



*JGR: Earth Surface*

Supporting Information for

**Variations in Subsidence along the Gulf of Mexico passive margin from Airborne-LiDAR data and Time Series InSAR in Louisiana**

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**Introduction**

Tables S1 and S2 have extra information about the LiDAR and SAR data not included in the main text.

**Table S1:** Characteristics for SAR data for ENVISAT and Sentinel-1 (ESA, 2021a, 2021b).

	<b>ENVISAT-ASAR</b>	<b>Sentinel-1</b>
<b>Incidence Angle</b>	23° (scene center)	37-39° (center sub-swath 2)
<b>Polarization</b>	Vertical transmit - Vertical receive (VV)	VV
<b>Pixel dimensions (azimuth x range)</b>	5x25 m	14.1x2.3 m
<b>Swath width (km)</b>	5-1150	250
<b>Average coverage along track (km)</b>	100	22.5-22.7
<b>Average coverage across track (km)</b>	56-100	2.7-3.5
<b>Mean Altitude (km)</b>	800	693
<b>Revisit time (days)</b>	35	12
<b>Images used (First and last lines correspond to the start and end of each file in the column list)</b>	ASA_IMS_1PNESA  20040418_161027_000000182026_00083_11159 20040523_161031_000000182027_00083_11660 20050227_161027_000000182035_00083_15668 20050403_161029_000000182036_00083_16169 20060212_161021_000000182045_00083_20678 20060319_161018_000000182046_00083_21179 20070930_161022_000000182062_00083_29195 20071104_161022_000000182063_00083_29696 20071209_161018_000000182064_00083_30197 20080113_161020_000000182065_00083_30698 20080217_161019_000000182066_00083_31199 20080427_161018_000000182068_00083_32201 20080601_161020_000000182069_00083_32702 20080706_161021_000000182070_00083_33203 20081123_161017_000000182074_00083_35207 20081228_161019_000000182075_00083_35708	S1A_IW_SLC__1SDV_  20170404T000154_20170404T000221_015987_01A5E6_E689 20170428T000155_20170428T000222_016337_01B092_6BCA 20170522T000156_20170522T000223_016687_01BB42_34B3 20170814T000201_20170814T000228_017912_01E0A9_3885 20170919T000202_20170919T000229_018437_01F0B0_A322 20171013T000203_20171013T000230_018787_01FB66_000F 20171106T000203_20171106T000230_019137_020620_3C80 20180105T000201_20180105T000228_020012_022178_B82A 20180210T000200_20180210T000227_020537_02322D_BEC0 20180306T000159_20180306T000226_020887_023D47_EAF0 20180610T000203_20180610T000230_022287_026979_A6AE 20180704T000205_20180704T000232_022637_0273E0_FF2F 20180902T000208_20180902T000235_023512_028F62_FE69 20181113T000209_20181113T000236_024562_02B230_AD1A 20190112T000207_20190112T000234_025437_02D177_FB1A 20190205T000206_20190205T000233_025787_02DE35_6C0A

	20090308_161018_000000182077_00083_36710 20100711_161010_000000182091_00083_43724  _0000.N1	20190313T000206_20190313T000233_026312_02F101_7AC1 20190325T000206_20190325T000233_026487_02F77B_E583 20190430T000208_20190430T000235_027012_030AA6_7891 20190524T000209_20190524T000236_027362_031615_8339 20190629T000210_20190629T000238_027887_032604_1B81 20190723T000212_20190723T000239_028237_033099_4B20 20190828T000214_20190828T000241_028762_0341E0_CA2A 20190921T000215_20190921T000242_029112_034DFB_8DE7 20191027T000216_20191027T000243_029637_03600E_DBