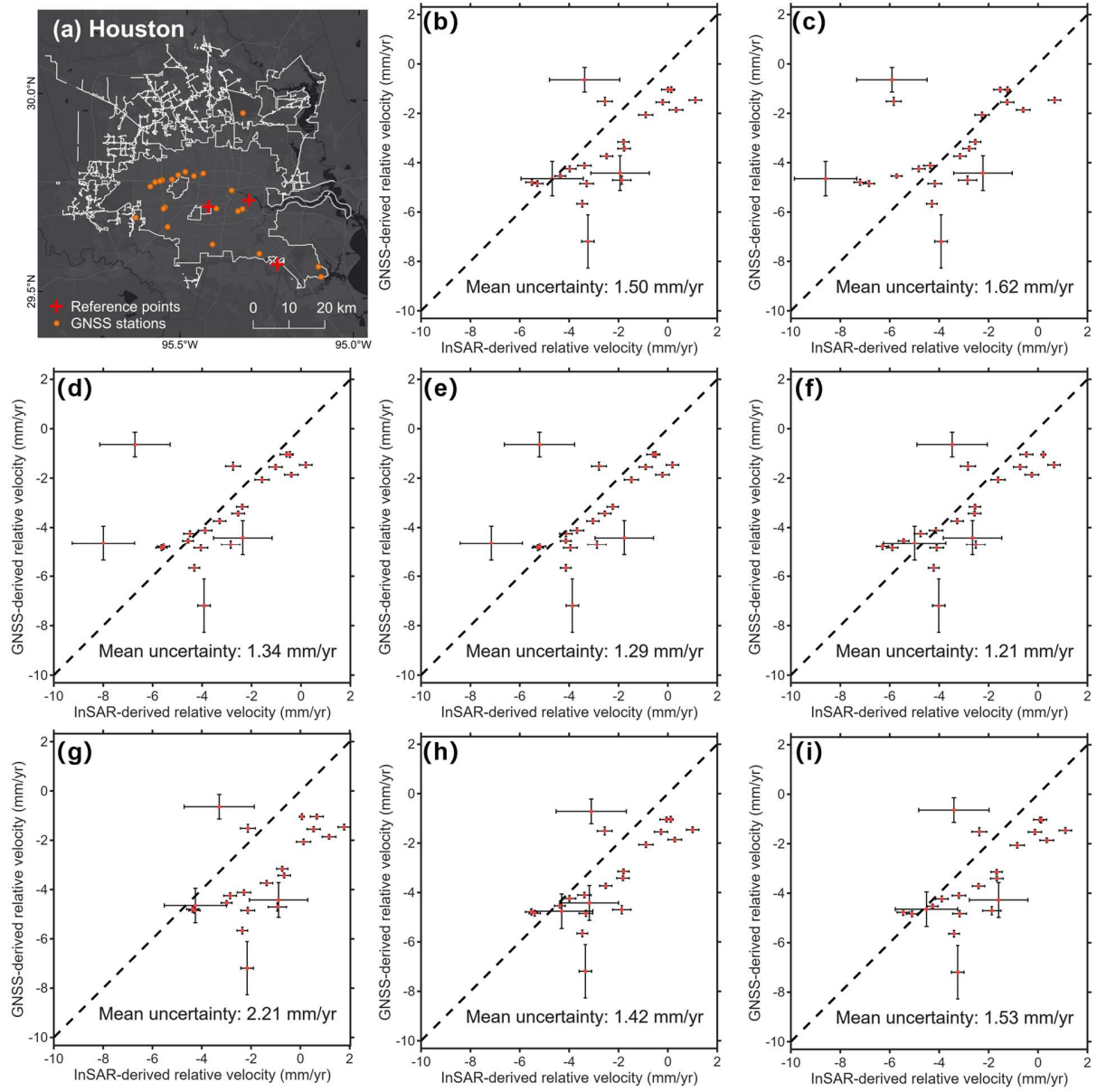


Fig. S14. InSAR uncertainties resulted from different choices of parameters during time-series analysis as exemplified in Houston. (a) The spatial distribution of GNSS stations (dots) and the reference point candidates (crosses) in Houston. (b) The velocity uncertainties with a temporal baseline of 36 days and a coherence threshold of 0.35. (c) to (e) The velocity uncertainties with a temporal baseline of 24, 48, and 64 days, respectively. (f) & (g) The velocity uncertainties when using a coherence threshold 0.30 and 0.40, respectively. (h) & (i) The velocity uncertainties when using different reference point candidates, denoted as crosses in panel a. Detailed parameters are shown in Table S4. Basemap sourced from ESRI.

Table S1. A short review for the different practices of using InSAR-derived subsidence velocities in previous studies. InSAR velocities may be expressed either relative to a local reference point or tied to a geodetic reference frame, depending on study objectives.

Publications	Study areas	Reference strategies	Methods
Tay C, Lindsey E O, Chin S T, et al. Sea-level rise from land subsidence in major coastal cities[J]. <i>Nature Sustainability</i> , 2022, 5(12): 1049-1057.	48 global coastal cities	local reference points	Subsidence velocities for each city are relative to a local point in that city
Wu P C, Wei M, D'Hondt S. Subsidence in coastal cities throughout the world observed by InSAR[J]. <i>Geophysical Research Letters</i> , 2022, 49(7): e2022GL098477.	99 global coastal cities	local reference points	Subsidence velocities for each city are relative to either a GNSS point in that city or a small area outside of the urban area
Ohenhen L O, Shirzaei M, Ojha C, et al. Disappearing cities on US coasts [J]. <i>Nature</i> , 2024, 627(8002): 108-115.	32 US coastal cities	IGS14 global frame	InSAR derived velocities and GNSS observations are fused via a stochastic model
Ohenhen L O, Zhai G, Lucy J, et al. Land subsidence risk to infrastructure in US metropolises[J]. <i>Nature Cities</i> , 2025: 1-12.	28 most populous US cities	IGS14 global frame	InSAR derived velocities are aligned to the IGS14 global frame using an affine transformation model and GNSS data
Ohenhen L O, Shirzaei M, Ojha C, et al. Hidden vulnerability of US Atlantic coast to sea-level rise due to vertical land motion[J]. <i>Nature Communications</i> , 2023, 14(1): 2038.	US Atlantic coast	IGS14 global frame	InSAR derived velocities and GNSS observations are fused via a stochastic model
Haghshenas Haghighi M, Motagh M. Uncovering the impacts of depleting aquifers: A remote sensing analysis of land subsidence in Iran[J]. <i>Science Advances</i> , 2024, 10(19): eadk3039.	Iran	local reference points	Improved SBAS-InSAR Method
Xiong Z, Feng G, Yang Z, et al. Nationwide mapping and characterization of land subsidence in the United States using InSAR[J]. <i>Remote Sensing of</i>	CONUS	local reference points	Each InSAR derived velocity map are aligned to a reference point within the map, and block adjustment was applied

Environment , 2026, 333: 115134.			to reduces discrepancies between maps
Ao Z, Hu X, Tao S, et al. A national-scale assessment of land subsidence in China's major cities[J]. Science , 2024, 384(6693): 301-306.	82 major cities in China	local reference points	Subsidence velocities for each city are relative to either a local stable point in that city
Thiéblemont R, Le Cozannet G, Nicholls R J, et al. Assessing current coastal subsidence at continental scale: Insights from Europe using the European Ground Motion Service[J]. Earth's Future , 2024, 12(8): e2024EF004523.	European coastal zones	ITRF14 global frame	InSAR derived velocities are tied to geocentric reference frame using the Augmented EUREF Permanent Network (A-EPND) model derived from GNSS data
Blackwell E, Shirzaei M, Ojha C, et al. Tracking California's sinking coast from space: Implications for relative sea-level rise[J]. Science advances , 2020, 6(31): eaba4551.	California coastline	NA12 reference frame	InSAR derived velocities are aligned to the NA12 frame using an affine transformation model and GNSS data
Govorcin M, Bekaert D P S, Hamlington B D, et al. Variable vertical land motion and its impacts on sea level rise projections[J]. Science Advances , 2025, 11(5): eads8163.	California	ITRF14 global frame	Using GNSS data to transform InSAR derived velocities into a standard geodetic reference frame
Sadhasivam N, Ohenhen L, Khorrami M, et al. Building damage risk in sinking Indian megacities[J]. Nature Sustainability , 2025: 1-13.	5 Indian megacities	IGS14 global frame	InSAR derived velocities are tied to the IGS14 reference frame based on the available GNSS data
Zhu Q, Wu P C, Wei M, et al. Vertical Land Motion and Human Exposure Across India's Coastal Regions[J]. Geophysical Research Letters , 2026, 53(4): e2025GL120539.	Indian coastal zones	ITRF14 global frame	Using GNSS data to transform InSAR derived velocities into a standard geodetic reference frame
Chaussard E, Havazli E, Fattahi H, et al. Over a century of sinking in Mexico City: No hope for significant elevation and storage capacity recovery[J]. Journal of Geophysical Research: Solid	Mexico City	local reference points	Subsidence velocities are relative to a local point, following the standard workflow of MintPy

Earth, 2021, 126(4): e2020JB020648.

Fiaschi S, Allison M A, Jones C E. Vertical land motion in Greater New Orleans: Insights into underlying drivers and impact to flood protection infrastructure[J]. Science Advances, 2025, 11(26): eadt5046.	Greater New Orleans, US	local reference points	SqueeSAR Method
Shastri A, Sreejith K M, Agrawal R, et al. Variability in vertical land motion along SW Indian coast: implications for inundation hazards due to sea-level rise[J]. Natural Hazards, 2025, 121(7): 8159-8178.	south-western Indian coast	local reference points	SBAS-InSAR Method
Wang Y, Gong H, Zhou C, et al. Decomposition and attribution analysis of the coupled evolution characteristics of groundwater and land subsidence in the Beijing-Tianjin-Hebei Plain[J]. Journal of Hydrology: Regional Studies, 2025, 59: 102393.	Beijing-Tianjin-Hebei Plain, China	local reference points	SBAS-InSAR Method
Shi M, Gao M, Chen Z, et al. Land subsidence in Beijing: response to the joint influence of the South-to-North Water Diversion Project and ecological water replenishment, observed by satellite radar interferometry[J]. GIScience & Remote Sensing, 2024, 61(1): 2315708.	Beijing, China	local reference points	SBAS-InSAR Method
Wang K, Wang G, Bao Y, et al. Preventing subsidence reoccurrence in Tianjin: new preconsolidation head and safe pumping buffer[J]. Groundwater, 2024, 62(5): 778-794.	Tianjin, China	NChina20 Reference Frame	Aligned the InSAR-derived subsidence time series to the Stable North China Reference Frame 2020 (NChina20), guided by the GPS-derived vertical displacement time series
Zhang X, Hu J, Motagh M, et al. Groundwater	North China plain	local reference	Each InSAR derived velocity map are

volume loss and land subsidence in the North China plain investigated using wide-area InSAR surveying and mechanical modeling[J]. Remote Sensing of Environment, 2026, 333: 115164.		points	aligned to a reference point within the map, and block adjustment was applied to reduces discrepancies between maps
Wang Y, Feng G, Li Z, et al. A multi-frame deformation velocity splicing method for wide-area InSAR measurement based on uncontrolled block adjustment: A case study of long-term deformation monitoring in Guangdong, China[J]. Remote Sensing of Environment, 2024, 301: 113929.	Guangdong, China	local reference points	Each InSAR derived velocity map are aligned to a reference point within the map, and block adjustment was applied to reduces discrepancies between maps
Murray K, Barbee M, Thompson P, et al. Coastal land subsidence accelerates timelines for future flood exposure in Hawai'i[J]. Communications Earth & Environment, 2025, 6(1): 123.	Hawaii, US	IGS14 global frame	Using vertical displacements measured by continuous GNSS sites as a baseline to reference InSAR time series
Shirzaei M, Bürgmann R. Global climate change and local land subsidence exacerbate inundation risk to the San Francisco Bay Area[J]. Science advances, 2018, 4(3): eaap9234.	San Francisco Bay, US	NA12 reference frame	Using 1D conformal transformation to transfer the vertical velocities from the central local reference frame relative to GNSS station LUTZ into a stable North America reference frame (NA12)

Table S2. Detailed information for the source data, processing parameters, and subsidence severity of the 465 major cities. This table listed the status of urban subsidence (V_m , V_{5th} , P_{10} and composite severity score) derived from RLLS and VLM-aligned subsidence maps, the offset parameter used to align RLLS to the VLM product derived from GNSS observations, SAR image acquisitions, geographic locations of reference points and coherence thresholds used in InSAR data processing, median velocity standard deviation, median average spatial coherence and valid-pixel coverages for each city.

City Lon. (°E) Lat. (°N)			Country Region Developed Country Flag			RLLS				VLM-aligned				Offset parameter used to tie RLLS (mm/yr)	Orbit direction (Descending / Ascending) Paths Frames Observation time span Number of SAR images Number of interferogram s						Reference point Lon.(°E) Reference point Lat.(°N) Coherence threshold			Median velocity standard deviation (mm/yr) Median average spatial coherence [0,1] Valid- Pixel coverage (%)		
						V_m (mm/ yr)	V_{5th} (mm/ yr))	P_{10} (%)	Composi te severity score [0,100]	V_m (mm /yr)	V_{5th} (mm/ yr))	P_{10} (%)	Composi te severity score [0,100]													
Abbottabad	73.23	34.18	Pakistan	South Asia	0	-3.6	-32.6	24.0	92.6	3.4	-25.5	12.8	63.0	7.0	ASCENDING	100	106-109	20150410_20230615	213	639	73.21433	34.14699	0.30	0.40	0.88	96.50
Abidjan	-3.97	5.34	Ivory Coast	Africa	0	-0.8	-8.4	3.6	50.3	-0.1	-7.7	3.2	52.0	0.7	ASCENDING	118	1196-1198	20151113_20230628	349	1725	-4.01084	5.43586	0.35	0.25	0.86	15.40
Abuja	7.47	9.06	Nigeria	Africa	0	-0.7	-9.0	4.3	51.3	-0.8	-9.1	4.3	65.2	-0.1	ASCENDING	30	1209-1211	20151026_20230622	225	857	7.52050	9.04292	0.35	0.63	0.82	35.30
Accra	-0.22	5.64	Ghana	Africa	0	-0.5	-3.6	0.6	22.4	-0.4	-3.4	0.6	32.5	0.2	ASCENDING	147	13-14	20150531_20230630	195	751	-0.19980	5.58479	0.30	0.31	0.83	91.20
Ad Damman	50.10	26.42	Saudi Arabia	West-Central Asia	0	0.1	-4.9	1.1	19.0	-2.3	-7.2	2.0	59.1	-2.3	ASCENDING	101	81-82	20160603_20230627	209	606	50.09141	26.39385	0.30	0.55	0.88	69.60
Adana	35.33	37.00	Turkey	West-Central	0	-4.8	-24.8	31.1	93.8	13.4	-6.6	3.0	30.4	18.2	DESCENDING	94	466-469	20151112_20220421	341	670	35.30940	37.00666	0.30	0.27	0.88	93.80

			Asia																							
Addis Ababa	38.76	8.99	Ethiopia	Africa	0	-2.2	-12.3	8.5	72.4	-2.4	-12.5	9.1	81.6	-0.2	DESCENDING	79	562-564	20150608_20230626	212	778	38.73074	9.03282	0.35	0.18	0.87	66.40
Adelaide	138.60	-34.89	Australia	Oceania	1	-0.2	-8.4	3.6	38.6	0.2	-8.1	3.4	50.5	0.3	DESCENDING	162	705-707	20150601_20230619	218	819	138.56512	-35.01296	0.35	0.37	0.90	95.00
Agra	78.01	27.19	India	South Asia	0	-0.9	-4.5	0.2	29.3	-0.5	-4.1	0.2	32.5	0.4	DESCENDING	63	501-503	20141022_20230625	214	994	78.06233	27.21844	0.35	0.15	0.81	76.60
Ahmedabad	72.59	23.05	India	South Asia	0	-0.6	-14.0	8.9	61.6	1.3	-12.1	6.9	54.4	1.9	DESCENDING	34	513-515	20150301_20230623	180	873	72.55053	23.02554	0.35	0.25	0.91	56.70
Aleppo	37.17	36.21	Syria	West-Central Asia	0	-0.5	-7.3	1.5	37.4	-0.8	-7.6	1.7	53.8	-0.3	ASCENDING	14	113-115	20150603_20230621	398	2052	37.13696	36.20967	0.35	0.29	0.94	93.90
Alexandria	29.90	31.13	Egypt	Africa	0	-5.6	-27.9	32.1	95.2	-3.2	-25.5	26.3	95.6	2.4	DESCENDING	65	488-490	20141010_20230625	399	1409	29.96091	31.22832	0.35	0.22	0.87	68.30
Algiers	3.09	36.69	Algeria	Africa	0	-4.2	-25.0	27.5	92.7	1.2	-19.6	13.7	67.4	5.4	DESCENDING	37	469-471	20151214_20230623	385	2073	3.13932	36.72911	0.35	0.25	0.88	92.40
Almaty	76.90	43.29	Kazakhstan	West-Central Asia	0	-1.2	-10.3	5.3	61.1	8.1	-1.1	1.0	10.5	9.2	ASCENDING	56	137-139	20141009_20230624	216	628	76.93459	43.26306	0.30	0.33	0.77	55.90
Amman	35.94	31.98	Jordan	West-Central Asia	0	-0.8	-6.6	1.6	41.2	1.4	-4.4	0.9	22.7	2.2	DESCENDING	21	485-486	20151119_20230622	235	580	35.94881	31.90055	0.30	0.34	0.88	95.00
Amsterdam	4.88	52.29	Netherlands	Europe	1	-0.6	-4.8	0.6	27.7	-0.3	-4.5	0.5	34.7	0.3	ASCENDING	161	165-167	20150213_20230619	391	1426	4.83376	52.34606	0.35	0.12	0.77	44.10
Ankang	108.97	32.72	China	East Asia	0	-1.3	-9.1	3.8	56.8	0.3	-7.6	2.4	45.1	1.6	ASCENDING	84	100-104	20150620_20230614	204	653	109.0135	32.6861	0.35	0.20	0.78	23.40
Ankara	32.79	39.9	Turkey	West-	0	-1.3	-12.2	8.4	68.0	8.9	-1.9	0.7	9.5	10.3	DESCENDING	65	458-	20150408_20230	393	745	32.7726	39.9492	0.30	0.18	0.89	91.60

		4		Central Asia										NG		460	625			8	1						
Anshan	123.00	41.17		China	East Asia	0	-1.1	-25.0	18.7	80.7	-0.5	-24.4	17.5	85.7	0.6	DESCENDING	3	455-457	20160311_20211221	126	499	122.99094	41.11264	0.35	0.53	0.69	39.10
Antananarivo	47.50	18.90	-	Madagascar	Africa	0	-1.1	-8.6	3.2	52.8	-0.4	-7.9	2.5	53.4	0.7	DESCENDING	93	653-655	20150128_20230627	209	924	47.54299	-18.90648	0.35	0.21	0.89	96.80
Asansol	87.02	23.65		India	South Asia	0	-0.6	-8.0	3.2	44.4	-1.9	-9.2	4.2	69.2	-1.2	ASCENDING	85	72-74	20170317_20230626	188	739	86.95710	23.70356	0.40	0.35	0.76	18.30
Asuncion	-57.54	25.32	-	Paraguay	South America	0	0.2	-5.0	1.2	19.0	1.4	-3.8	0.8	20.1	1.2	DESCENDING	68	676-678	20150514_20230625	180	730	57.58434	-25.28868	0.30	0.17	0.89	78.90
Athens	23.73	37.98		Greece	Europe	1	-0.3	-3.0	0.1	13.1	0.9	-1.7	0.1	13.1	1.3	DESCENDING	7	467-469	20141018_20230621	406	1405	23.73083	37.98850	0.35	0.11	0.97	93.90
Atlanta	-84.38	33.85		United States	North America	1	-0.1	-6.3	3.9	33.5	-0.6	-6.8	4.0	57.7	-0.5	ASCENDING	121	104-106	20151020_20230628	205	720	84.36663	33.76940	0.35	0.49	0.70	33.10
Auckland	174.80	36.89	-	New Zealand	Oceania	1	-0.1	-6.9	2.8	31.7	-1.3	-8.1	3.5	63.9	-1.2	DESCENDING	73	715-716	20141022_20230625	188	556	174.75677	-36.88560	0.30	0.23	0.79	38.30
Aurangabad	75.31	19.88		India	South Asia	0	-3.7	-19.0	20.4	87.7	0.1	-15.1	11.4	71.0	3.9	DESCENDING	136	525-527	20161004_20230630	176	709	75.34381	19.88861	0.35	0.45	0.76	54.10
Austin	-97.76	30.36		United States	North America	1	-0.2	-7.1	2.8	34.1	-1.0	-8.0	3.3	61.9	-0.8	ASCENDING	107	93-95	20150318_20230628	194	568	97.72145	30.27814	0.30	0.42	0.67	65.40
Baghdad	44.40	33.33		Iraq	West-Central Asia	0	-1.1	-21.9	14.1	77.5	-0.2	-21.0	13.0	79.5	0.9	ASCENDING	72	102-104	20141010_20230625	382	1274	44.35119	33.24399	0.30	0.20	0.92	94.30

Baku	49.91	40.46	Azerbaijan	West-Central Asia	0	-0.7	-6.6	2.1	41.0	2.3	-3.6	1.2	19.2	2.9	ASCENDING	28	127	20161113_20230622	198	571	49.91915	40.39100	0.30	0.67	0.91	94.90
Baltimore	-76.66	39.25	United States	North America	1	-0.4	-2.9	0.2	16.3	-1.1	-3.6	0.2	35.3	-0.7	ASCENDING	4	124-126	20150825_20230620	192	686	-76.64506	39.29450	0.35	0.18	0.81	65.30
Bamako	-7.98	12.62	Mali	Africa	0	-0.6	-5.9	2.0	37.1	-0.1	-5.4	1.8	41.4	0.5	ASCENDING	16	1217-1219	20150404_20230621	244	951	-7.99930	12.60652	0.30	0.22	0.87	87.30
Bandung	107.66	-6.97	Indonesia	Southeast Asia	0	-21.9	-119.8	59.7	99.6	-16.7	-114.5	54.5	99.6	5.2	ASCENDING	98	1153-1156	20141012_20230627	221	589	107.62657	-6.88785	0.30	0.61	0.86	84.40
Bangalore	77.61	12.97	India	South Asia	0	-1.1	-11.2	6.6	62.9	-0.4	-10.6	5.7	65.9	0.7	DESCENDING	165	548-550	20150708_20230620	230	913	77.52914	12.96643	0.35	0.25	0.76	63.90
Bangkok	100.54	13.74	Thailand	Southeast Asia	0	-1.4	-13.1	8.4	70.0	-3.3	-15.0	11.9	87.1	-1.9	DESCENDING	62	544-547	20141021_20230624	179	575	100.56769	13.78242	0.30	0.40	0.82	69.60
Baoding	115.49	38.87	China	East Asia	0	-2.0	-24.0	19.2	86.1	0.9	-21.1	14.1	70.1	2.9	ASCENDING	142	121-124	20151127_20230630	197	749	115.45151	38.90325	0.35	0.29	0.78	58.40
Baotou	109.85	40.63	China	East Asia	0	1.1	-7.9	3.6	31.0	1.3	-7.7	3.5	41.9	0.2	ASCENDING	11	126-130	20150615_20220509	162	587	110.04263	40.67328	0.30	0.25	0.81	63.80
Barcelona	2.13	41.47	Spain	Europe	1	-0.9	-7.3	2.7	47.7	0.4	-5.9	2.0	38.7	1.3	DESCENDING	110	453-455	20150610_20230628	398	1468	2.15721	41.40203	0.40	0.14	0.90	78.40
Barquisimeto	-69.37	10.05	Venezuela	South America	0	-0.2	-3.3	0.6	15.7	-0.6	-3.7	0.7	36.6	-0.4	ASCENDING	106	1213-1215	20150305_20211216	166	605	-69.33401	10.08888	0.35	0.39	0.89	97.80
Barranquilla	-74.81	10.96	Colombia	South America	0	0.1	-6.8	2.8	28.9	-1.9	-8.7	3.9	67.9	-2.0	DESCENDING	142	554-556	20150507_20230630	214	745	-74.79022	10.95137	0.30	0.26	0.92	57.20
Beijing	116.37	39.92	China	East Asia	0	-1.9	-40.3	30.2	90.3	0.4	-38.0	26.6	78.2	2.3	ASCENDING	142	124-127	20150730_20221220	171	505	116.24384	39.85958	0.30	0.93	0.72	58.60

Beirut	35.59	33.92	Lebanon	West-Central Asia	0	-0.2	-5.2	0.5	20.6	0.4	-4.6	0.4	27.1	0.5	ASCENDING	14	106-108	20141018_20230621	417	1481	35.49894	33.87124	0.30	0.18	0.79	89.00
Bekasi	106.97	-6.29	Indonesia	Southeast Asia	0	-1.1	-22.6	25.5	81.9	-2.5	-24.0	29.8	95.2	-1.5	DESCENDING	47	610-614	20141008_20230331	179	574	106.93901	-6.28466	0.30	0.32	0.88	93.30
Belem	-48.42	-1.39	Brazil	South America	0	-1.6	-16.7	13.3	78.0	-0.9	-15.9	12.0	82.9	0.8	DESCENDING	170	595-598	20160930_20230620	203	789	-48.44012	-1.37082	0.30	0.26	0.87	62.70
Belgrade	20.48	44.82	Serbia	Europe	0	0.2	-3.4	0.3	8.6	-0.5	-4.2	0.4	34.9	-0.8	DESCENDING	153	442-444	20141203_20230619	398	2558	20.48583	44.78590	0.30	0.13	0.87	75.50
Belo Horizonte	-44.01	-19.90	Brazil	South America	0	-0.6	-10.1	5.1	52.3	5.2	-4.2	1.8	20.2	5.8	DESCENDING	53	656-657	20150724_20211213	187	595	-43.94351	-19.87657	0.30	0.31	0.89	89.40
Benghazi	20.11	32.09	Libya	Africa	0	-0.7	-6.7	1.9	40.6	-0.8	-6.8	2.0	53.3	-0.1	ASCENDING	73	99-101	20141115_20230625	411	1431	20.12256	32.07938	0.40	0.16	0.94	95.50
Benin City	5.64	6.34	Nigeria	Africa	0	-0.6	-4.4	0.4	24.6	-0.3	-4.0	0.4	31.5	0.3	ASCENDING	103	1199-1201	20150609_20230627	237	895	5.62813	6.33189	0.35	0.34	0.85	33.60
Benoni	28.26	-26.17	South Africa	Africa	0	0.0	-6.7	2.5	29.6	0.7	-6.0	2.2	37.9	0.7	ASCENDING	116	1090-1092	20150610_20230628	238	912	28.25779	-26.28060	0.35	0.34	0.85	76.50
Benxi	123.73	41.28	China	East Asia	0	-1.5	-13.1	9.4	71.3	1.5	-10.1	5.1	49.0	3.0	DESCENDING	105	454-456	20150609_20211216	167	559	123.81027	41.30694	0.30	0.38	0.67	33.80
Berlin	13.41	52.53	Germany	Europe	1	-0.2	-5.3	2.3	29.0	0.1	-5.0	2.3	40.9	0.3	DESCENDING	168	413-415	20150602_20230620	392	2045	13.36390	52.56342	0.35	0.11	0.89	72.10
Bhilai	81.53	21.26	India	South Asia	0	-0.8	-8.1	3.3	49.0	-2.0	-9.3	4.3	70.4	-1.2	DESCENDING	92	519-521	20161001_20230627	205	829	81.39648	21.21236	0.35	0.15	0.87	26.20
Bhopal	77.44	23.23	India	South Asia	0	-2.8	-22.8	21.0	88.0	0.1	-19.9	15.2	77.2	2.9	DESCENDING	63	511-513	20160929_20230625	185	707	77.43632	23.21637	0.35	0.37	0.74	31.90

Birmingham	-1.96	52.51	United Kingdom	Europe	1	-0.6	-7.9	3.1	43.9	1.3	-6.0	2.1	33.2	1.9	DESCENDING	154	413-415	20150601_20230619	390	1401	-1.87077	52.45013	0.35	0.51	0.63	56.40
Birmingham	-86.79	33.49	United States	North America	1	-0.2	-5.7	2.1	29.6	1.5	-4.0	1.5	23.6	1.6	ASCENDING	19	103-107	20161007_20230609	179	612	-86.83525	33.50602	0.30	0.21	0.91	59.50
Bogota	-74.13	4.66	Colombia	South America	0	-6.3	-28.0	38.1	96.4	3.3	-18.4	13.6	61.9	9.6	DESCENDING	69	575-577	20151110_20230625	193	694	-74.12139	4.61098	0.30	0.27	0.88	67.40
Boston	-71.11	42.32	United States	North America	1	0.1	-2.9	0.2	7.7	0.7	-2.3	0.2	16.5	0.6	ASCENDING	62	132-134	20150817_20230624	205	596	-71.0511	42.3351	0.35	0.23	0.83	63.00
Brasilia	-48.01	-15.86	Brazil	South America	0	-6.8	-22.8	33.6	94.4	-0.5	-16.4	13.1	80.2	6.3	DESCENDING	24	642-644	20161020_20230622	200	729	-48.02471	-15.84321	0.30	0.58	0.60	52.10
Brazzaville	15.32	-4.33	Rep. Congo	Africa	0	-0.9	-12.5	7.3	63.7	-0.7	-12.3	7.0	72.8	0.2	DESCENDING	7	605-607	20150802_20230621	218	440	15.27928	-4.25187	0.40	0.20	0.89	55.90
Bridgeport	-73.16	41.24	United States	North America	1	-0.2	-3.6	0.7	17.3	-0.8	-4.3	0.8	41.0	-0.6	ASCENDING	135	131-132	20160406_20230629	177	531	-73.19999	41.19456	0.30	0.22	0.79	77.80
Brisbane	153.04	-27.52	Australia	Oceania	1	-0.4	-15.2	9.7	60.1	1.6	-13.2	7.5	55.5	2.0	DESCENDING	147	681-682	20150531_20230630	226	707	153.09668	-27.49127	0.30	0.35	0.81	59.00
Brussels	4.35	50.90	Belgium	Europe	1	-0.8	-6.8	3.0	45.4	1.9	-4.1	2.2	25.5	2.7	ASCENDING	88	162-164	20141116_20230626	408	2090	4.38400	50.85849	0.35	0.12	0.87	78.20
Bucaramanga	-73.13	7.10	Colombia	South America	0	-0.1	-3.2	0.7	14.6	0.0	-3.0	0.6	27.1	0.1	DESCENDING	69	566-568	20141010_20230625	203	774	-73.13080	7.11284	0.40	0.16	0.89	32.80
Bucharest	26.09	44.4	Romania	Europe	0	0.0	-3.9	0.6	14.4	0.9	-3.0	0.5	18.2	0.9	ASCENDING	131	138-	20141014_20230	407	1466	26.1740	44.4091	0.35	0.12	0.90	47.30

		4													G	140	629		9	3						
Budapest	19.09	47.49	Hungary	Europe	0	0.0	-6.3	2.3	28.2	-0.1	-6.3	2.3	46.1	-0.1	ASCENDING	175	151-153	20150602_20230620	395	1782	19.08176	47.50440	0.35	0.17	0.88	69.00
Buenos Aires	-58.45	-34.70	Argentina	South America	0	-0.4	-4.2	1.0	24.2	5.2	1.4	0.3	6.1	5.6	DESCENDING	170	708-709	20160209_20230608	232	1036	-58.41207	-34.61951	0.30	0.22	0.95	94.70
Buffalo	-78.85	42.96	United States	North America	1	-0.1	-4.2	1.0	18.3	-0.8	-4.8	1.2	45.3	-0.7	ASCENDING	4	135-136	20160409_20230620	188	543	-78.86324	42.89715	0.30	0.18	0.81	65.50
Bursa	29.04	40.24	Turkey	West-Central Asia	0	-1.7	-58.1	19.2	87.6	1.6	-54.8	16.2	69.8	3.3	DESCENDING	138	458-459	20151115_20230630	217	611	28.97306	40.22332	0.30	0.30	0.88	88.40
Busan	128.98	35.18	South Korea	East Asia	1	-1.2	-11.9	7.0	65.2	0.9	-9.8	4.8	51.2	2.0	DESCENDING	61	474-476	20150606_20211213	188	539	129.05225	35.14075	0.35	0.40	0.83	34.60
Cairo	31.24	30.04	Egypt	Africa	0	-1.0	-8.5	3.9	53.4	0.6	-6.9	3.0	42.9	1.6	ASCENDING	58	93-95	20150606_20230624	395	1441	31.25695	30.05111	0.35	0.23	0.93	95.00
Calgary	-114.06	51.07	Canada	North America	1	-0.4	-5.6	1.6	31.5	1.2	-4.0	1.1	22.8	1.6	ASCENDING	20	161-163	20150405_20211223	140	494	-114.20362	51.04523	0.30	0.42	0.74	44.70
Cali	-76.51	3.44	Colombia	South America	0	-1.4	-13.2	12.4	73.3	5.6	-6.2	1.8	25.9	7.0	DESCENDING	142	580-581	20150107_20230630	289	954	-76.52542	3.43867	0.30	0.26	0.90	93.10
Campinas	-47.13	-22.94	Brazil	South America	0	-2.9	-18.5	15.2	83.4	-0.6	-16.1	11.1	79.4	2.3	DESCENDING	126	665-667	20160629_20230629	200	762	-47.03842	-22.91504	0.35	0.29	0.85	52.40
Can Tho	105.78	10.03	Vietnam	Southeast Asia	0	-2.0	-20.7	22.2	85.9	-4.8	-23.4	29.9	96.0	-2.8	DESCENDING	18	558	20160329_20230504	181	602	105.76661	10.01449	0.30	0.40	0.57	31.90
Cape Town	18.54	-	South	Africa	0	-2.4	-19.9	20.8	85.9	1.1	-16.4	12.7	64.7	3.5	ASCENDING	131	1066-	20150331_20230	256	912	18.5209	-	0.30	0.42	0.85	61.40

		33.97	Africa											G	1068	629		1	34.01779							
Caracas	-66.91	10.48	Venezuela	South America	0	-0.3	-6.8	1.9	33.0	-1.9	-8.4	3.0	64.9	-1.6	ASCENDING	33	29-30	20150123_20230622	226	714	-66.90948	10.49830	0.30	0.42	0.82	35.30
Casablanca	-7.58	33.55	Morocco	Africa	0	-0.4	-5.3	1.2	29.5	4.0	-0.9	0.4	8.1	4.3	DESCENDING	154	479-481	20150321_20230619	215	533	-7.60766	33.57531	0.30	0.21	0.88	89.90
Changchun	125.30	43.89	China	East Asia	0	-2.1	-15.4	13.5	78.9	0.0	-13.4	9.3	69.2	2.0	DESCENDING	105	445-449	20150209_20220304	167	637	125.25623	43.82545	0.30	0.36	0.63	30.10
Changde	111.68	29.05	China	East Asia	0	-2.8	-15.8	14.5	81.1	0.7	-12.2	7.6	59.4	3.5	ASCENDING	11	89-91	20150802_20230504	176	596	111.69511	29.04590	0.30	0.44	0.60	33.20
Changsha	113.00	28.18	China	East Asia	0	-1.4	-12.2	7.7	68.6	0.2	-10.5	5.5	59.4	1.7	ASCENDING	11	85-89	20151224_20221223	168	633	113.06046	28.14745	0.30	0.45	0.65	39.10
Changwon	128.70	35.21	South Korea	East Asia	1	-0.1	-6.7	2.4	30.4	-0.9	-7.6	2.8	58.6	-0.8	ASCENDING	54	110-112	20150618_20230624	197	742	128.5686	35.2183	0.35	0.37	0.74	29.90
Changzhou	120.04	31.77	China	East Asia	0	-2.0	-20.2	18.6	83.7	-0.6	-18.8	15.5	84.5	1.5	ASCENDING	69	98-100	20151122_20221227	262	795	119.90806	31.81788	0.30	0.45	0.76	57.30
Chelyabinsk	61.42	55.15	Russia	Russia	0	-3.1	-18.3	19.4	86.1	9.3	-5.9	2.5	27.3	12.4	DESCENDING	64	408	20170226_20211214	97	336	61.48107	55.17606	0.30	0.53	0.65	63.30
Chengdu	104.03	30.70	China	East Asia	0	-0.3	-3.9	0.2	16.6	-0.5	-4.2	0.2	32.9	-0.3	ASCENDING	128	94-96	20150729_20221231	201	686	104.04094	30.63647	0.30	0.42	0.77	35.40
Chennai	80.21	13.04	India	South Asia	0	-1.1	-13.4	9.5	68.7	-1.5	-13.9	10.2	82.2	-0.4	DESCENDING	92	549-551	20150727_20230627	230	916	80.24926	13.05587	0.35	0.32	0.88	88.40
Chicago	-87.81	41.81	United States	North America	1	-0.1	-3.2	0.7	14.6	-1.9	-5.0	1.0	48.8	-1.8	ASCENDING	121	135	20170319_20230628	167	625	-87.66763	41.90040	0.30	0.39	0.82	75.30
Chifeng	118.95	42.27	China	East Asia	0	-0.7	-9.3	4.1	51.3	-0.2	-8.8	3.6	56.8	0.5	DESCENDING	149	450-453	20150612_20211207	159	500	118.90156	42.26527	0.30	0.43	0.73	79.20

Chittagong	91.83	22.35	Bangladesh	South Asia	0	-10.2	-46.8	50.2	98.5	-5.9	-42.5	43.9	98.3	4.3	ASCENDING	41	69-71	20151202_20230623	210	982	91.80657	22.36090	0.35	0.52	0.76	60.50
Chongqing	106.52	29.58	China	East Asia	0	-1.4	-13.3	8.7	70.8	0.2	-11.6	6.5	61.4	1.7	ASCENDING	55	89-93	20150101_20201224	133	462	106.56198	29.55526	0.30	0.52	0.68	24.80
Cilacap	109.00	-7.73	Indonesia	Southeast Asia	0	-3.7	-20.4	21.3	88.9	-1.4	-18.1	15.5	88.6	2.2	ASCENDING	25	1153-1154	20141019_20230622	184	584	109.00663	-7.72453	0.30	0.81	0.60	17.70
Cincinnati	-84.48	39.20	United States	North America	1	-0.1	-3.7	0.4	13.3	-1.5	-5.1	0.6	45.9	-1.5	ASCENDING	48	123-125	20150313_20230611	197	684	-84.48266	39.12894	0.35	0.24	0.77	47.90
Ciudad Juarez	-106.42	31.75	Mexico	North America	0	-0.5	-4.4	0.3	22.3	-0.3	-4.2	0.3	31.5	0.2	ASCENDING	49	96-98	20160213_20211213	158	586	-106.48340	31.62816	0.35	0.42	0.95	98.10
Cleveland	-81.66	41.42	United States	North America	1	-0.6	-4.5	0.6	26.7	-2.2	-6.2	1.1	52.9	-1.6	ASCENDING	150	129-131	20150320_20230630	206	558	-81.80811	41.45698	0.30	0.22	0.83	63.40
Coimbatore	76.99	11.02	India	South Asia	0	0.0	-4.8	0.6	17.1	0.0	-4.7	0.6	33.0	0.1	DESCENDING	165	552-554	20150226_20230620	234	977	76.99051	11.05915	0.40	0.22	0.80	83.00
Cologne	6.98	50.95	Germany	Europe	1	-1.1	-10.4	5.3	60.1	1.6	-7.8	3.5	40.8	2.6	ASCENDING	88	162-164	20141116_20230626	407	1473	6.92915	50.95231	0.35	0.13	0.86	61.30
Columbus	-82.99	40.01	United States	North America	1	-0.8	-7.9	3.3	48.7	-4.3	-11.4	6.7	78.2	-3.5	ASCENDING	150	124-126	20150624_20230630	210	720	-82.97485	40.02296	0.30	0.32	0.82	42.10
Conakry	-13.53	9.69	Guinea	Africa	0	-1.2	-6.1	0.7	40.4	1.5	-3.4	0.3	14.9	2.7	ASCENDING	60	1207-1209	20150407_20230624	245	726	-13.60561	9.63586	0.30	0.26	0.87	98.70
Curitiba	-49.27	-25.48	Brazil	South America	0	-0.6	-6.2	2.1	38.1	0.8	-4.7	1.5	30.3	1.5	DESCENDING	126	676	20161120_20230629	198	729	-49.26870	-25.45251	0.30	0.22	0.87	78.90

Daegu	128.58	35.91	South Korea	East Asia	1	-0.2	-2.7	0.2	11.7	-0.7	-3.1	0.2	31.1	-0.5	ASCENDING	54	110-112	20141102_20230624	192	682	128.61696	35.83474	0.30	0.22	0.83	72.80
Daejeon	127.39	36.37	South Korea	East Asia	1	0.2	-4.6	0.5	13.3	-0.3	-5.0	0.6	37.1	-0.5	ASCENDING	127	114-116	20150623_20230629	195	736	127.44189	36.33781	0.35	0.30	0.76	33.20
Dakar	-17.36	14.74	Senegal	Africa	0	-0.9	-6.3	1.4	41.6	-0.3	-5.7	1.1	41.4	0.5	ASCENDING	133	39-41	20150307_20230629	247	746	-17.44961	14.73448	0.30	0.13	0.90	97.20
Dalian	121.64	39.02	China	East Asia	0	-1.3	-10.5	5.7	62.8	0.5	-8.8	3.8	50.1	1.8	ASCENDING	98	123-125	20170318_20230428	262	896	121.80911	39.04480	0.40	0.38	0.84	38.70
Dallas	-96.84	32.84	United States	North America	1	-0.3	-5.2	1.9	29.3	1.5	-3.5	1.4	21.8	1.8	ASCENDING	34	105	20151226_20230623	203	719	-96.81972	32.79906	0.30	0.49	0.71	47.10
Damascus	36.33	33.51	Syria	West-Central Asia	0	-1.0	-5.2	0.6	35.3	-0.7	-4.9	0.5	40.3	0.3	DESCENDING	21	479-481	20151119_20230622	237	590	36.30059	33.50697	0.30	0.24	0.92	98.80
Daqing	125.01	46.57	China	East Asia	0	1.9	-15.2	10.2	49.8	-0.1	-17.2	13.4	76.6	-2.0	DESCENDING	105	435-438	20161007_20221229	182	758	124.89366	46.60801	0.30	0.48	0.53	33.10
Dares Salaam	39.21	-6.83	Tanzania	Africa	0	-0.3	-3.7	0.3	16.5	-0.4	-3.7	0.3	31.0	0.0	ASCENDING	57	1154-1156	20150606_20230624	213	805	39.25202	-6.81041	0.35	0.27	0.84	92.70
Datong	113.23	40.02	China	East Asia	0	-2.9	-21.1	19.1	86.6	1.0	-17.2	11.8	65.7	3.9	ASCENDING	40	125-128	20150617_20221213	196	689	113.30333	40.11967	0.30	0.30	0.79	35.10
Davao	125.63	7.13	Philippines	Southeast Asia	0	-0.4	-10.7	5.7	50.9	-0.4	-10.7	5.7	66.0	0.0	DESCENDING	163	567-570	20141203_20230619	234	744	125.62427	7.10515	0.30	0.41	0.71	24.60
Delhi	77.22	28.61	India	South Asia	0	0.0	-6.0	1.5	25.1	0.6	-5.3	1.3	32.8	0.7	ASCENDING	27	85-87	20150616_20230622	208	790	77.28921	28.68428	0.35	0.44	0.80	51.50
Denver	-104.98	39.73	United States	North America	1	-0.3	-2.8	0.2	13.8	-0.8	-3.3	0.2	32.9	-0.5	DESCENDING	158	461-463	20161005_20230619	198	765	-104.89479	39.76389	0.35	0.21	0.86	72.30

Detroit	-83.13	42.37	United States	North America	1	-0.5	-3.7	0.4	21.1	-0.9	-4.1	0.4	38.1	-0.4	ASCENDING	150	134-136	20150320_20230630	194	753	-83.09432	42.38160	0.30	0.24	0.83	51.40
Dhaka	90.42	23.78	Bangladesh	South Asia	0	-1.1	-20.5	14.3	76.9	-8.6	-27.9	39.2	97.5	-7.5	ASCENDING	114	68-71	20170319_20230628	188	563	90.42817	23.76243	0.30	0.54	0.79	71.20
Dhanbad	86.35	23.74	India	South Asia	0	-0.6	-11.1	5.9	55.3	-2.0	-12.5	7.6	79.6	-1.4	DESCENDING	121	510-512	20150223_20230629	216	947	86.43402	23.78182	0.40	0.18	0.79	35.90
Dnipropetrovsk	35.02	48.51	Ukraine	Europe	0	-0.1	-3.8	0.4	13.5	0.3	-3.4	0.3	22.9	0.4	DESCENDING	167	429-432	20150322_20230620	237	927	35.05294	48.46198	0.35	0.13	0.75	31.20
Doha	51.48	25.28	Qatar	West-Central Asia	0	0.1	-2.4	0.7	10.2	-1.1	-3.6	0.8	40.1	-1.1	DESCENDING	137	508-510	20170321_20230630	173	571	51.42107	25.32377	0.35	0.24	0.92	99.20
Dongguan	113.74	22.99	China	East Asia	0	-0.4	-8.6	3.9	43.9	-0.3	-8.5	3.8	57.6	0.1	ASCENDING	11	67-72	20150615_20221223	206	780	113.7795	22.9931	0.30	0.76	0.80	49.30
Douala	9.73	4.05	Cameroon	Africa	0	-0.7	-8.4	3.6	48.4	0.3	-7.4	2.9	46.1	1.0	ASCENDING	132	1189-1191	20150611_20230629	237	731	9.72727	4.02714	0.30	0.18	0.90	98.50
Dubai	55.30	25.26	The United Arab Emirates	West-Central Asia	0	0.4	-4.2	1.1	15.2	-1.3	-5.9	1.6	52.0	-1.8	DESCENDING	166	508-510	20141029_20230620	202	588	55.23973	25.12810	0.30	0.35	0.83	78.70
Dublin	-6.28	53.34	Ireland	Europe	1	-0.9	-9.6	4.7	57.1	-0.7	-9.4	4.6	65.6	0.1	DESCENDING	125	412-414	20150611_20230629	393	1454	-6.28705	53.36275	0.35	0.14	0.90	78.10
Duisburg	6.77	51.40	Germany	Europe	1	-0.8	-13.3	7.3	63.6	0.4	-12.1	6.3	59.9	1.2	ASCENDING	15	163-165	20150603_20230621	377	1901	6.78132	51.46892	0.35	0.14	0.85	67.30
Durban	30.92	-29.85	South Africa	Africa	0	-0.8	-7.1	2.5	45.4	-0.2	-6.5	2.2	47.5	0.6	ASCENDING	43	1076-1078	20150325_20230623	247	759	31.00730	-29.84009	0.30	0.19	0.74	83.50
Dushanbe	68.77	38.5	Tajikistan	West-	0	-0.9	-5.9	1.5	41.1	1.3	-3.8	0.9	21.0	2.1	ASCENDING	71	123-	20141010_20230	224	664	68.7526	38.5363	0.30	0.22	0.85	71.20

6			Central Asia												G			124		625		0			5					
Dusseldorf	6.79	51.25	Germany	Europe	1	-1.3	-21.8	12.1	78.5	1.2	-19.4	10.1	64.5	2.4	ASCENDING	15	163-165	20150203_20230621	389	1393	6.80280	51.23038	0.35	0.20	0.87	65.50				
Edmonton	-113.49	53.53	Canada	North America	1	-0.7	-6.7	2.4	42.0	0.4	-5.6	1.9	37.3	1.1	ASCENDING	122	171-172	20150331_20230629	140	514	-113.47803	53.53539	0.30	0.39	0.66	51.10				
El Giza	31.21	29.99	Egypt	Africa	0	-1.3	-13.2	7.5	68.1	0.3	-11.6	6.0	60.1	1.6	DESCENDING	167	490-492	20141017_20211221	246	917	31.19415	30.03691	0.35	0.21	0.93	88.00				
Essen	7.03	51.42	Germany	Europe	1	-0.7	-5.1	1.4	35.0	0.0	-4.4	1.2	35.3	0.7	ASCENDING	88	162-164	20141116_20230626	402	1439	7.00890	51.44749	0.35	0.12	0.88	46.20				
Faisalabad	73.10	31.43	Pakistan	South Asia	0	-1.5	-10.7	5.8	65.1	10.8	1.6	0.7	7.9	12.3	DESCENDING	107	487-488	20151008_20230616	214	657	73.05850	31.41795	0.30	0.24	0.81	78.60				
Faridabad	77.29	28.54	India	South Asia	0	-1.1	-7.3	3.0	50.0	1.1	-5.1	2.2	32.4	2.3	DESCENDING	136	495-497	20141015_20230630	214	1090	77.32084	28.40058	0.40	0.19	0.82	62.70				
Fez	-5.01	34.04	Morocco	Africa	0	-0.8	-13.7	10.1	66.9	4.2	-8.7	3.9	39.6	5.1	ASCENDING	74	107-109	20141103_20230625	415	1512	-4.97728	34.06214	0.35	0.38	0.91	96.60				
Florence	11.13	43.84	Italy	Europe	1	-2.8	-17.1	21.2	85.0	6.3	-8.0	2.9	34.2	9.2	ASCENDING	117	137-139	20141013_20230628	412	1290	11.26172	43.77537	0.35	0.26	0.86	91.70				
Florianopolis	-48.60	-27.58	Brazil	South America	0	-7.9	-36.9	45.7	97.6	-2.3	-31.3	34.7	95.8	5.6	DESCENDING	126	682-685	20150822_20211218	175	526	-48.54542	-27.59419	0.40	0.55	0.74	25.00				
Fort Lauderdale	-80.25	26.11	United States	North America	1	-0.7	-4.4	0.5	27.3	-0.8	-4.5	0.6	40.9	-0.1	ASCENDING	48	78-80	20150921_20230623	193	751	-80.12952	26.13847	0.30	0.34	0.70	93.10				
Fortaleza	-38.56	-3.79	Brazil	South America	0	-0.9	-6.8	3.1	47.0	0.5	-5.4	2.7	38.9	1.4	DESCENDING	155	602-603	20161005_20230619	190	724	-38.57212	-3.77295	0.30	0.58	0.88	81.10				

Frankfurt	8.65	50.04	Germany	Europe	1	-1.3	-18.2	11.4	76.1	0.6	-16.3	9.2	65.5	1.9	DESCENDING	139	425-427	20141015_20230630	396	1415	8.67422	50.14028	0.35	0.15	0.86	68.10
Ft Worth	-97.27	32.77	United States	North America	1	-1.6	-16.7	11.8	77.2	-1.6	-16.6	11.7	85.9	0.1	ASCENDING	34	100-106	20170206_20230623	178	489	-97.35873	32.75179	0.30	0.67	0.70	73.90
Fukuoka	130.49	33.56	Japan	East Asia	1	-0.2	-3.9	0.8	18.7	-2.3	-6.0	1.4	54.6	-2.1	DESCENDING	163	476-478	20141121_20230619	234	896	130.46342	33.57586	0.30	0.18	0.89	70.20
Fushun	123.83	41.86	China	East Asia	0	-0.6	-4.6	1.0	29.1	-0.2	-4.2	1.0	35.1	0.4	DESCENDING	105	452-454	20150209_20230627	218	814	123.91181	41.86415	0.40	0.17	0.78	11.50
Fuzhou	119.37	26.01	China	East Asia	0	-2.5	-21.8	20.0	86.8	-0.3	-19.7	15.4	81.4	2.2	ASCENDING	142	79-82	20150706_20221220	196	672	119.32044	26.03575	0.30	0.65	0.67	14.00
Ganzhou	114.91	25.81	China	East Asia	0	-3.5	-17.5	18.4	85.2	1.0	-12.9	8.4	58.8	4.6	ASCENDING	113	79-81	20150622_20230628	232	682	114.86626	25.84733	0.30	0.53	0.63	34.60
Gaziantep	37.37	37.07	Turkey	West-Central Asia	0	-1.4	-11.8	6.8	66.8	-1.2	-11.6	6.5	73.9	0.2	ASCENDING	116	116-118	20141013_20211217	175	544	37.38028	37.06161	0.30	0.61	0.85	96.40
Geneva	6.15	46.20	Switzerland	Europe	1	-0.2	-5.2	1.5	26.2	5.8	0.8	0.5	7.5	6.0	ASCENDING	88	146-150	20141104_20230626	412	1468	6.13811	46.20290	0.35	0.21	0.87	83.90
George Town	100.43	5.43	Malaysia	Southeast Asia	0	-0.1	-4.9	1.1	21.6	-2.0	-6.7	1.7	56.3	-1.8	DESCENDING	164	572-575	20150225_20230526	122	484	100.3091	5.3903	0.35	0.38	0.85	26.30
Ghaziabad	77.33	28.59	India	South Asia	0	-1.1	-5.7	0.4	36.2	-1.3	-5.9	0.5	46.4	-0.1	DESCENDING	136	495-497	20141015_20230630	214	965	77.436	28.6652	0.40	0.16	0.82	23.30
Glasgow	-4.26	55.83	United Kingdom	Europe	1	-1.0	-15.2	7.7	67.7	2.2	-12.0	5.9	50.4	3.2	ASCENDING	103	177-179	20150715_20230627	386	1383	-4.24239	55.85692	0.35	0.20	0.83	83.60
Goiania	-49.29	-16.72	Brazil	South America	0	-1.6	-19.6	14.1	80.1	2.4	-15.5	9.1	57.1	4.0	DESCENDING	97	645-648	20150609_20230627	241	762	-49.28541	-16.67491	0.30	0.22	0.83	51.90
Guadalajara	-	20.6	Mexico	North	0	0.0	-1.7	0.1	6.0	2.7	1.0	0.0	5.0	2.7	DESCENDING	12	523-	20151130_20220	169	624	-	20.6735	0.30	0.26	0.94	93.10

	103.36	5		America										NG	524	214			103.32840	4							
Guangzhou	113.28	23.10		China	East Asia	0	-2.0	-17.1	13.2	79.7	-0.1	-15.3	10.1	72.3	1.9	ASCENDING	11	67-72	20150615_20221223	206	780	113.42442	23.10779	0.30	0.85	0.71	23.80
Guatemala	-90.54	14.60		Guatemala	North America	0	-2.7	-14.3	12.5	78.5	2.6	-9.0	4.0	42.1	5.3	DESCENDING	26	542-545	20141031_20211211	171	453	-90.54970	14.61642	0.30	0.30	0.86	60.40
Guayaquil	-79.90	-2.18		Ecuador	South America	0	-1.4	-12.0	8.1	68.5	-0.9	-11.5	7.2	73.5	0.5	DESCENDING	40	595-597	20141113_20230623	199	622	-79.93706	-2.16658	0.30	0.16	0.90	34.40
Guiyang	106.68	26.58		China	East Asia	0	-1.3	-9.6	4.5	60.3	0.0	-8.3	3.3	53.0	1.3	ASCENDING	55	81-83	20141021_20230531	211	606	106.69765	26.51932	0.40	0.31	0.75	14.20
Gujranwala	74.18	32.17		Pakistan	South Asia	0	-1.4	-12.7	7.8	69.0	2.4	-8.9	4.2	42.8	3.8	ASCENDING	100	99-102	20141024_20230627	226	681	74.17962	32.15666	0.30	0.33	0.74	25.10
Haifa	35.08	32.81		Israel	West-Central Asia	1	-0.3	-19.0	10.1	61.4	0.5	-18.3	9.4	68.4	0.7	DESCENDING	21	484-486	20141019_20230622	407	1412	35.01329	32.79656	0.30	0.32	0.82	89.40
Haikou	110.30	20.00		China	East Asia	0	-0.4	-11.0	6.1	51.9	0.7	-9.9	4.9	53.3	1.1	ASCENDING	157	57-61	20150625_20221221	204	707	110.27553	19.99728	0.30	0.43	0.72	37.40
Haiphong	106.68	20.85		Vietnam	Southeast Asia	0	-1.2	-9.4	4.3	58.4	-0.2	-8.4	3.4	55.6	1.0	DESCENDING	91	521-523	20150304_20230626	240	918	106.70611	20.86060	0.40	0.15	0.88	36.90
Hamburg	10.00	53.57		Germany	Europe	1	-1.3	-24.1	14.3	80.4	1.4	-21.4	11.6	65.6	2.7	ASCENDING	44	171-173	20150112_20230623	405	1437	10.06441	53.59718	0.35	0.17	0.84	61.20
Handan	114.44	36.62		China	East Asia	0	-1.2	-26.2	20.0	83.0	1.0	-24.0	16.8	71.0	2.2	ASCENDING	40	114-118	20150617_20230623	221	843	114.47302	36.72451	0.35	0.38	0.74	51.50
Hangzhou	120.22	30.26		China	East Asia	0	-1.2	-7.4	1.1	45.8	-0.2	-6.3	0.7	40.1	1.1	ASCENDING	69	94-96	20150408_20230625	240	1107	120.46984	30.22402	0.30	1.02	0.76	32.30
Hanoi	105.8	21.0		Vietnam	Southeast Asia	0	-2.2	-20.8	19.0	85.0	2.0	-16.5	11.3	60.5	4.2	DESCENDING	91	522	20160403_20230	213	676	105.833	21.0191	0.30	0.52	0.68	38.10

	6	5	st Asia											NG				626				94				7							
Haora	88.35	22.62	India	South Asia	0	-0.8	-7.1	1.9	43.6	-4.9	-11.2	7.8	79.6	-4.1	DESCENDING	48	513-515	20141021_20230624	215	810	88.29159	22.59320	0.40	0.20	0.81	35.70							
Harbin	126.63	45.75	China	East Asia	0	-5.4	-28.5	34.3	95.8	0.7	-22.4	19.3	73.8	6.1	DESCENDING	105	440-442	20150609_20230627	220	642	126.62862	45.75348	0.30	0.38	0.78	17.10							
Havana	-82.37	23.08	Cuba	North America	0	-1.6	-18.4	13.1	79.1	-0.8	-17.6	11.8	83.2	0.8	ASCENDING	121	70	20161002_20230628	185	670	-82.37326	23.12782	0.30	0.79	0.68	42.70							
Hefei	117.30	31.84	China	East Asia	0	-1.8	-17.5	15.5	80.1	0.2	-15.6	11.7	70.6	1.9	ASCENDING	142	98-102	20150706_20221220	213	673	117.14305	31.71939	0.30	0.44	0.70	16.70							
Helsinki	24.92	60.25	Finland	Europe	1	0.0	-3.4	0.2	10.1	4.4	1.1	0.1	4.4	4.5	DESCENDING	153	387-389	20170515_20230619	228	1263	25.03156	60.26779	0.35	0.20	0.84	49.80							
Hengyang	112.60	26.89	China	East Asia	0	-2.3	-13.1	10.2	75.2	1.4	-9.4	4.3	46.8	3.7	ASCENDING	11	81-84	20150522_20230504	202	642	112.57865	26.88035	0.30	0.56	0.59	41.00							
Heze	115.50	35.23	China	East Asia	0	-1.6	-14.6	12.0	75.6	-1.1	-14.1	10.8	81.1	0.6	ASCENDING	40	109-112	20150617_20230623	219	661	115.42771	35.26439	0.30	0.42	0.72	32.10							
Hiroshima	132.44	34.36	Japan	East Asia	1	-0.3	-4.2	0.7	20.9	-1.4	-5.3	1.0	48.1	-1.1	DESCENDING	90	477-479	20141116_20230626	236	905	132.4855	34.3785	0.35	0.22	0.85	31.90							
Ho Chi Minh City	106.73	10.87	Vietnam	Southeast Asia	0	-4.4	-49.9	38.5	96.6	5.4	-40.1	25.3	65.7	9.8	ASCENDING	128	29	20170320_20230629	189	613	106.62187	10.88039	0.30	1.07	0.71	39.10							
Hohhot	111.65	40.81	China	East Asia	0	-1.1	-14.1	10.1	70.3	0.7	-12.4	7.6	59.9	1.7	ASCENDING	113	129-132	20150716_20221230	188	647	111.70890	40.76308	0.30	0.24	0.77	56.10							
Homs	36.73	34.73	Syria	West-Central Asia	0	-0.5	-3.6	0.0	17.2	-0.2	-3.4	0.0	24.9	0.3	ASCENDING	14	108-110	20141018_20230621	414	1464	36.70927	34.72766	0.40	0.22	0.95	95.50							
Hong Kong	114.07	22.48	China	East Asia	0	-0.7	-10.6	5.6	56.1	-0.3	-10.2	5.2	63.7	0.4	ASCENDING	11	65-70	20150615_20221223	216	893	114.02860	22.42463	0.30	0.41	0.65	25.30							
Houston	-	29.8	United	North	1	-4.8	-20.3	21.1	89.7	-4.9	-20.4	21.3	94.8	-0.1	DESCENDING	143	492-	20150507_20230	397	2102	-	29.7710	0.35	0.29	0.76	70.50							

	95.34	1	States	Americ										NG	494	630			95.3764	1						
				a															3							
Huaian	119.07	33.63	China	East Asia	0	-3.0	-18.2	17.6	84.7	1.5	-13.7	8.8	57.8	4.5	ASCENDING	69	104-105	20150701_20230613	206	621	119.07826	33.57398	0.30	0.53	0.65	31.30
Huainan	116.92	32.65	China	East Asia	0	-3.6	-23.1	22.5	90.5	0.5	-19.0	14.0	72.1	4.1	ASCENDING	142	101-104	20151115_20221220	188	648	117.04016	32.65945	0.30	0.43	0.62	30.90
Huambo	15.75	12.78	Angola	Africa	0	-0.8	-4.6	0.4	29.6	-0.8	-4.6	0.4	39.6	0.0	ASCENDING	58	1133-1135	20160213_20211213	158	610	15.72250	-12.77308	0.40	0.28	0.90	97.80
Huludao	120.87	40.78	China	East Asia	0	-0.7	-9.5	4.5	53.2	0.9	-7.9	3.2	43.4	1.6	ASCENDING	171	125-127	20170404_20230527	239	1378	120.75724	40.60915	0.35	0.59	0.71	46.40
Huzhou	120.12	30.88	China	East Asia	0	-3.2	-16.8	15.7	83.3	-2.0	-15.6	12.7	86.8	1.2	ASCENDING	69	94-97	20150408_20230625	213	651	120.09629	30.87206	0.30	0.47	0.66	35.40
Hyderabad	78.48	17.45	India	South Asia	0	-0.7	-5.9	1.8	38.4	0.7	-4.5	1.4	30.4	1.4	DESCENDING	165	532-534	20151117_20230620	222	676	78.45773	17.41785	0.35	0.17	0.87	83.00
Hyderabad	68.36	25.39	Pakistan	South Asia	0	-0.7	-5.5	1.1	35.3	0.8	-4.1	0.7	23.9	1.5	DESCENDING	78	506-508	20141023_20230614	222	689	68.36119	25.36926	0.30	0.23	0.89	84.40
Ibadan	3.93	7.41	Nigeria	Africa	0	-0.4	-3.1	0.1	15.5	-1.0	-3.6	0.1	34.1	-0.6	ASCENDING	1	1199-1201	20150602_20230620	239	903	3.92275	7.37539	0.35	0.31	0.91	91.70
Ikare	5.78	7.53	Nigeria	Africa	0	-0.2	-9.1	4.2	41.6	-0.8	-9.6	4.6	66.9	-0.5	ASCENDING	103	1205-1207	20150410_20230627	241	941	5.75247	7.51182	0.30	0.21	0.62	42.80
Incheon	126.74	37.53	South Korea	East Asia	1	-0.5	-9.0	4.2	47.2	0.3	-8.2	3.7	50.8	0.8	DESCENDING	32	467-469	20150604_20211211	157	564	126.69975	37.50959	0.35	0.37	0.77	74.80
Indianapolis	-86.16	39.79	United States	North America	1	-0.7	-5.3	0.8	33.0	-1.4	-6.0	1.0	50.0	-0.7	ASCENDING	121	124-126	20160124_20230628	199	712	-86.15341	39.79698	0.35	0.27	0.75	41.30
Indore	75.91	22.77	India	South Asia	0	-3.6	-23.1	22.5	90.5	-0.6	-20.1	15.7	85.4	3.0	DESCENDING	136	515-517	20161004_20230630	176	702	75.88211	22.73408	0.35	0.27	0.71	29.30

Irvine	-117.82	33.67	United States	North America	1	-0.5	-9.4	4.3	48.6	-0.5	-9.4	4.3	63.1	0.0	DESCENDING	71	479-481	20150126_20230625	314	1366	-117.80395	33.67606	0.30	0.18	0.89	84.10
Isfahan	51.64	32.66	Iran	West-Central Asia	0	-10.6	-70.0	51.6	99.1	5.5	-53.9	34.8	66.7	16.1	ASCENDING	28	100-103	20150417_20230622	221	649	51.70421	32.66114	0.30	0.26	0.93	89.50
Istanbul	28.96	41.04	Turkey	West-Central Asia	0	-0.9	-10.8	5.7	60.1	0.2	-9.8	4.8	57.1	1.1	ASCENDING	58	129	20171017_20230624	170	524	28.99381	41.05797	0.30	0.44	0.85	85.20
Izmir	27.18	38.46	Turkey	West-Central Asia	0	-1.3	-14.7	8.5	70.7	2.4	-11.0	5.5	48.6	3.7	DESCENDING	36	463-465	20141008_20211212	202	758	27.20020	38.43279	0.30	0.42	0.87	98.40
Jaipur	75.79	26.90	India	South Asia	0	-0.3	-7.3	2.5	36.5	0.1	-6.8	2.2	44.9	0.5	DESCENDING	136	501-502	20161004_20230630	171	667	75.78575	26.91521	0.30	0.31	0.71	66.70
Jakarta	106.83	-6.26	Indonesia	Southeast Asia	0	-3.2	-28.8	24.8	92.0	-1.6	-27.3	21.6	93.0	1.5	ASCENDING	98	1155-1160	20151112_20230627	205	658	106.85541	-6.21172	0.30	0.69	0.86	89.20
Jamshedpur	86.15	22.82	India	South Asia	0	-0.9	-9.5	4.6	56.6	-3.3	-11.9	6.8	78.6	-2.4	DESCENDING	121	515-517	20150223_20230629	231	985	86.15383	22.81203	0.40	0.21	0.83	48.20
Jeddah	39.21	21.51	Saudi Arabia	West-Central Asia	0	-0.2	-5.0	0.9	22.3	-0.9	-5.7	1.1	47.6	-0.7	ASCENDING	14	64-66	20160820_20230621	199	761	39.31701	21.36840	0.35	0.52	0.90	78.20
Jerusalem	35.20	31.76	Israel	West-Central Asia	1	-0.8	-5.3	0.4	32.2	0.7	-3.7	0.1	18.3	1.5	ASCENDING	87	98-100	20141011_20230626	412	1455	35.21631	31.79223	0.30	0.20	0.93	98.40
Jiamusi	130.33	46.83	China	East Asia	0	-2.4	-23.0	24.4	88.4	2.3	-18.3	14.4	64.1	4.7	DESCENDING	134	434-438	20150611_20211218	185	540	130.39819	46.80786	0.30	0.40	0.66	29.00
Jilin	126.52	43.91	China	East Asia	0	-3.0	-16.8	16.8	83.6	0.0	-13.9	10.1	70.5	2.9	DESCENDING	32	445-448	20150123_20220304	158	563	126.59783	43.89485	0.30	0.36	0.63	15.80

Jinan	117.03	36.69	China	East Asia	0	-2.4	-13.1	8.8	73.9	0.8	-9.8	4.9	52.2	3.3	ASCENDING	149	113-117	20150730_20221220	195	548	117.04043	36.71108	0.30	0.41	0.72	27.60
Jinhua	119.61	29.11	China	East Asia	0	-6.4	-19.9	32.7	92.7	1.8	-11.7	7.4	52.3	8.1	ASCENDING	69	89-92	20150408_20230625	212	621	119.64853	29.08849	0.30	0.58	0.68	53.30
Jining	116.64	35.44	China	East Asia	0	-1.5	-26.4	19.1	84.7	-4.0	-28.9	24.8	95.9	-2.5	ASCENDING	142	111-113	20170520_20230630	179	528	116.55742	35.42010	0.30	0.81	0.72	33.40
Johannesburg	28.04	-26.17	South Africa	Africa	0	-0.5	-4.2	1.7	29.2	0.8	-2.9	1.4	23.7	1.3	DESCENDING	50	676-678	20171104_20211213	117	456	28.06773	-26.20534	0.40	0.34	0.91	97.20
Kaduna	7.43	10.51	Nigeria	Africa	0	0.3	-2.0	0.1	3.7	-0.8	-3.1	0.2	32.2	-1.1	ASCENDING	30	1214-1216	20150405_20230622	236	945	7.43134	10.50053	0.30	0.12	0.89	99.00
Kalyan	73.05	19.16	India	South Asia	0	-0.5	-9.7	4.8	50.3	-0.2	-9.3	4.6	60.0	0.4	DESCENDING	34	524-526	20150301_20230623	188	734	73.13348	19.23878	0.30	0.23	0.79	89.70
Kano	8.53	12.00	Nigeria	Africa	0	-0.7	-5.1	1.3	34.7	-0.4	-4.8	1.2	40.9	0.3	ASCENDING	132	1214-1217	20150424_20230629	235	928	8.52316	11.97783	0.35	0.18	0.91	68.30
Kanpur	80.33	26.46	India	South Asia	0	-0.2	-4.7	1.0	21.8	-2.0	-6.5	1.6	55.8	-1.8	ASCENDING	129	81-84	20150530_20230629	217	818	80.31862	26.43812	0.35	0.21	0.80	31.70
Kansas City	-94.60	39.06	United States	North America	1	-0.7	-8.1	3.2	46.8	-0.3	-7.7	2.9	53.1	0.4	ASCENDING	63	121-123	20150315_20230625	209	819	-94.51465	39.10184	0.30	0.27	0.66	59.20
Kaohsiung	120.34	22.69	China	East Asia	0	-2.2	-22.1	18.1	85.3	2.2	-17.7	11.9	61.9	4.4	ASCENDING	69	68-71	20150114_20221227	224	631	120.32277	22.65428	0.30	0.49	0.82	61.60
Karachi	67.06	24.90	Pakistan	South Asia	0	0.6	-9.3	3.7	34.2	1.6	-8.3	2.6	39.0	1.0	ASCENDING	42	77	20170314_20230623	190	605	67.00016	24.94447	0.30	1.08	0.85	88.40
Karaj	51.03	35.74	Iran	West-Central Asia	0	-3.0	-133.1	38.1	95.3	16.1	-113.9	18.8	64.6	19.1	ASCENDING	28	110-123	20150417_20230622	221	655	50.98998	35.83554	0.30	0.19	0.90	83.30
Katowice	19.02	50.2	Poland	Europe	0	-1.4	-14.6	8.9	72.4	4.4	-8.8	4.4	40.6	5.7	ASCENDING	102	162-	20141129_20230	405	1444	19.0108	50.2564	0.35	0.14	0.84	47.10

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Kawasaki	139.68	35.58	Japan	East Asia	1	0.1	-1.7	0.0	3.5	8.5	6.7	0.0	1.6	8.4	DESCENDING	46	472-474	20141125_20230623	231	880	139.65955	35.57476	0.30	0.20	0.96	91.80
Kazan	49.13	55.82	Russia	Russia	0	-2.1	-18.2	15.9	81.9	0.9	-15.2	10.4	63.4	3.0	DESCENDING	152	406	20160514_20230619	210	699	49.11952	55.78571	0.30	0.37	0.67	26.20
Khartoum	32.50	15.60	Sudan	Africa	0	-0.5	-7.2	2.5	40.1	0.1	-6.6	2.2	44.4	0.5	DESCENDING	21	541-543	20150111_20220826	163	689	32.54781	15.52856	0.40	0.21	0.88	57.30
Kiev	30.49	50.43	Ukraine	Europe	0	-0.5	-8.0	3.2	42.8	0.4	-7.0	2.7	43.8	0.9	ASCENDING	87	163-165	20190424_20230626	205	753	30.51919	50.45073	0.35	0.45	0.82	32.70
Kinshasa	15.33	-4.33	The Democratic Republic of the Congo	Africa	0	-0.4	-5.6	1.4	30.8	-2.8	-8.0	2.7	64.3	-2.4	DESCENDING	109	606-609	20150622_20230628	229	924	15.30000	-4.35844	0.35	0.16	0.86	52.80
Kobe	135.20	34.72	Japan	East Asia	1	-0.6	-6.0	1.3	35.0	-1.3	-6.7	1.6	53.8	-0.7	DESCENDING	17	473-475	20141123_20230621	234	895	135.09451	34.68315	0.35	0.31	0.88	48.90
Kobenhavn	12.45	55.73	Denmark	Europe	1	0.0	-7.8	3.8	34.8	2.5	-5.3	2.9	30.7	2.5	DESCENDING	66	403-405	20160601_20230625	361	1336	12.54213	55.69009	0.35	0.11	0.88	79.30
Kochi	76.34	10.04	India	South Asia	0	-0.8	-8.5	3.4	50.2	-0.3	-8.0	3.1	54.8	0.5	DESCENDING	165	557-559	20150708_20230620	232	898	76.31997	10.03044	0.35	0.34	0.67	30.70
Kolkata	88.35	22.59	India	South Asia	0	-0.9	-8.4	3.2	50.7	-5.3	-12.8	11.8	85.5	-4.4	ASCENDING	12	68-71	20170312_20230621	192	757	88.35651	22.52657	0.35	0.44	0.86	88.30
Kuala Lumpur	101.62	3.11	Malaysia	Southeast Asia	0	-0.4	-4.6	1.1	26.7	-1.3	-5.5	1.3	49.7	-0.9	DESCENDING	91	582-583	20141023_20230427	202	623	101.69868	3.16859	0.30	0.27	0.78	84.30
Kunming	102.74	25.00	China	East Asia	0	-2.5	-16.2	13.3	80.3	-0.5	-14.2	9.5	75.8	2.0	DESCENDING	62	508-510	20150525_20221226	196	720	102.87743	25.04967	0.30	0.35	0.70	42.50
Kuwait	47.96	29.28	Kuwait	West-Central	0	-0.1	-3.6	0.1	10.5	-1.2	-4.7	0.2	39.7	-1.0	ASCENDING	174	91-93	20141017_20230620	238	900	47.97750	29.36939	0.30	0.12	0.66	92.50

			Asia																							
Kyoto	135.73	34.91	Japan	East Asia	1	-0.6	-7.0	2.9	41.5	-1.0	-7.5	3.2	60.1	-0.5	DESCENDING	17	474-475	20150404_20230621	222	651	135.75429	35.00221	0.30	0.23	0.92	23.80
La Paz	-68.18	-16.52	Bolivia	South America	0	-1.4	-15.0	10.0	73.7	2.4	-11.3	5.9	49.3	3.8	ASCENDING	76	1124-1126	20150114_20230613	259	960	-68.14137	-16.50214	0.30	0.57	0.88	54.10
Lagos	3.37	6.55	Nigeria	Africa	0	-0.6	-12.9	6.9	57.9	-1.8	-14.0	8.0	80.6	-1.2	ASCENDING	1	14-16	20150602_20230620	240	906	3.34608	6.51149	0.35	0.26	0.90	71.00
Lahore	74.33	31.53	Pakistan	South Asia	0	-3.9	-71.4	32.2	95.6	2.6	-64.8	25.5	68.7	6.5	ASCENDING	100	97-99	20151112_20230627	207	701	74.27538	31.53205	0.30	0.75	0.73	40.90
Lanzhou	103.76	36.08	China	East Asia	0	-0.5	-5.4	1.3	32.0	0.5	-4.3	1.1	28.8	1.1	DESCENDING	135	472-475	20150130_20230629	169	612	103.94204	36.04556	0.30	0.82	0.83	87.60
Las Vegas	-115.17	36.13	United States	North America	1	-0.6	-5.5	0.0	24.8	0.1	-4.8	0.0	26.7	0.7	DESCENDING	173	472-474	20141204_20230620	286	1454	-115.27174	36.18192	0.30	0.18	0.97	85.20
Leeds	-1.60	53.73	United Kingdom	Europe	1	-1.0	-11.3	5.9	61.6	1.6	-8.7	4.2	44.2	2.6	DESCENDING	154	413-415	20150601_20230619	394	1456	-1.57482	53.81070	0.40	0.14	0.89	77.70
Leon	-101.71	21.10	Mexico	North America	0	-0.7	-37.7	20.2	78.1	0.7	-36.4	18.3	74.8	1.3	ASCENDING	151	62-64	20141016_20230619	209	808	-101.69255	21.14837	0.40	0.25	0.90	91.70
Leshan	103.73	29.58	China	East Asia	0	-3.4	-17.1	19.2	85.3	3.7	-10.0	5.0	44.7	7.2	DESCENDING	62	492-494	20141009_20230624	209	602	103.72745	29.61747	0.30	0.45	0.61	30.70
Lima	-77.02	-11.98	Peru	South America	0	-0.6	-3.9	0.3	22.9	-1.5	-4.8	0.4	43.4	-1.0	DESCENDING	171	631-632	20150121_20230620	190	674	-77.01246	-12.09858	0.30	0.57	0.94	69.20
Linyi	118.31	35.04	China	East Asia	0	-1.6	-14.8	10.1	74.8	0.4	-12.7	7.4	62.2	2.1	ASCENDING	69	109-110	20150701_20221227	242	722	118.41905	35.09547	0.30	0.36	0.81	52.80
Lisbon	-9.13	38.7	Portugal	Europe	1	-0.4	-2.8	0.0	13.5	-0.9	-3.3	0.1	32.6	-0.5	ASCENDING	45	121-	20150112_20230	410	1929	-9.15050	38.7329	0.35	0.14	0.87	88.70

Lupanshui	104.88	26.58	China	East Asia	0	-3.1	-17.3	16.6	84.1	4.4	-9.7	4.8	43.2	7.6	DESCENDING	164	504-505	20141215_20210524	154	453	104.78476	26.61253	0.30	0.43	0.61	31.20
Lusaka	28.31	15.41	Zambia	Africa	0	-0.2	-7.0	2.4	33.0	0.6	-6.2	2.0	37.6	0.7	ASCENDING	145	1127-1129	20160928_20211219	159	622	28.35586	-15.40417	0.35	0.41	0.86	85.40
Luzhou	105.44	28.89	China	East Asia	0	-4.4	-20.6	24.8	90.4	2.6	-13.6	8.9	55.0	7.0	DESCENDING	164	495-496	20141215_20210524	151	423	105.43066	28.89396	0.30	0.45	0.59	32.20
Lyon	4.85	45.75	France	Europe	1	0.3	-1.5	0.1	3.2	-0.1	-1.9	0.1	22.4	-0.5	DESCENDING	139	440-442	20141015_20230630	398	1473	4.85014	45.75816	0.35	0.09	0.88	92.30
Maanshan	118.53	31.74	China	East Asia	0	-5.3	-25.8	30.2	94.5	0.8	-19.7	15.1	70.8	6.1	ASCENDING	69	98-100	20150408_20230613	207	570	118.50609	31.65562	0.30	0.63	0.67	32.40
Madrid	-3.71	40.39	Spain	Europe	1	-0.2	-9.5	4.1	42.2	1.3	-7.9	2.5	39.1	1.6	ASCENDING	1	127-129	20150602_20230620	396	1418	-3.73164	40.38575	0.40	0.21	0.89	67.70
Madurai	78.13	9.93	India	South Asia	0	-0.3	-6.9	2.1	34.0	-0.6	-7.3	2.3	53.9	-0.3	DESCENDING	92	559-562	20150305_20230627	232	925	78.15445	9.92565	0.35	0.16	0.77	42.20
Makkah	39.85	21.43	Saudi Arabia	West-Central Asia	0	-0.3	-2.9	0.3	14.7	-0.7	-3.3	0.3	33.0	-0.4	ASCENDING	14	63-68	20160820_20230621	200	622	39.79223	21.36918	0.30	0.49	0.93	98.30
Manaus	-60.00	-3.05	Brazil	South America	0	-1.1	-13.1	7.6	66.2	-1.6	-13.5	8.1	79.9	-0.4	DESCENDING	10	600-601	20160925_20230609	193	725	-60.00448	-3.12692	0.30	0.27	0.79	28.40
Manchester	-2.27	53.52	United Kingdom	Europe	1	0.2	-4.7	1.3	18.4	0.3	-4.5	1.2	32.8	0.1	DESCENDING	154	413-415	20150508_20230619	396	1459	-2.23551	53.44873	0.35	0.13	0.87	91.80
Mandalay	96.09	21.96	Myanmar	Southeast Asia	0	-3.7	-42.6	29.2	94.2	1.6	-37.4	21.1	70.0	5.2	ASCENDING	70	66-1252	20170316_20230625	183	566	96.06544	21.96891	0.30	0.63	0.73	40.00
Manila	120.98	14.60	Philippines	Southeast Asia	0	-1.0	-13.7	8.4	66.9	-3.0	-15.7	12.0	87.6	-2.0	DESCENDING	32	542-545	20141019_20230622	248	788	120.99714	14.60417	0.30	0.19	0.91	94.10
Mannheim	8.48	49.5	Germany	Europe	1	-0.8	-12.0	7.0	61.3	1.9	-9.2	4.4	44.6	2.8	ASCENDING	15	158-	20141018_20230	386	1381	8.50429	49.5208	0.35	0.16	0.85	63.00

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Maoming	110.90	21.65	China	East Asia	0	-2.7	-18.0	16.3	82.9	0.6	-14.7	10.0	65.0	3.3	ASCENDING	84	64-67	20151111_20230626	195	565	110.91457	21.64788	0.30	0.70	0.62	37.20
Maputo	32.52	25.89	Mozambique	Africa	0	-0.4	-3.9	0.6	21.6	-0.1	-3.6	0.6	29.8	0.3	ASCENDING	145	1088-1090	20150401_20230630	245	1189	32.57289	25.94903	0.40	0.13	0.82	68.60
Maracaibo	-71.64	10.61	Venezuela	South America	0	0.0	-7.2	2.9	31.5	0.0	-7.2	2.9	48.9	0.0	DESCENDING	171	557-558	20150813_20230620	199	707	-71.65516	10.56807	0.30	0.37	0.86	57.70
Maracay	-67.55	10.22	Venezuela	South America	0	-0.4	-3.7	0.1	16.8	-0.6	-4.0	0.1	32.0	-0.3	DESCENDING	25	554-556	20141031_20230622	212	939	-67.59722	10.23991	0.40	0.18	0.92	50.50
Marseille	5.38	43.37	France	Europe	1	-0.5	-4.6	0.5	24.4	-0.4	-4.5	0.4	35.0	0.1	DESCENDING	139	445-447	20150131_20230630	400	1462	5.38439	43.31316	0.35	0.16	0.91	93.90
Mashhad	59.59	36.31	Iran	West-Central Asia	0	0.8	-67.2	27.2	64.1	-16.5	-84.6	61.8	99.5	-17.3	ASCENDING	86	113-117	20150421_20230626	217	650	59.63243	36.28825	0.30	0.34	0.90	89.60
Mbuji Mayi	23.61	-6.14	The Democratic Republic of the Congo	Africa	0	0.0	-4.3	0.2	12.4	-0.8	-5.1	0.4	41.3	-0.8	DESCENDING	167	611-614	20150427_20230620	191	777	23.61150	-6.11402	0.35	0.16	0.73	41.70
Medan	98.66	3.61	Indonesia	Southeast Asia	0	-32.7	-80.1	71.3	99.7	-24.4	-71.8	64.8	99.6	8.3	ASCENDING	143	1189	20161121_20230630	168	577	98.68778	3.54374	0.30	0.87	0.87	77.60
Medellin	-75.58	6.25	Colombia	South America	0	0.0	-5.9	1.3	24.2	2.5	-3.4	0.7	15.6	2.5	DESCENDING	142	569-571	20151115_20230630	206	741	-75.57738	6.25430	0.30	0.24	0.88	92.30
Medina	39.61	24.4	Saudi	West-	0	0.0	-2.3	0.2	7.9	-0.7	-3.0	0.2	31.0	-0.7	ASCENDING	14	74-76	20150603_20230620	235	684	39.5925	24.4608	0.35	0.38	0.99	98.80

		7	Arabia	Central Asia										G		621			1	9						
Meerut	77.70	28.98	India	South Asia	0	-1.2	-7.3	2.0	48.7	0.3	-5.8	1.2	36.3	1.5	DESCENDING	136	495-498	20141015_20230630	213	853	77.70292	29.00460	0.35	0.14	0.83	47.70
Melbourne	145.00	-37.80	Australia	Oceania	1	-0.5	-5.7	2.1	35.6	5.4	0.2	0.9	10.2	5.8	DESCENDING	118	717-719	20150505_20230628	215	640	145.00522	-37.73579	0.30	0.33	0.88	97.10
Memphis	-89.96	35.08	United States	North America	1	-0.6	-5.4	1.1	32.9	0.8	-4.1	0.7	23.9	1.4	ASCENDING	92	110-112	20160930_20230626	192	715	-89.98204	35.12470	0.35	0.34	0.76	43.50
Mesa	-111.82	33.42	United States	North America	1	-0.7	-10.6	5.3	55.7	-0.5	-10.3	5.2	66.3	0.3	DESCENDING	27	479-483	20150417_20230622	189	562	-111.73652	33.41897	0.30	0.15	0.93	98.70
Mexico City	-99.09	19.46	Mexico	North America	0	-7.9	-216.5	46.5	99.2	-4.2	-212.8	41.1	98.6	3.7	ASCENDING	78	56-58	20150103_20230626	328	1102	-99.20373	19.38249	0.30	0.58	0.87	53.40
Miami	-80.33	25.79	United States	North America	1	0.2	-2.5	0.1	4.8	0.2	-2.4	0.1	19.7	0.0	ASCENDING	48	78-80	20150921_20230623	193	712	-80.22201	25.76367	0.30	0.30	0.81	72.10
Mianyang	104.72	31.57	China	East Asia	0	-6.5	-24.1	34.6	95.1	1.0	-16.6	13.1	66.3	7.5	ASCENDING	55	97-99	20151215_20230531	172	506	104.72768	31.44483	0.30	0.67	0.61	51.50
Milan	9.22	45.56	Italy	Europe	1	-0.4	-6.3	2.2	35.1	-0.4	-6.3	2.2	49.0	0.0	DESCENDING	168	438-440	20150602_20230620	392	1417	9.19008	45.46734	0.35	0.11	0.88	83.30
Milwaukee	-88.02	43.05	United States	North America	1	-0.4	-3.4	0.2	17.3	-1.5	-4.5	0.3	41.6	-1.1	ASCENDING	121	134-136	20161119_20230628	177	654	-87.92594	43.07580	0.35	0.23	0.84	84.80
Minneapolis	-93.28	44.95	United States	North America	1	0.1	-4.5	0.9	16.1	-1.8	-6.3	1.5	54.2	-1.8	ASCENDING	165	143-145	20150403_20230515	194	741	-93.2524	44.96132	0.30	0.22	0.75	81.10

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Minsk	27.57	53.88	Belarus	Europe	0	-0.7	-6.1	0.7	34.3	1.2	-4.2	0.3	18.6	1.9	DESCENDING	109	410-412	20150306_20230628	313	1252	27.56121	53.93090	0.30	0.16	0.88	58.40
Mogadishu	45.33	2.05	Somalia	Africa	0	0.1	-3.9	0.7	13.8	-0.4	-4.4	0.8	37.1	-0.5	DESCENDING	35	585-587	20160107_20230623	179	665	45.36761	2.08771	0.40	0.28	0.94	72.30
Monrovia	-10.70	6.32	Liberia	Africa	0	-0.5	-16.0	9.6	62.5	-0.2	-15.6	9.2	72.9	0.3	ASCENDING	162	1199-1201	20150414_20230619	241	932	-10.73296	6.27669	0.35	0.20	0.73	85.60
Monterrey	-100.31	25.72	Mexico	North America	0	-0.5	-5.9	1.7	34.5	1.0	-4.4	1.3	26.7	1.5	DESCENDING	114	506-507	20161014_20230628	199	756	-100.29183	25.67858	0.30	0.32	0.90	65.10
Montevideo	-56.12	34.82	Uruguay	South America	0	0.7	-1.7	0.0	1.6	1.0	-1.5	0.0	11.2	0.3	DESCENDING	97	708-710	20151031_20230627	205	767	-56.14230	34.88902	0.35	0.18	0.93	98.00
Montreal	-73.60	45.55	Canada	North America	1	-0.2	-3.6	0.2	13.7	2.6	-0.8	0.1	6.7	2.8	ASCENDING	135	144-148	20160406_20230629	164	596	-73.61122	45.53389	0.35	0.30	0.72	43.10
Moscow	37.62	55.76	Russia	Russia	0	-0.5	-4.7	0.6	25.7	0.3	-3.9	0.5	25.8	0.8	DESCENDING	65	404-407	20150303-20230625	156	735	37.63321	55.73241	0.35	0.18	0.67	52.70
Mosul	43.15	36.36	Iraq	West-Central Asia	0	-0.4	-10.8	5.6	50.9	0.5	-9.8	4.8	54.3	1.0	DESCENDING	152	470-472	20141016_20230619	390	1272	43.23920	36.36379	0.30	0.12	0.93	95.20
Mudangiang	129.57	44.56	China	East Asia	0	-4.6	-24.6	28.1	93.0	0.4	-19.5	16.1	74.3	5.0	ASCENDING	156	138-142	20141016_20230619	186	542	129.61554	44.57382	0.30	0.44	0.62	16.90
Multan	71.49	30.20	Pakistan	South Asia	0	-2.2	-13.3	8.9	74.3	7.1	-4.0	1.9	19.1	9.3	DESCENDING	5	491-492	20141018_20230621	215	673	71.46172	30.18779	0.30	0.21	0.79	63.10
Mumbai	72.99	19.12	India	South Asia	0	-0.9	-9.1	4.4	55.1	-0.6	-8.9	4.2	62.7	0.3	DESCENDING	34	528-530	20160927_20230623	185	527	72.83999	19.07953	0.35	0.40	0.83	50.70

Munich	11.55	48.18	Germany	Europe	1	-1.2	-14.3	7.6	68.8	0.8	-12.3	6.3	57.1	2.0	ASCENDING	44	151-153	20151120_20230623	366	1277	11.57281	48.13655	0.35	0.15	0.88	81.30
Nagoya	136.92	35.18	Japan	East Asia	1	-0.1	-1.9	0.3	9.2	3.5	1.7	0.1	4.9	3.6	DESCENDING	119	475-477	20150411_20230616	212	616	136.93617	35.14512	0.30	0.24	0.93	94.00
Nagpur	79.12	21.17	India	South Asia	0	-1.2	-12.7	7.3	66.7	-0.9	-12.4	7.0	74.8	0.3	DESCENDING	165	523-525	20160930_20230620	211	673	79.10700	21.14497	0.35	0.18	0.88	81.10
Nairobi	36.86	-1.28	Kenya	Africa	0	-1.9	-32.3	27.0	89.1	-1.5	-31.8	26.3	93.5	0.4	DESCENDING	79	596-598	20141104_20211215	157	525	36.96401	-1.27466	0.40	0.40	0.83	44.90
Nampo	125.50	38.85	North Korea	East Asia	0	-3.1	-12.7	12.0	77.5	-2.5	-12.1	10.0	81.8	0.6	ASCENDING	25	122-124	20170313_20230622	191	751	125.38961	38.73075	0.40	0.39	0.85	12.60
Nanchang	115.92	28.64	China	East Asia	0	-1.8	-13.9	10.0	74.4	0.1	-12.0	7.1	63.7	1.9	ASCENDING	40	86-91	20150418_20221213	192	655	115.87423	28.54655	0.30	0.34	0.74	21.30
Nanchong	106.10	30.80	China	East Asia	0	-4.8	-20.8	27.4	91.5	3.0	-13.0	8.5	53.3	7.8	DESCENDING	164	489-491	20141028_20210524	157	455	106.05361	30.75542	0.30	0.61	0.57	31.90
Nanjing	118.79	32.07	China	East Asia	0	-4.7	-23.5	27.6	92.6	0.5	-18.2	14.2	71.8	5.3	ASCENDING	69	99-101	20150408_20221227	224	639	118.91671	32.16076	0.30	0.73	0.73	40.40
Nanning	108.29	22.82	China	East Asia	0	-2.9	-18.1	16.8	84.0	0.0	-15.2	10.8	72.0	3.0	ASCENDING	157	67-71	20150625_20221221	195	648	108.40624	22.84517	0.30	0.38	0.71	23.20
Nanyang	112.53	33.00	China	East Asia	0	-2.4	-22.0	19.7	86.7	2.9	-16.7	10.5	58.6	5.3	ASCENDING	113	101-105	20151113_20230628	212	612	112.55499	32.96759	0.30	0.44	0.71	33.00
Naples	14.27	40.93	Italy	Europe	1	1.5	-7.6	1.6	25.2	-0.4	-9.5	3.7	60.5	-1.9	DESCENDING	22	454-456	20150324_20230622	401	1175	14.25986	40.85935	0.40	0.15	0.92	82.30
Nasik	73.79	20.00	India	South Asia	0	-0.8	-8.8	3.8	51.4	-0.2	-8.2	3.3	54.9	0.7	DESCENDING	136	525-527	20161004_20220810	165	664	73.77024	20.00003	0.35	0.21	0.85	74.30
Natal	-35.25	-5.78	Brazil	South America	0	-0.3	-8.1	3.6	40.0	-0.1	-7.8	3.4	52.9	0.3	DESCENDING	9	607-609	20160925_20230621	203	789	-35.22458	-5.81019	0.35	0.43	0.89	68.70
New Taipei	121.4	25.0	China	East	0	-3.1	-19.7	16.1	85.1	0.0	-16.6	10.9	73.5	3.1	DESCENDING	105	508-	20151124_20230	304	1056	121.462	24.9981	0.30	0.52	0.74	18.20

	5	1		Asia										NG	510	627			27	1						
New York	-	40.7	United States	North America	1	-0.4	-3.8	1.1	24.2	-0.9	-4.3	1.2	43.9	-0.5	ASCENDING	33	128-131	20160330_20230622	205	750	-	40.6694	0.30	0.45	0.87	69.20
Newcastle	151.6	-	Australia	Oceania	1	-0.5	-11.6	6.3	54.5	-1.9	-13.0	7.7	79.8	-1.4	DESCENDING	74	700-702	20150526_20230625	242	704	151.736	-	0.30	0.17	0.80	56.10
Ningbo	121.5	29.8	China	East Asia	0	-4.6	-25.5	28.0	93.4	0.0	-20.8	16.4	79.2	4.7	ASCENDING	171	91-94	20150708_20221222	237	942	121.559	29.8291	0.30	0.69	0.70	30.20
Niteroi	-	-	Brazil	South America	0	-0.3	-5.1	1.1	26.2	-0.2	-4.9	1.0	37.8	0.2	DESCENDING	155	664-666	20150508_20220413	197	749	-	-	0.35	0.22	0.79	56.20
Norfolk	-	36.8	United States	North America	1	-0.8	-7.0	2.4	44.7	-1.3	-7.4	2.7	59.4	-0.4	ASCENDING	106	117-119	20150317_20230627	207	819	-	36.9216	0.30	0.26	0.78	87.20
Oakland	-	37.7	United States	North America	1	-0.6	-8.2	3.4	45.3	-0.4	-8.0	3.3	56.4	0.3	DESCENDING	115	466-468	20150222_20230628	256	827	-	37.7939	0.30	0.19	0.84	90.40
Omdurman	32.48	15.6	Sudan	Africa	0	-0.3	-4.0	1.1	22.6	-0.7	-4.4	1.2	42.7	-0.5	DESCENDING	21	539-541	20161002_20211223	158	613	32.4862	15.7055	0.35	0.24	0.92	86.10
Orlando	-	28.5	United States	North America	1	0.0	-4.2	1.1	18.1	1.0	-3.2	0.8	20.0	1.0	ASCENDING	48	88-90	20150921_20230611	190	724	-81.3292	28.5226	0.35	0.31	0.62	100.00
Osaka	135.5	34.7	Japan	East Asia	1	-0.6	-9.0	4.3	49.2	3.8	-4.5	3.0	27.2	4.4	DESCENDING	17	478-479	20151118_20230609	210	621	135.515	34.6617	0.30	0.24	0.94	94.80
Ottawa	-	45.3	Canada	North America	1	0.0	-5.3	0.8	20.2	3.1	-2.1	0.4	9.8	3.1	ASCENDING	33	144-146	20150722_20230622	196	687	-75.6977	45.4124	0.30	0.33	0.84	12.30

Ouagadougou	-1.53	12.36	Burkina Faso	Africa	0	0.1	-3.1	0.3	8.8	0.0	-3.2	0.3	25.2	-0.1	ASCENDING	147	32-34	20150612_20230501	205	760	-1.47726	12.38586	0.35	0.24	0.86	75.90
Palembang	104.76	-2.98	Indonesia	Southeast Asia	0	-0.8	-10.2	5.2	56.7	-0.1	-9.5	4.5	59.0	0.7	DESCENDING	120	599-604	20170319_20230628	151	504	104.74430	-2.96027	0.30	0.32	0.78	55.00
Panama City	-79.52	9.02	Panama	North America	0	-0.7	-8.7	3.6	49.0	-1.0	-8.9	3.9	65.4	-0.3	ASCENDING	121	24-27	20141013_20230628	215	809	-79.52197	9.01667	0.35	0.37	0.75	21.40
Paris	2.33	48.87	France	Europe	1	-0.4	-2.2	0.2	14.9	-0.4	-2.2	0.2	26.9	0.0	ASCENDING	59	154-156	20141102_20230624	395	2038	2.38124	48.85502	0.35	0.18	0.91	85.50
Patna	85.15	25.60	India	South Asia	0	-0.7	-4.7	0.9	31.0	-0.5	-4.4	0.8	38.6	0.3	DESCENDING	121	505-507	20141014_20230629	243	1041	85.16214	25.59662	0.35	0.12	0.85	73.40
Perth	115.88	-31.98	Australia	Oceania	1	-0.6	-10.5	5.8	54.1	0.8	-9.2	3.9	48.9	1.4	DESCENDING	163	698-700	20141028_20230207	195	754	115.91005	-31.99148	0.30	0.51	0.83	87.10
Peshawar	71.57	34.05	Pakistan	South Asia	0	-2.9	-18.1	18.1	84.3	-1.2	-16.5	14.2	85.9	1.6	ASCENDING	173	106-108	20141029_20230620	224	678	71.58559	34.02181	0.30	0.74	0.71	57.30
Philadelphia	-75.16	39.99	United States	North America	1	0.2	-2.7	0.5	8.3	-1.2	-4.1	0.7	41.6	-1.4	ASCENDING	106	128	20170411_20230627	181	685	-75.12824	40.02644	0.30	0.35	0.83	78.90
Phnom Penh	104.89	11.56	Cambodia	Southeast Asia	0	-5.3	-26.8	29.5	94.6	6.9	-14.6	8.2	52.3	12.2	ASCENDING	26	32-34	20170313_20230529	189	565	104.84711	11.56370	0.30	0.65	0.71	45.80
Phoenix	-112.06	33.50	United States	North America	1	0.0	-2.6	0.5	10.1	-0.8	-3.4	0.6	36.9	-0.8	DESCENDING	27	479-483	20150417_20230622	189	562	-112.05154	33.55553	0.30	0.23	0.89	83.60
Pittsburgh	-79.98	40.43	United States	North America	1	-0.1	-3.0	0.2	10.6	-1.7	-4.6	0.3	42.4	-1.6	ASCENDING	77	126-128	20160414_20230613	191	719	-79.9875	40.4267	0.35	0.19	0.78	67.70
Port Au	-	18.5	Haiti	North	0	-0.1	-8.4	3.7	36.9	1.0	-7.3	3.0	40.7	1.1	ASCENDING	4	55-56	20150121_20230	210	732	-	18.5282	0.30	0.50	0.75	69.10

Prince	72.29	7	Americ a											G				620				72.3551			8					
		-																				3								
Port Elizabeth	25.52	33.85	South Africa	Africa	0	-0.2	-11.5	7.3	49.5	0.2	-11.1	6.6	60.9	0.4	ASCENDING	87	1067-1069	20150328_20230626	254	892	25.56858	-33.79062	0.40	0.25	0.90	53.40				
Port Harcourt	7.12	4.82	Nigeria	Africa	0	-0.6	-11.7	6.1	56.1	-1.4	-12.6	6.9	76.7	-0.9	ASCENDING	30	1194-1196	20150405_20230622	242	935	6.99517	4.79620	0.40	0.25	0.88	59.90				
Portland	-122.65	45.51	United States	North America	1	0.3	-2.5	0.2	5.5	-1.0	-3.8	0.3	36.8	-1.3	DESCENDING	13	439-441	20150603_20230621	230	911	-122.65575	45.51560	0.35	0.15	0.87	56.70				
Porto	-8.55	41.21	Portugal	Europe	1	-0.5	-3.9	0.2	20.6	-0.4	-3.8	0.2	30.2	0.0	DESCENDING	125	452-454	20141201_20230629	405	1394	-8.62333	41.16091	0.40	0.09	0.91	91.90				
Porto Alegre	-51.13	-29.98	Brazil	South America	0	-1.3	-27.1	19.3	83.7	8.0	-17.8	9.6	56.1	9.3	DESCENDING	24	691-692	20150523_20211211	186	604	-51.20093	-30.00746	0.30	0.43	0.80	54.20				
Prague	14.45	50.08	Czech	Europe	1	-1.4	-12.2	7.1	67.8	1.2	-9.7	4.7	48.9	2.5	DESCENDING	95	424-426	20141012_20230627	401	1437	14.43786	50.07402	0.35	0.11	0.85	57.70				
Pretoria	28.16	25.73	South Africa	Africa	0	-1.1	-7.5	2.8	49.8	0.2	-6.2	2.2	42.4	1.4	ASCENDING	116	1093-1095	20150610_20230628	239	696	28.37065	-25.71371	0.35	0.38	0.85	52.40				
Providence	-71.39	41.84	United States	North America	1	-0.1	-2.0	0.0	6.5	-0.2	-2.2	0.0	22.8	-0.2	ASCENDING	135	130-132	20160406_20230629	178	638	-71.40090	41.78897	0.35	0.20	0.84	40.40				
Puebla	-98.29	19.08	Mexico	North America	0	-3.5	-20.0	19.2	87.2	-1.3	-17.9	14.4	87.7	2.1	DESCENDING	143	527-528	20150107_20211219	209	578	-98.19918	19.03725	0.30	0.24	0.82	63.30				
Pune	73.83	18.56	India	South Asia	0	-0.2	-2.6	0.1	10.1	-0.6	-3.0	0.1	29.1	-0.4	DESCENDING	136	530-532	20150224_20230630	177	795	73.82184	18.50792	0.35	0.16	0.84	93.30				

Pyongyang	125.7 2	39.0 3	North Korea	East Asia	0	-0.4	-3.1	0.1	15.5	-0.5	-3.2	0.1	28.6	-0.1	DESCENDI NG	32	462- 464	20141019_20211 211	177	651	125.701 41	38.9686 2	0.40	0.17	0.78	66.20
Qingdao	120.2 9	36.2 0	China	East Asia	0	-0.7	-15.6	10.4	67.0	0.4	-14.4	8.8	65.5	1.2	DESCENDI NG	76	471- 474	20150701_20211 214	145	514	120.347 46	36.0841 9	0.30	0.56	0.72	49.20
Qinhuangdao	119.5 8	39.9 4	China	East Asia	0	-1.5	-14.1	10.0	73.3	3.3	-9.3	4.4	42.7	4.9	ASCENDIN G	171	125- 128	20170404_20230 527	168	480	119.576 43	39.9486 6	0.30	0.59	0.70	60.20
Qiqihar	123.9 7	47.3 3	China	East Asia	0	-2.4	-10.6	5.9	68.2	0.0	-8.2	3.1	52.3	2.4	DESCENDI NG	3	433- 437	20150602_20211 221	168	554	124.018 00	47.3424 3	0.30	0.23	0.73	57.90
Quanzhou	118.6 2	24.8 5	China	East Asia	0	-3.9	-19.2	21.6	88.5	1.7	-13.6	9.3	57.3	5.6	ASCENDIN G	142	75-76	20160805_20230 630	182	532	118.596 05	24.9179 9	0.30	0.92	0.73	52.30
Quezon City	121.0 5	14.6 5	Philippine s	Southea st Asia	0	-0.6	-5.0	1.2	31.8	-2.5	-7.0	2.1	59.4	-2.0	DESCENDI NG	32	542- 545	20141019_20230 622	248	788	121.038 13	14.6699 4	0.30	0.36	0.90	80.30
Quito	- 78.47	- 0.15	Ecuador	South Americ a	0	-0.8	-4.9	1.1	35.1	2.8	-1.3	0.6	11.2	3.5	DESCENDI NG	142	590- 592	20141015_20230 630	324	1086	- 78.4803 0	-0.16559	0.40	0.14	0.94	97.90
Rajkot	70.80	22.3 0	India	South Asia	0	-0.5	-5.1	0.6	27.1	-0.1	-4.6	0.5	32.8	0.5	DESCENDI NG	107	517- 519	20150222_20230 616	201	830	70.8034 9	22.2847 6	0.40	0.14	0.88	58.30
Raleigh	- 78.72	35.8 4	United States	North Americ a	1	-0.3	-4.3	0.6	20.2	-0.5	-4.5	0.6	37.9	-0.2	ASCENDIN G	77	111- 113	20150315_20230 613	204	798	- 78.6378 9	35.7842 1	0.30	0.27	0.67	57.40
Ranchi	85.39	23.4 7	India	South Asia	0	-0.3	-9.2	4.2	43.7	-2.0	-10.9	6.1	75.5	-1.7	DESCENDI NG	121	515- 517	20161003_20230 629	214	964	85.3033 4	23.3603 0	0.35	0.18	0.84	87.60
Rangoon	96.15	16.8 6	Myanmar	Southea st Asia	0	-6.4	-47.2	36.9	97.5	-3.1	-43.8	32.0	97.1	3.3	DESCENDI NG	33	535- 537	20141112_20230 529	131	450	96.1557 0	16.8169 6	0.30	0.59	0.68	49.10
Rawalpindi	73.07	33.6 1	Pakistan	South Asia	0	-4.1	-24.9	25.3	92.1	1.1	-19.6	13.4	67.5	5.2	ASCENDIN G	100	104- 106	20141024_20230 627	222	669	73.0521 1	33.5573 2	0.30	0.81	0.72	68.40
Recife	- 34.92	- 8.08	Brazil	South Americ	0	-1.6	-12.2	9.0	71.0	-1.6	-12.3	9.0	79.4	0.0	DESCENDI NG	9	618	20170204_20220 427	153	575	- 34.9077	-8.02048	0.30	1.13	0.85	76.10

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Rio de Janeiro	-43.21	-22.91	Brazil	South America	0	-1.0	-9.1	4.2	55.3	3.6	-4.4	2.0	22.9	4.6	DESCENDING	155	665-666	20150508_20220224	172	616	-43.27719	-22.88963	0.30	0.53	0.86	44.10
Rome	12.51	41.83	Italy	Europe	1	-2.1	-15.4	11.7	78.0	2.8	-10.5	5.4	47.2	4.9	ASCENDING	117	132-134	20141013_20230628	411	1427	12.47367	41.89614	0.35	0.23	0.87	81.70
Rostov	39.73	47.23	Russia	Russia	0	0.2	-5.3	1.7	22.0	0.0	-5.5	1.8	40.6	-0.2	DESCENDING	21	433-436	20151119_20230622	241	833	39.70296	47.22870	0.30	0.14	0.81	44.60
Rotterdam	4.48	51.92	Netherlands	Europe	1	-0.5	-4.8	1.1	29.2	-0.2	-4.5	1.0	36.6	0.3	DESCENDING	37	419-421	20141207_20230623	403	2119	4.50327	51.89285	0.35	0.13	0.76	64.40
Sacramento	-121.40	38.61	United States	North America	1	-0.3	-5.0	2.1	29.2	-2.4	-7.2	3.0	63.0	-2.2	ASCENDING	35	122-123	20161226_20230623	163	543	-121.46321	38.56190	0.30	0.30	0.77	89.10
Salvador	-38.42	12.93	Brazil	South America	0	-0.7	-13.3	7.9	62.2	0.9	-11.7	6.4	55.5	1.6	DESCENDING	82	633	20160930_20230614	198	764	-38.48019	-12.95727	0.30	0.64	0.77	56.00
San Antonio	-98.50	29.50	United States	North America	1	-1.2	-9.5	4.5	59.2	0.1	-8.2	3.4	52.1	1.4	ASCENDING	107	93	20160417_20230628	185	663	-98.50076	29.41091	0.30	0.58	0.71	74.20
San Bernardino	-117.30	34.10	United States	North America	1	-2.0	-11.0	7.2	69.0	-0.1	-9.1	3.2	55.1	1.9	ASCENDING	64	108-110	20150207_20230625	303	1329	-117.28126	34.14735	0.30	0.21	0.89	94.40
San Diego	-117.16	32.75	United States	North America	1	-1.4	-10.7	5.8	64.7	-0.7	-10.0	5.0	67.4	0.7	ASCENDING	64	103-104	20150327_20230625	286	1080	-117.15471	32.79286	0.30	0.29	0.85	85.20
San Francisco	-122.42	37.78	United States	North America	1	-0.2	-5.7	1.9	28.9	-0.5	-6.0	2.1	49.0	-0.3	DESCENDING	115	466-468	20150222_20230628	256	806	-122.43458	37.75567	0.30	0.10	0.94	90.50

San Jose	- 84.10	9.95	Costa Rica	North Americ a	0	-1.0	-7.2	3.0	48.6	1.3	-4.9	2.1	30.1	2.4	ASCENDIN G	92	25-27	20141023_20230 626	205	800	- 84.1035 8	9.94132	0.35	0.44	0.85	79.10
San Jose	- 121.9 0	37.3 2	United States	North Americ a	1	-0.3	-2.0	0.0	10.3	-0.2	-2.0	0.0	22.6	0.1	ASCENDIN G	35	117- 119	20160119_20230 623	267	1055	- 121.898 29	37.2599 7	0.30	0.27	0.90	85.30
San Juan	- 66.09	18.3 6	Puerto Rico	North Americ a	0	-0.5	-3.8	0.6	22.9	0.3	-3.0	0.5	23.2	0.8	ASCENDIN G	135	53-55	20150518_20230 629	194	746	- 66.0533 9	18.4044 2	0.30	0.57	0.80	81.70
San Salvador	- 89.20	13.7 0	El Salvador	North Americ a	0	-1.7	-6.4	0.8	44.8	1.6	-3.2	0.4	14.6	3.3	DESCENDI NG	128	547- 548	20150506_20230 629	182	647	- 89.2192 3	13.7001 7	0.30	0.19	0.91	75.00
Sanaa	44.22	15.3 9	Yemen	West- Central Asia	0	-0.8	-12.2	6.7	61.4	-1.6	-13.0	7.4	78.6	-0.7	ASCENDIN G	43	46-48	20141020_20230 623	235	875	44.1996 1	15.3592 6	0.40	0.42	0.89	88.90
Santa Cruz	- 63.16	- 17.7 9	Bolivia	South Americ a	0	0.7	-4.5	1.0	14.7	-0.7	-5.8	1.4	47.8	-1.3	DESCENDI NG	10	650- 653	20150603_20230 609	189	658	- 63.1140 3	- 17.8102 2	0.30	0.27	0.79	39.50
Santiago	- 70.66	- 33.4 8	Chile	South Americ a	0	-0.4	-5.1	0.6	25.2	-0.7	-5.4	0.7	43.2	-0.3	DESCENDI NG	83	703- 705	20150103_20230 626	297	1074	- 70.6496 7	- 33.4905 5	0.30	0.25	0.84	41.20
Santiago	- 70.69	19.4 6	The Dominican Republic	North Americ a	0	0.0	-4.5	1.0	18.0	4.2	-0.3	0.3	7.0	4.2	ASCENDIN G	106	58-61	20141012_20230 627	218	846	- 70.7200 2	19.4782 1	0.35	0.34	0.91	38.70
Santo Domingo	- 69.93	18.4 9	The Dominican Republic	North Americ a	0	-0.4	-4.6	1.9	29.4	-0.7	-4.8	2.0	47.2	-0.3	ASCENDIN G	33	55-57	20141019_20230 622	221	843	- 69.9264 6	18.4660 8	0.30	0.30	0.87	94.90
Santos	-	-	Brazil	South	0	-1.5	-8.3	3.4	55.8	0.9	-5.9	2.0	34.6	2.4	DESCENDI	53	669-	20150101_20230	384	1357	-	-	0.30	0.15	0.86	81.40

	46.41	23.89		America										NG	671	624			46.32030	23.94950							
Sao Luis	-	-		South America	0	-0.9	-7.5	2.4	47.4	-0.6	-7.1	2.2	53.2	0.3	DESCENDING	24	598-600	20150429_20230622	206	825	-	44.22152	-2.48814	0.40	0.26	0.87	35.20
Sao Paulo	-	-		South America	0	-0.4	-6.1	2.5	35.6	-1.1	-6.8	2.7	57.3	-0.7	DESCENDING	53	670-672	20151121_20230624	371	1023	-	46.62166	23.53927	0.30	0.24	0.91	65.60
Sapporo	141.41	43.05		East Asia	1	0.3	-3.4	0.6	10.3	2.8	-0.8	0.3	8.5	2.6	DESCENDING	46	448-451	20141125_20230623	227	661	141.32804	43.06327	0.30	0.19	0.81	34.30	
Seattle	-	47.60		North America	1	-0.4	-2.5	0.1	14.1	-0.7	-2.7	0.1	29.5	-0.3	ASCENDING	137	152-154	20150107_20230630	189	701	-	122.31552	47.60246	0.30	0.14	0.81	72.40
Semarang	110.44	-		Southeast Asia	0	-1.6	-151.4	37.4	91.5	-0.6	-150.3	37.0	90.4	1.0	DESCENDING	76	613-615	20141115_20230613	198	654	110.41525	-7.01467	0.30	0.35	0.81	54.40	
Sendai	140.96	38.28		East Asia	1	-1.2	-9.2	4.2	57.6	4.9	-3.2	0.9	13.1	6.1	DESCENDING	46	463-467	20141125_20230623	229	886	140.89383	38.27171	0.35	0.21	0.89	48.30	
Seoul	126.95	37.54		East Asia	1	-0.4	-3.0	0.3	17.1	1.0	-1.6	0.2	13.3	1.4	ASCENDING	127	119-120	20150623_20230629	175	534	126.96409	37.54987	0.30	0.37	0.85	73.20	
Seville	-5.97	37.36		Europe	1	-0.9	-13.6	8.8	66.5	11.6	-1.2	1.4	12.3	12.5	ASCENDING	74	117-119	20150607_20230625	402	1480	-6.00763	37.38262	0.35	0.25	0.92	93.60	
Shanghai	121.41	31.20		East Asia	0	-1.8	-15.7	12.1	77.6	-0.5	-14.4	9.8	76.1	1.3	ASCENDING	171	96-97	20150226_20221222	200	672	121.45656	31.19569	0.30	0.43	0.73	55.30	
Shangqiu	115.64	34.43		East Asia	0	-0.8	-16.3	11.9	70.0	5.3	-10.2	5.1	44.1	6.1	ASCENDING	40	106-109	20170314_20230623	185	544	115.61799	34.43651	0.30	0.71	0.68	29.60	
Shangrao	118.01	28.50		East Asia	0	-2.8	-16.4	15.7	81.9	0.6	-13.1	8.7	62.4	3.4	ASCENDING	142	86-89	20170321_20230630	183	518	117.87925	28.42694	0.30	0.58	0.65	49.40	
Shantou	116.6	23.4		East	0	-5.3	-30.9	34.0	95.8	-0.9	-26.5	23.2	90.3	4.4	ASCENDING	40	70-72	20150617_20221	173	531	116.743	23.4012	0.30	0.82	0.70	42.50	

	1	4	Asia											G	213				59	5						
Sharjah	55.39	25.36	The United Arab Emirates	West-Central Asia	0	0.1	-5.2	1.2	20.5	0.1	-5.3	1.2	37.1	0.0	DESCENDING	166	508-510	20141029_20230620	211	760	55.41650	25.35212	0.35	0.23	0.80	68.00
Sheffield	-1.39	53.39	United Kingdom	Europe	1	-0.1	-5.7	1.9	27.0	0.0	-5.7	1.9	41.7	0.0	ASCENDING	30	171-173	20150312_20230622	397	1417	-1.49788	53.37274	0.35	0.16	0.87	49.80
Shenyang	123.40	41.79	China	East Asia	0	-0.7	-7.2	2.5	43.9	-0.5	-7.0	2.4	52.5	0.2	DESCENDING	105	451-457	20150209_20220304	178	593	123.28576	41.80026	0.30	0.24	0.72	36.30
Shenzhen	114.10	22.64	China	East Asia	0	-0.2	-7.3	3.0	35.3	0.2	-6.9	2.8	45.5	0.4	ASCENDING	11	65-72	20150615_20221223	215	887	114.13049	22.54975	0.30	0.30	0.75	40.10
Shijiazhuang	114.51	38.11	China	East Asia	0	-0.9	-7.1	2.3	46.0	0.5	-5.6	1.7	35.5	1.5	ASCENDING	40	117-123	20150617_20221213	197	629	114.49971	38.03356	0.30	0.21	0.79	71.50
Shiraz	52.54	29.60	Iran	West-Central Asia	0	-3.6	-9.4	3.9	64.9	-2.8	-8.6	3.1	67.0	0.9	ASCENDING	28	91-93	20141019_20230622	229	861	52.51204	29.63451	0.40	0.52	0.96	91.50
Sholapur	75.91	17.66	India	South Asia	0	-1.2	-13.6	9.7	70.3	0.1	-12.2	7.6	64.7	1.4	DESCENDING	63	531-533	20160929_20230625	183	697	75.92208	17.65838	0.35	0.22	0.78	32.50
Singapore	103.81	1.39	Singapore	Southeast Asia	1	-0.8	-14.9	8.3	65.7	-5.9	-20.1	17.2	94.3	-5.2	DESCENDING	18	585-589	20141123_20230504	217	617	103.88140	1.35610	0.30	0.35	0.81	63.30
Sofia	23.36	42.69	Bulgaria	Europe	0	-0.9	-8.7	3.9	53.0	-0.3	-8.2	3.6	56.7	0.6	ASCENDING	29	137-139	20141019_20230622	416	2135	23.32524	42.70200	0.40	0.17	0.86	11.70
Srinagar	74.81	34.08	India	South Asia	0	-0.5	-5.2	0.9	29.0	2.4	-2.3	0.4	11.5	2.9	DESCENDING	34	478-480	20141020_20230623	224	932	74.81384	34.09291	0.40	0.11	0.91	48.20
St Louis	-90.26	38.65	United States	North America	1	0.0	-2.8	0.2	8.8	-0.5	-3.3	0.3	31.1	-0.5	ASCENDING	92	119-121	20150714_20230626	213	784	-90.30977	38.58947	0.35	0.23	0.81	75.90
St Petersburg	30.34	59.8	Russia	Russia	0	-0.3	-9.6	4.6	45.9	1.6	-7.7	3.0	39.1	1.9	DESCENDING	7	392-	20150919_20230	236	776	30.3606	59.9332	0.30	0.25	0.71	32.90

		8												NG	393	621			1	8						
Stockholm	18.03	59.36	Sweden	Europe	1	0.0	-2.9	0.1	7.8	7.7	4.8	0.0	1.9	7.7	DESCENDING	22	393-396	20160529_20230622	269	1108	18.00317	59.30701	0.35	0.11	0.87	46.70
Stuttgart	9.20	48.79	Germany	Europe	1	-0.9	-12.1	6.5	62.2	1.9	-9.3	4.5	45.2	2.8	DESCENDING	66	428-430	20151110_20230625	358	1289	9.17922	48.77968	0.35	0.12	0.85	69.20
Suining	105.58	30.50	China	East Asia	0	-6.1	-22.9	31.9	93.7	0.8	-15.9	12.3	66.4	7.0	ASCENDING	55	93-97	20160928_20230531	179	506	105.59728	30.49811	0.30	0.46	0.60	36.20
Surabaya	112.74	-7.25	Indonesia	Southeast Asia	0	-1.7	-24.7	16.4	84.0	1.4	-21.5	11.7	65.9	3.1	ASCENDING	54	1153-1156	20151203_20230624	186	610	112.74508	-7.27565	0.30	0.63	0.86	71.70
Surat	72.83	21.14	India	South Asia	0	-0.9	-6.3	1.4	41.6	-0.3	-5.7	1.2	42.3	0.6	DESCENDING	34	518-520	20150301_20230623	187	728	72.87409	21.21798	0.40	0.24	0.85	42.50
Suwon	126.99	37.38	South Korea	East Asia	1	-0.8	-6.2	1.1	38.8	0.3	-5.1	0.7	32.0	1.1	DESCENDING	32	467-469	20150604_20211211	157	564	127.01538	37.26083	0.35	0.21	0.75	75.90
Suzhou	120.60	31.36	China	East Asia	0	-2.4	-18.0	16.0	82.4	-1.0	-16.5	13.0	84.4	1.5	ASCENDING	171	96-99	20150708_20221222	235	921	120.64575	31.30186	0.30	0.79	0.75	35.90
Sydney	151.09	-33.85	Australia	Oceania	1	-0.2	-5.0	1.7	25.9	-1.7	-6.5	2.3	57.8	-1.5	ASCENDING	9	1066-1067	20150404_20230621	129	501	150.97132	-33.83121	0.30	0.84	0.85	94.30
Tabriz	46.29	38.06	Iran	West-Central Asia	0	-0.3	-7.2	2.0	34.5	1.7	-5.2	1.1	24.9	2.0	DESCENDING	79	464-467	20141104_20230614	223	658	46.28366	38.07698	0.30	0.15	0.89	89.70
Taian	117.12	36.18	China	East Asia	0	-1.0	-9.0	3.9	54.1	1.3	-6.7	2.2	35.6	2.4	ASCENDING	142	111-114	20151127_20230630	210	577	117.0966	36.1846	0.30	0.38	0.79	22.90
Taichung	120.59	24.13	China	East Asia	0	-1.8	-19.0	16.2	81.6	0.1	-17.2	12.7	74.1	1.8	ASCENDING	69	73-75	20151122_20221227	305	768	120.69727	24.09582	0.30	0.38	0.82	54.30
Tainan	120.24	22.98	China	East Asia	0	-1.6	-16.3	16.5	79.2	4.6	-10.2	5.2	44.6	6.1	DESCENDING	105	514-516	20141105_20230627	202	568	120.24684	23.03672	0.30	0.52	0.71	28.30
Taipei	121.5	25.0	China	East	0	0.8	-9.6	4.8	37.6	3.9	-6.5	3.1	32.8	3.1	DESCENDING	105	508-	20151124_20230	304	1056	121.516	25.0380	0.30	0.48	0.86	51.50

	6	4		Asia											NG	510	627			48	3						
Taiyuan	112.5 5	37.7 7		China	East Asia	0	-0.7	-28.0	20.8	77.7	1.4	-26.0	17.6	69.7	2.1	ASCENDIN G	113	116- 122	20150411_20230 628	199	746	112.542 17	37.7780 8	0.30	1.60	0.74	86.40
Tampa	- 82.49	27.9 7		United States	North Americ a	1	-0.6	-5.3	1.5	34.3	-0.5	-5.2	1.4	44.4	0.1	ASCENDIN G	121	84-86	20161008_20230 628	196	739	- 82.4760 8	27.9658 0	0.35	0.45	0.71	57.90
Tangshan	118.1 9	39.6 9		China	East Asia	0	-0.8	-17.2	11.3	70.5	0.7	-15.8	9.4	64.9	1.4	ASCENDIN G	69	458- 462	20150701_20220 805	196	464	118.268 78	39.6692 2	0.30	0.37	0.80	44.10
Tashkent	69.24	41.2 9		Uzbekista n	West- Central Asia	0	-0.2	-4.8	0.8	21.4	2.9	-1.7	0.3	8.9	3.1	DESCENDI NG	151	455- 456	20151128_20230 619	186	600	69.2298 7	41.3335 8	0.30	0.20	0.88	86.30
Tbilisi	44.83	41.7 1		Georgia	West- Central Asia	0	-0.1	-6.9	2.3	30.5	-0.8	-7.5	2.7	57.3	-0.7	ASCENDIN G	174	131- 134	20151129_20230 620	216	624	44.7778 5	41.7311 4	0.30	0.42	0.77	67.10
Tehran	51.36	35.6 9		Iran	West- Central Asia	0	-0.3	-43.0	8.7	64.2	0.4	-42.4	8.5	71.3	0.6	ASCENDIN G	28	110- 123	20150417_20230 622	221	655	51.4548 7	35.7260 6	0.30	0.33	0.91	97.30
Tel Aviv Yafo	34.86	32.0 7		Israel	West- Central Asia	1	-0.4	-11.6	6.1	52.5	0.7	-10.4	5.3	54.8	1.1	ASCENDIN G	87	101- 103	20141011_20230 626	412	1466	34.7832 2	32.0520 9	0.30	0.16	0.84	93.20
The Hague	4.31	52.0 8		Netherland s	Europe	1	-0.7	-4.2	0.7	28.7	-0.8	-4.3	0.7	40.6	0.0	DESCENDI NG	37	419- 421	20141207_20230 623	402	1545	4.28664	52.0658 6	0.40	0.08	0.85	53.30
Tianjin	117.2 4	39.0 9		China	East Asia	0	-8.3	-64.8	46.5	98.6	3.5	-53.0	29.3	67.7	11.8	ASCENDIN G	69	122- 125	20150114_20230 601	218	731	117.235 74	39.1010 8	0.30	0.95	0.72	41.50
Tianshui	105.7 3	34.5 8		China	East Asia	0	0.5	-11.3	6.7	42.4	0.5	-11.3	6.6	58.4	0.1	DESCENDI NG	62	476- 478	20141009_20230 624	258	946	105.846 81	34.5723 4	0.30	0.27	0.74	71.70
Tijuana	- 117.0	32.5 3		Mexico	North Americ	0	-0.4	-5.7	0.7	28.0	-2.1	-7.5	1.5	57.6	-1.7	DESCENDI NG	173	483- 485	20141029_20230 620	301	939	- 116.990	32.5106 7	0.30	0.35	0.86	91.50

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Tokyo	139.75	35.71	Japan	East Asia	1	0.5	-1.5	0.2	4.0	8.8	6.8	0.0	1.4	8.3	DESCENDING	46	470-476	20141125_20230623	231	686	139.67077	35.67009	0.35	0.24	0.96	67.50
Toluca	-99.62	19.28	Mexico	North America	0	-6.0	-46.0	42.4	97.3	-7.3	-47.4	44.7	98.6	-1.4	ASCENDING	78	56-59	20141023_20230626	336	1647	-99.68096	19.26550	0.35	0.33	0.78	58.60
Toronto	-79.47	43.74	Canada	North America	1	-0.3	-3.6	0.5	17.4	-0.6	-3.8	0.5	35.4	-0.2	ASCENDING	4	140	20160924_20230620	185	655	-79.38661	43.68162	0.30	0.44	0.77	74.80
Torreón	-103.45	25.55	Mexico	North America	0	-17.3	-79.5	60.2	99.4	-12.0	-74.3	53.2	99.2	5.3	ASCENDING	151	77-79	20160115_20230619	198	919	-103.46337	25.53552	0.35	0.36	0.92	94.80
Tripoli	13.17	32.82	Libya	Africa	0	-0.4	-7.1	1.8	35.4	-0.6	-7.3	1.9	51.9	-0.2	ASCENDING	15	102-104	20150603_20230621	386	1391	13.17748	32.84706	0.35	0.20	0.83	92.30
Tunis	10.20	36.80	Tunisia	Africa	0	-4.5	-20.7	24.6	90.5	-2.2	-18.4	18.0	91.9	2.4	DESCENDING	95	469-471	20150609_20230627	383	1377	10.17606	36.80742	0.35	0.20	0.91	89.20
Turin	7.66	45.10	Italy	Europe	1	-0.2	-7.6	3.1	35.9	1.7	-5.8	2.2	31.5	1.9	ASCENDING	88	142-144	20141011_20230626	411	1474	7.67604	45.06009	0.35	0.18	0.89	91.00
Ujungpandang	119.45	-5.18	Indonesia	Southeast Asia	0	-0.8	-10.3	5.2	56.8	-0.5	-9.9	4.9	65.2	0.4	ASCENDING	10	1159-1162	20161212_20230528	148	515	119.44689	-5.16378	0.30	0.66	0.83	71.10
Ulsan	129.36	35.51	South Korea	East Asia	1	-0.9	-8.5	3.3	51.3	2.9	-4.7	1.4	22.9	3.8	ASCENDING	54	109-112	20150525_20230624	196	445	129.35375	35.50392	0.35	0.34	0.77	23.40
Urumqi	87.58	43.88	China	East Asia	0	2.2	-15.3	10.7	50.0	0.1	-17.4	14.3	75.3	-2.1	ASCENDING	41	138-141	20150124_20221225	206	677	87.61055	43.80936	0.30	0.45	0.74	49.00
Vadodara	73.09	22.40	India	South Asia	0	-0.7	-10.5	5.6	55.8	-0.5	-10.4	5.4	66.9	0.2	DESCENDING	34	514-516	20160927_20230623	184	527	73.15375	22.32216	0.35	0.22	0.87	38.50
Valencia	-67.98	10.20	Venezuela	South America	0	0.4	-5.0	1.3	18.6	0.4	-5.0	1.3	33.8	0.0	DESCENDING	25	554-556	20141031_20230622	212	868	-68.0115	10.17220	0.30	0.27	0.91	62.40

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Vancouver	-123.03	49.20	Canada	North America	1	-0.3	-2.7	0.4	14.8	0.6	-1.8	0.3	17.7	0.9	ASCENDING	137	158-160	20150107_20230630	188	688	-123.15269	49.25360	0.30	0.12	0.89	94.00
Vereeniging	27.93	-26.57	South Africa	Africa	0	-0.8	-10.2	5.1	56.6	0.1	-9.3	4.5	56.6	0.9	ASCENDING	116	1088-1090	20150330_20230628	244	942	27.92846	-26.61435	0.30	0.29	0.83	87.80
Vienna	16.38	48.18	Austria	Europe	1	-0.7	-4.2	1.1	31.0	0.0	-3.6	1.0	31.2	0.7	ASCENDING	146	152-154	20150612_20230630	396	2064	16.37852	48.22028	0.35	0.14	0.89	60.80
Vila Velha	-40.29	-20.34	Brazil	South America	0	-1.2	-12.0	6.7	65.1	-0.2	-11.1	5.8	64.4	0.9	DESCENDING	82	657-659	20150527_20230614	219	822	-40.30469	-20.34651	0.40	0.18	0.83	48.70
Virginia Beach	-76.13	36.81	United States	North America	1	-0.7	-7.7	3.3	46.5	-1.4	-8.5	3.7	65.4	-0.8	ASCENDING	106	117-119	20150317_20230627	207	819	-76.10913	36.79786	0.35	0.31	0.85	40.30
Vishakhapatnam	83.23	17.68	India	South Asia	0	-0.8	-14.1	9.3	66.2	-0.3	-13.7	8.7	71.9	0.5	DESCENDING	19	530-532	20150616_20230622	235	968	83.29700	17.73256	0.35	0.31	0.72	43.30
Vitoria	-40.31	-20.29	Brazil	South America	0	-0.8	-9.1	4.1	52.8	0.1	-8.2	3.5	52.4	0.8	DESCENDING	82	657-659	20150527_20230614	219	837	-40.28925	-20.31399	0.40	0.31	0.79	51.00
Warangal	79.58	18.00	India	South Asia	0	0.0	-4.4	0.4	13.9	-0.6	-5.0	0.5	39.9	-0.6	DESCENDING	92	530-532	20160709_20230627	213	866	79.60053	17.98193	0.40	0.15	0.82	34.90
Warsaw	21.00	52.24	Poland	Europe	0	-0.7	-8.8	4.0	50.0	2.5	-5.6	2.2	29.3	3.2	DESCENDING	51	417-418	20141208_20230624	249	648	21.04568	52.25158	0.30	0.17	0.81	64.30
Washington DC	-77.04	38.90	United States	North America	1	-0.1	-2.3	0.1	7.8	-0.9	-3.0	0.1	31.8	-0.7	ASCENDING	4	124-126	20150310_20230620	198	765	-77.02318	38.94175	0.30	0.24	0.81	70.70
Weifang	119.1	36.7	China	East	0	-1.8	-19.6	13.9	80.7	0.8	-17.1	10.2	65.7	2.6	ASCENDING	69	114-	20160109_20230	251	1026	119.783	36.4007	0.30	0.80	0.69	41.20

	6	1		Asia										G	115	613			93	5						
Wenzhou	120.69	27.94	China	East Asia	0	-3.0	-32.6	23.0	91.5	0.1	-29.4	17.1	79.4	3.2	ASCENDING	69	84-90	20170328_20221227	166	570	120.64391	28.00461	0.35	0.55	0.74	36.20
West Palm Beach	-80.17	26.70	United States	North America	1	0.2	-2.7	0.2	6.5	-0.5	-3.4	0.2	30.5	-0.8	ASCENDING	48	83-85	20150921_20230611	187	677	-80.10405	26.74549	0.35	0.43	0.76	27.10
Wuhan	114.30	30.57	China	East Asia	0	-2.0	-15.1	11.3	77.0	0.2	-12.9	7.9	64.9	2.2	ASCENDING	113	94-97	20150411_20221230	210	614	114.30801	30.36006	0.30	0.39	0.73	36.40
Wuxi	120.30	31.64	China	East Asia	0	-1.4	-14.5	10.0	73.3	-0.3	-13.4	8.4	71.3	1.1	ASCENDING	69	98-100	20151122_20210623	212	653	120.31102	31.55354	0.30	0.39	0.77	69.60
Xiamen	118.03	24.53	China	East Asia	0	-3.5	-21.5	21.7	89.2	0.1	-18.0	14.0	75.4	3.5	ASCENDING	142	75-78	20160805_20221220	167	628	118.15137	24.66215	0.30	0.47	0.71	56.20
Xi'an	108.90	34.29	China	East Asia	0	0.1	-10.1	5.1	40.3	0.5	-9.7	4.7	53.7	0.4	ASCENDING	84	105-109	20150620_20221228	185	672	108.89322	34.15981	0.30	0.45	0.75	60.10
Xiangtan	113.01	27.94	China	East Asia	0	-1.7	-10.8	6.2	66.8	0.4	-8.6	3.4	49.8	2.1	ASCENDING	11	85-87	20150404_20230621	205	771	112.91457	27.81241	0.30	0.45	0.57	46.60
Xiangyang	112.16	32.07	China	East Asia	0	-0.3	-6.3	1.5	31.0	0.3	-5.7	1.2	36.1	0.6	ASCENDING	11	98-102	20150404_20230621	192	861	112.14576	32.06328	0.35	0.24	0.75	32.20
Xiantao	113.43	30.38	China	East Asia	0	-1.4	-9.5	4.4	60.9	1.0	-7.1	2.5	38.6	2.4	ASCENDING	113	95-97	20150411_20230628	225	857	113.43530	30.35918	0.40	0.30	0.76	13.20
Xianyang	108.84	34.28	China	East Asia	0	-1.7	-11.4	7.2	68.2	0.7	-9.0	3.8	49.1	2.4	ASCENDING	84	104-106	20150620_20230614	212	802	108.68447	34.33198	0.30	0.30	0.71	87.80
Xining	101.79	36.63	China	East Asia	0	-1.4	-13.3	9.2	71.4	0.9	-11.0	6.0	54.3	2.3	ASCENDING	128	114-116	20150705_20221231	197	658	101.81072	36.62323	0.30	0.42	0.70	54.70
Xinyang	114.10	32.13	China	East Asia	0	-0.4	-8.4	3.4	42.3	0.4	-7.6	2.7	45.1	0.8	ASCENDING	113	100-102	20150411_20230628	225	855	114.06084	32.12961	0.30	0.32	0.60	31.20
Xuzhou	117.21	34.26	China	East Asia	0	-1.4	-9.2	4.0	58.9	0.7	-7.0	2.2	40.1	2.2	ASCENDING	142	106-109	20151127_20221220	181	568	117.17619	34.26793	0.30	0.35	0.75	73.50

Yantai	121.37	37.49	China	East Asia	0	-3.0	-15.9	15.7	82.2	0.4	-12.5	8.1	62.9	3.5	ASCENDING	98	117-120	20160311_20221229	263	871	121.58871	37.43690	0.30	0.39	0.75	73.50
Yaounde	11.53	3.86	Cameroon	Africa	0	-0.5	-6.5	1.9	36.3	-0.5	-6.5	1.9	49.2	0.0	ASCENDING	59	1193-1195	20150606_20230624	238	918	11.53557	3.85110	0.35	0.27	0.84	60.60
Yekaterinburg	60.63	56.84	Russia	Russia	0	-4.0	-25.6	28.1	93.0	1.9	-19.7	15.3	65.7	5.9	DESCENDING	64	403-404	20170226_20211214	98	309	60.61757	56.82955	0.30	0.56	0.60	26.70
Yerevan	44.45	40.14	Armenia	West-Central Asia	0	-0.2	-4.5	0.7	19.9	0.0	-4.3	0.7	32.1	0.2	ASCENDING	72	125-128	20141010_20230625	251	736	44.51534	40.19012	0.30	0.25	0.85	87.30
Yiyang	112.38	28.58	China	East Asia	0	-0.9	-6.2	0.8	38.3	2.0	-3.3	0.2	11.5	2.9	ASCENDING	11	90-92	20150404_20230621	199	745	112.34646	28.55955	0.35	0.21	0.75	26.10
Yokohama	139.58	35.51	Japan	East Asia	1	-1.2	-4.8	0.1	31.8	8.9	5.3	0.0	1.5	10.1	DESCENDING	46	473-477	20150418_20230623	219	637	139.54111	35.50920	0.30	0.28	0.96	96.30
Yulin	110.19	22.64	China	East Asia	0	-1.2	-9.4	4.3	58.4	0.2	-8.0	2.9	48.7	1.4	ASCENDING	84	69-71	20150620_20230626	219	806	110.14579	22.65052	0.40	0.46	0.72	18.50
Zaozhuang	117.56	34.84	China	East Asia	0	-0.2	-10.5	5.5	45.9	1.7	-8.6	3.9	42.9	2.0	ASCENDING	142	109-112	20150730_20230630	202	568	117.54044	34.85003	0.30	0.52	0.73	39.60
Zhangjiakou	114.93	40.71	China	East Asia	0	-1.1	-9.6	4.5	58.5	0.9	-7.6	2.8	41.2	2.0	ASCENDING	142	130-132	20150730_20230630	216	796	114.89645	40.77692	0.35	0.43	0.81	63.10
Zhangzhou	117.80	24.48	China	East Asia	0	-1.4	-13.2	9.5	71.3	-0.4	-12.2	7.7	70.1	1.0	ASCENDING	40	76-78	20150617_20230623	235	894	117.79094	24.45750	0.35	0.47	0.67	21.20
Zhanjiang	110.38	21.23	China	East Asia	0	-0.5	-14.3	9.7	61.1	0.6	-13.2	8.2	62.2	1.1	ASCENDING	157	62-65	20141016_20230607	212	632	110.30964	21.27478	0.35	0.39	0.70	17.50
Zhengzhou	113.66	34.76	China	East Asia	0	0.7	-9.8	4.8	38.0	0.3	-10.3	5.3	57.8	-0.5	ASCENDING	113	110-112	20161002_20230628	194	707	113.54970	34.82280	0.40	0.39	0.74	36.10
Zhuhai	113.43	22.41	China	East Asia	0	-4.4	-44.6	32.4	95.5	3.9	-36.3	20.3	65.9	8.3	ASCENDING	11	65-70	20151212_20230621	217	648	113.50928	22.24242	0.40	0.67	0.77	20.50
Zhuzhou	113.0	27.8	China	East	0	-1.0	-9.4	4.2	56.0	0.6	-7.8	2.5	43.3	1.6	ASCENDING	11	85-87	20150404_20230621	205	771	113.129	27.8135	0.30	0.31	0.59	44.50

	4	9	Asia												G				621				25			0					
Zibo	118.0	36.7	China	East Asia	0	-2.0	-15.5	11.2	77.5	1.1	-12.4	7.0	56.0	3.1	ASCENDIN	69	114-116	20150701_20221	235	679	118.199	36.7822	0.30	0.48	0.78	59.30					
	2	5												G			227			67	9										
Zigong	104.8	29.3	China	East Asia	0	-1.4	-8.5	3.2	55.6	2.2	-4.9	1.2	24.1	3.6	ASCENDIN	128	88-90	20141014_20230	227	831	104.767	29.3509	0.35	0.19	0.71	28.70					
	5	5												G			605			82	0										
Zurich	8.58	47.3	Switzerlan d	Europe	1	-0.2	-3.6	0.5	15.5	-0.4	-3.7	0.5	32.6	-0.2	DESCENDI	66	433-435	20141010_20230	381	1328	8.53190	47.3916	0.40	0.09	0.88	56.10					
		7												NG			625				6										

Table S3. Literature review of existing studies on InSAR-based urban subsidence. Previous studies were identified through Google Scholar searches using combinations of the city name, “subsidence”, and “InSAR” as keywords. For cities with multiple relevant studies, only one representative study is provided for brevity. DOI information is provided where available. For references without an assigned DOI, the corresponding table entry is marked as “NA*”, and the full bibliographic information is provided below the table.

City	Country	Reference	DOI
Abbottabad	Pakistan	Shahzad et al., 2020	10.3390/rs12203442
Abidjan	Ivory Coast	Tay et al., 2022	10.1038/s41893-022-00947-z
Accra	Ghana	Wu et al., 2022	10.1029/2022GL098477
Addis Ababa	Ethiopia	Alemu & Floris, 2025	10.3390/land14051020
Adelaide	Australia	Wu et al., 2022	10.1029/2022GL098477
Ahmedabad	India	Tay et al., 2022	10.1038/s41893-022-00947-z
Alexandria	Egypt	Tay et al., 2022	10.1038/s41893-022-00947-z
Almaty	Kazakhstan	Bayramov et al., 2025	10.1016/j.asr.2025.11.083
Amsterdam	Netherlands	Wu et al., 2022	10.1029/2022GL098477
Anshan	China	Ao et al., 2024	10.1126/science.adl4366
Asansol	India	Zhu et al., 2026	10.1029/2025GL120539
Athens	Greece	Parcharidis et al., 2006	10.1186/BF03351947
Atlanta	United States	Wu et al., 2022	10.1029/2022GL098477
Auckland	New Zealand	Wu et al., 2022	10.1029/2022GL098477
Aurangabad	India	Zhu et al., 2026	10.1029/2025GL120539
Austin	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Baltimore	United States	Ohenhen et al., 2024	10.1093/pnasnexus/pgad426
Bandung	Indonesia	Ge et al., 2014	10.1016/j.rse.2014.08.004
Bangalore	India	Zhu et al., 2026	10.1029/2025GL120539
Bangkok	Thailand	Tay et al., 2022	10.1038/s41893-022-00947-z
Baoding	China	Zhang et al., 2026	10.1016/j.rse.2025.115164
Baotou	China	Ao et al., 2024	10.1126/science.adl4366

Barcelona	Spain	Tay et al., 2022	10.1038/s41893-022-00947-z
Beijing	China	Ao et al., 2024	10.1126/science.adl4366
Beirut	Lebanon	Wu et al., 2022	10.1029/2022GL098477
Bekasi	Indonesia	Harintaka., 2024	10.1080/10106049.2024.2364726
Bogota	Colombia	Tamayo Duque et al., 2023	10.3390/rs15215249
Boston	United States	Wu et al., 2022	10.1029/2022GL098477
Brisbane	Australia	Wu et al., 2022	10.1029/2022GL098477
Brussels	Belgium	Drougkas et al., 2021	10.1177/1475921720942120
Bucharest	Romania	Armaş et al., 2017	10.1038/srep43762
Buenos Aires	Argentina	Tay et al., 2022	10.1038/s41893-022-00947-z
Bursa	Turkey	Aslan et al., 2019	10.3390/rs11010085
Cairo	Egypt	Nabil et al., 2025	10.1515/jag-2024-0094
Can Tho	Vietnam	Guzy et al., 2025	10.29227/IM-2025-02-63
Cape Town	South Africa	Wu et al., 2022	10.1029/2022GL098477
Caracas	Venezuela	Wu et al., 2022	10.1029/2022GL098477
Casablanca	Morocco	Wu et al., 2022	10.1029/2022GL098477
Changchun	China	Ao et al., 2024	10.1126/science.adl4366
Changsha	China	Ao et al., 2024	10.1126/science.adl4366
Changzhou	China	Ao et al., 2024	10.1126/science.adl4366
Chengdu	China	Ao et al., 2024	10.1126/science.adl4366
Chennai	India	Tay et al., 2022	10.1038/s41893-022-00947-z
Chicago	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Chittagong	Bangladesh	Tay et al., 2022	10.1038/s41893-022-00947-z
Chongqing	China	Ao et al., 2024	10.1126/science.adl4366
Cilacap	Indonesia	Suhadha et al., 2025	10.17794/rgn.2025.4.11
Coimbatore	India	Zhu et al., 2026	10.1029/2025GL120539
Columbus	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Daejeon	South Korea	Kim, 2016	10.7780/kjrs.2016.32.6.2

Dakar	Senegal	Wu et al., 2022	10.1029/2022GL098477
Dalian	China	Ao et al., 2024	10.1126/science.adl4366
Dallas	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Daqing	China	Ao et al., 2024	10.1126/science.adl4366
Dares Salaam	Tanzania	Tay et al., 2022	10.1038/s41893-022-00947-z
Datong	China	Ao et al., 2024	10.1126/science.adl4366
Davao	Philippines	Sulapas et l., 2024	10.1016/j.jag.2024.104107
Delhi	India	Sadhasivam et al., 2025	10.1038/s41893-025-01663-0
Denver	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Detroit	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Dhaka	Bangladesh	Tay et al., 2022	10.1038/s41893-022-00947-z
Doha	Qatar	Wu et al., 2022	10.1029/2022GL098477
Dongguan	China	Ao et al., 2024	10.1126/science.adl4366
Douala	Cameroon	Yemele et al., 2025	10.5194/nhess-26-551-2026
Dubai	The United Arab Emirates	Wu et al., 2022	10.1029/2022GL098477
Durban	South Africa	Dasho et al., 2026	10.21203/rs.3.rs-7760707/v1
Dusseldorf	Germany	Liu et al., 2014	10.5194/nhessd-2-4813-2014
El Giza	Egypt	Nabil et al., 2025	10.1515/jag-2024-0094
Faridabad	India	Kumar et al., 2025	10.1029/2024WR037704
Florence	Italy	Sánchez et al., 2024	10.3390/land13122103
Ft Worth	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Fukuoka	Japan	Tay et al., 2022	10.1038/s41893-022-00947-z
Fushun	China	Sousa et al., 2021	10.3390/rs13214269
Fuzhou	China	Ao et al., 2024	10.1126/science.adl4366
Ganzhou	China	Li et al., 2022	10.5194/isprs-archives-XLIII-B3-2022-293-2022
Ghaziabad	India	Sadhasivam et al., 2025	10.1038/s41893-025-01663-0
Guadalajara	Mexico	Chaussard et al., 2014	10.1016/j.rse.2013.08.038

Guangzhou	China	Ao et al., 2024	10.1126/science.adl4366
Guatemala	Guatemala	García-Lanchares et al., 2023	10.3390/rs15174207
Guayaquil	Ecuador	Bedón et al., 2025	10.1016/j.jsames.2025.105588
Guiyang	China	Ao et al., 2024	10.1126/science.adl4366
Haikou	China	Ao et al., 2024	10.1126/science.adl4366
Hamburg	Germany	Wu et al., 2022	10.1029/2022GL098477
Handan	China	Zhang et al., 2026	10.1016/j.rse.2025.115164
Hangzhou	China	Ao et al., 2024	10.1126/science.adl4366
Hanoi	Vietnam	Wu et al., 2022	10.1029/2022GL098477
Haora	India	Wu et al., 2022	10.1029/2022GL098477
Harbin	China	Ao et al., 2024	10.1126/science.adl4366
Hefei	China	Ao et al., 2024	10.1126/science.adl4366
Heze	China	Yang et al., 2024	10.1016/j.eiar.2023.107315
Hiroshima	Japan	Morishita, 2021	10.1186/s40645-020-00402-7
Ho Chi Minh City	Vietnam	Tay et al., 2022	10.1038/s41893-022-00947-z
Hohhot	China	Ao et al., 2024	10.1126/science.adl4366
Hong Kong	China	Tay et al., 2022	10.1038/s41893-022-00947-z
Houston	United States	Tay et al., 2022	10.1038/s41893-022-00947-z
Huainan	China	Ao et al., 2024	10.1126/science.adl4366
Huzhou	China	He et al., 2024	10.3390/rs16111864
Hyderabad	India	Vaka & Rao, 2023	10.1109/InGARSS59135.2023.10490366
Indianapolis	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Isfahan	Iran	Haghighi & Motagh, 2024	10.1126/sciadv.adk3039
Istanbul	Turkey	Tay et al., 2022	10.1038/s41893-022-00947-z
Jakarta	Indonesia	Tay et al., 2022	10.1038/s41893-022-00947-z
Jamshedpur	India	Zhu et al., 2026	10.1029/2025GL120539

Jilin	China	Ao et al., 2024	10.1126/science.adl4366
Jinan	China	Ao et al., 2024	10.1126/science.adl4366
Jining	China	Wang et al., 2021	10.1155/2021/6662097
Kalyan	India	Zhu et al., 2026	10.1029/2025GL120539
Kaohsiung	China	Ao et al., 2024	10.1126/science.adl4366
Karachi	Pakistan	Tay et al., 2022	10.1038/s41893-022-00947-z
Karaj	Iran	Haghighi & Motagh, 2024	10.1126/sciadv.adk3039
Katowice	Poland	Nádudvari, 2016	10.1515/environ-2016-0003
Kawasaki	Japan	Doke et al., 2015	10.23919/APSAR64635.2025.1139220 9
Kobe	Japan	Morishita, 2021	10.1186/s40645-020-00402-7
Kochi	India	Shastri et al., 2025	10.1007/s11069-024-07102-1
Kolkata	India	Sadhasivam et al., 2025	10.1038/s41893-025-01663-0
Kuala Lumpur	Malaysia	Wu et al., 2022	10.1029/2022GL098477
Kunming	China	Ao et al., 2024	10.1126/science.adl4366
Kyoto	Japan	Morishita, 2021	10.1186/s40645-020-00402-7
La Paz	Bolivia	Shan et al., 2023	10.3390/rs15225311
Lagos	Nigeria	Tay et al., 2022	10.1038/s41893-022-00947-z
Lahore	Pakistan	Sajjad et al., 2023	10.3390/rs15225418
Lanzhou	China	Ao et al., 2024	10.1126/science.adl4366
Las Vegas	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Leon	Mexico	Chaussard et al., 2014	10.1016/j.rse.2013.08.038
Lima	Peru	Tay et al., 2022	10.1038/s41893-022-00947-z
Linyi	China	Ao et al., 2024	10.1126/science.adl4366
Lisbon	Portugal	Wu et al., 2022	10.1029/2022GL098477
Liuzhou	China	Ao et al., 2024	10.1126/science.adl4366
London	United Kingdom	Tay et al., 2022	10.1038/s41893-022-00947-z
Long Beach	United States	Ohenhen et al., 2024	10.1038/s41586-024-07038-3

Los Angeles	United States	Tay et al., 2022	10.1038/s41893-022-00947-z
Luanda	Angola	Tay et al., 2022	10.1038/s41893-022-00947-z
Lucknow	India	Raju et al., 2022	10.1080/10106049.2022.2060322
Ludhiana	India	Shankar et al., 2024	10.1016/j.qsa.2023.100151
Luoyang	China	Ao et al., 2024	10.1126/science.adl4366
Lyon	France	Thierry et al., 2005	NA*
Madurai	India	Zhu et al., 2026	10.1029/2025GL120539
Makkah	Saudi Arabia	Elhag et al., 2025	10.1016/j.kjs.2025.100419
Mandalay	Myanmar	Qin et al., 2025	10.3390/rs17233920
Manila	Philippines	Wu et al., 2022	10.1029/2022GL098477
Maoming	China	Wang et al., 2024	10.1016/j.rse.2023.113929
Maputo	Mozambique	Wu et al., 2022	10.1029/2022GL098477
Maracaibo	Venezuela	Wu et al., 2022	10.1029/2022GL098477
Mashhad	Iran	Haghighi & Motagh, 2024	10.1126/sciadv.adk3039
Medan	Indonesia	Chaussard et al., 2013	10.1016/j.rse.2012.10.015
Melbourne	Australia	Wu et al., 2022	10.1029/2022GL098477
Memphis	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Mexico City	Mexico	Chaussard et al., 2021	10.1029/2020JB020648
Miami	United States	Tay et al., 2022	10.1038/s41893-022-00947-z
Mogadishu	Somalia	Wu et al., 2022	10.1029/2022GL098477
Monrovia	Liberia	Wu et al., 2022	10.1029/2022GL098477
Montreal	Canada	Normand & Heggy, 2015	10.1109/TGRS.2015.2437368
Mumbai	India	Tay et al., 2022	10.1038/s41893-022-00947-z
Munich	Germany	Meyer et al., 2007	10.1109/URS.2007.371883
Nagoya	Japan	Tay et al., 2022	10.1038/s41893-022-00947-z
Nairobi	Kenya	Kirui et al., 2022	10.1007/s11069-022-05296-w
Nanchang	China	Ao et al., 2024	10.1126/science.adl4366
Nanjing	China	Tay et al., 2022	10.1038/s41893-022-00947-z

Nanning	China	Ao et al., 2024	10.1126/science.adl4366
Nanyang	China	Guo et al., 2023	10.3390/rs15112843
Naples	Italy	Wu et al., 2022	10.1029/2022GL098477
Nasik	India	Zhu et al., 2026	10.1029/2025GL120539
New Taipei	China	Hwang et al., 2025	10.3390/rs17203458
New York	United States	Tay et al., 2022	10.1038/s41893-022-00947-z
Ningbo	China	Ao et al., 2024	10.1126/science.adl4366
Norfolk	United States	Buzzanga et al., 2020	10.1029/2020GL090013
Oakland	United States	Ohenhen et al., 2024	10.1038/s41586-024-07038-3
Osaka	Japan	Tay et al., 2022	10.1038/s41893-022-00947-z
Palembang	Indonesia	Hamim & Usman, 2019	10.2991/icosite-19.2019.20
Panama City	Panama	Wu et al., 2022	10.1029/2022GL098477
Patna	India	Prakash et al., 2023	10.3390/rs15143687
Perth	Australia	Wu et al., 2022	10.1029/2022GL098477
Peshawar	Pakistan	Khan et al., 2023	10.1016/j.ejrs.2023.02.001
Philadelphia	United States	Tay et al., 2022	10.1038/s41893-022-00947-z
Phoenix	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Port Harcourt	Nigeria	Khalili et al., 2023	10.3390/rs15020529
Portland	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
Prague	Czech	Lazecký et al., 2020	10.3390/rs12182960
Providence	United States	Wu et al., 2022	10.1029/2022GL098477
Puebla	Mexico	Cigna et al., 2019	10.3390/rs11202341
Pune	India	Zhu et al., 2026	10.1029/2025GL120539
Qingdao	China	Ao et al., 2024	10.1126/science.adl4366
Qiqihar	China	Ao et al., 2024	10.1126/science.adl4366
Quanzhou	China	Wu et al., 2022	10.1029/2022GL098477
Quezon City	Philippines	Wu et al., 2022	10.1029/2022GL098477
Quito	Ecuador	Bedón et al., 2025	10.1016/j.jsames.2025.105588

Rajkot	India	Zhu et al., 2026	10.1029/2025GL120539
Rangoon	Myanmar	Horst et al., 2018	10.1016/j.rse.2018.08.004
Rawalpindi	Pakistan	Afzal et al., 2024	10.3390/rs16071194
Recife	Brazil	Souza et al., 2024	10.3390/rs16142592
Rio de Janeiro	Brazil	Tay et al., 2022	10.1038/s41893-022-00947-z
Rome	Italy	Sánchez et al., 2024	10.3390/land13122103
San Antonio	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
San Bernardino	United States	Wisely & Schmidt, 2010	10.1111/j.1365-246X.2010.04568.x
San Diego	United States	Ohenhen et al., 2024	10.1038/s41586-024-07038-3
San Francisco	United States	Ohenhen et al., 2024	10.1038/s41586-024-07038-3
San Jose	United States	Ohenhen et al., 2025	10.1038/s41586-024-07038-3
San Juan	Puerto Rico	Wu et al., 2022	10.1029/2022GL098477
San Salvador	El Salvador	Hernandez et al., 2020	10.1007/s11069-020-04150-1
Santa Cruz	Bolivia	Ohenhen et al., 2024	10.1038/s41586-024-07038-3
Santiago	Chile	Orellana et al., 2022	10.3390/rs14236115
Santo Domingo	The Dominican Republic	Wu et al., 2022	10.1029/2022GL098477
Seattle	United States	Wu et al., 2022	10.1029/2022GL098477
Semarang	Indonesia	Wu et al., 2022	10.1029/2022GL098477
Seoul	South Korea	Tay et al., 2022	10.1038/s41893-022-00947-z
Seville	Spain	Ruiz-Constán et al., 2017	10.1002/esp.4180
Shanghai	China	Ao et al., 2024	10.1126/science.adl4366
Shantou	China	Ao et al., 2024	10.1126/science.adl4366
Shenyang	China	Ao et al., 2024	10.1126/science.adl4366
Shenzhen	China	Ao et al., 2024	10.1126/science.adl4366
Shijiazhuang	China	Ao et al., 2024	10.1126/science.adl4366
Shiraz	Iran	Haghighi & Motagh, 2024	10.1126/sciadv.adk3039
Singapore	Singapore	Tay et al., 2022	10.1038/s41893-022-00947-z
Srinagar	India	Rather & Bukhari, 2025	10.1007/s12524-024-02030-w

St Petersburg	Russia	Wang et al., 2020	10.1016/j.jag.2020.102050
Surabaya	Indonesia	Wu et al., 2022	10.1029/2022GL098477
Surat	India	Tay et al., 2022	10.1038/s41893-022-00947-z
Suzhou	China	Ao et al., 2024	10.1126/science.adl4366
Sydney	Australia	Wu et al., 2022	10.1029/2022GL098477
Tabriz	Iran	Karimzadeh, 2016	10.1007/s40328-015-0118-4
Taichung	China	Ao et al., 2024	10.1126/science.adl4366
Taipei	China	Ao et al., 2024	10.1126/science.adl4366
Taiyuan	China	Ao et al., 2024	10.1126/science.adl4366
Tampa	United States	Wu et al., 2022	10.1029/2022GL098477
Tangshan	China	Ao et al., 2024	10.1126/science.adl4366
Tehran	Iran	Haghighi & Motagh, 2024	10.1126/sciadv.adk3039
Tel Aviv Yafo	Israel	Wu et al., 2022	10.1029/2022GL098477
Tianjin	China	Ao et al., 2024	10.1126/science.adl4366
Tijuana	Mexico	Fernández-Torres et al., 2024	10.1007/s11069-023-06259-5
Tokyo	Japan	Tay et al., 2022	10.1038/s41893-022-00947-z
Toluca	Mexico	Castellazzi et al., 2016	10.1016/j.jag.2015.12.002
Torreon	Mexico	Fernández-Torres et al., 2024	10.1007/s11069-023-06259-5
Tripoli	Libya	Wu et al., 2022	10.1029/2022GL098477
Tunis	Tunisia	Chaabani & Deffontaines, 2022	10.1080/19475705.2020.1788654
Ulsan	South Korea	Vadivel et al., 2022	10.7780/kjrs.2022.38.6.1.9
Urumqi	China	Ao et al., 2024	10.1126/science.adl4366
Vadodara	India	Zhu et al., 2026	10.1029/2025GL120539
Vancouver	Canada	Samsonov et al., 2014	10.1016/j.rse.2013.12.017
Vienna	Austria	Bedini, 2021	10.15157/IJITIS.2021.4.1.604-611

Virginia Beach	United States	Ohenhen et al., 2024	10.1038/s41586-024-07038-3
Vishakhapatnam	India	Zhu et al., 2026	10.1029/2025GL120539
Warangal	India	Zhu et al., 2026	10.1029/2025GL120539
Washington DC	United States	Wu et al., 2022	10.1029/2022GL098477
Weifang	China	Peng et al., 2020	10.3390/app10072294
Wenzhou	China	Ao et al., 2024	10.1126/science.adl4366
West Palm Beach	United States	Ohenhen et al., 2024	10.1093/pnasnexus/pgad426
Wuhan	China	Ao et al., 2024	10.1126/science.adl4366
Wuxi	China	Ao et al., 2024	10.1126/science.adl4366
Xiamen	China	Ao et al., 2024	10.1126/science.adl4366
Xi'an	China	Ao et al., 2024	10.1126/science.adl4366
Xianyang	China	Sun et al., 2024	10.1080/19475705.2024.2341181
Xining	China	Ao et al., 2024	10.1126/science.adl4366
Xuzhou	China	Ao et al., 2024	10.1126/science.adl4366
Yantai	China	Ao et al., 2024	10.1126/science.adl4366
Yokohama	Japan	Nishi et al., 2023	10.1080/10106049.2022.2159069
Yulin	China	Ao et al., 2024	10.1126/science.adl4366
Zhangzhou	China	Li et al., 2022	10.3390/rs14122930
Zhanjiang	China	Wang et al., 2024	10.1016/j.rse.2023.113929
Zhengzhou	China	Ao et al., 2024	10.1126/science.adl4366
Zhuhai	China	Wang et al., 2024	10.1016/j.rse.2023.113929
Zibo	China	Ao et al., 2024	10.1126/science.adl4366

* Thierry, P., et al. (2005). Survey of linear subsidence in an urban area using a 3D geological model and satellite Differential InSAR. Proceedings of the Géoline Conference, Lyon, France.

Table S4. InSAR uncertainties resulted from different choices of parameters during time-series processing as exemplified in Houston.

	Parameters			Valid-pixel coverage (%)	Number of interferograms	Average uncertainty (mm/yr)
	Temporal baseline (days)	Coherence threshold	Reference point (Lat °N, Lon °E)			
The velocity uncertainties when using different temporal baselines	24	0.35	(29.72391, -95.42658)	90.21	1404	1.62
	36	0.35	(29.72391, -95.42658)	92.14	2102	1.50
	48	0.35	(29.72391, -95.42658)	93.34	2767	1.34
	60	0.35	(29.72391, -95.42658)	94.42	3451	1.29
The velocity uncertainties when using different coherence thresholds	36	0.30	(29.72391, -95.42658)	95.60	2102	1.21
	36	0.35	(29.72391, -95.42658)	92.14	2102	1.50
	36	0.40	(29.72391, -95.42658)	88.53	2102	2.21
The velocity uncertainties when using different reference point candidates	36	0.35	(29.72391, -95.42658)	92.14	2102	1.50
	36	0.35	(29.74189, -95.30917)	92.14	2102	1.42
	36	0.35	(29.58168, -95.22377)	92.14	2102	1.53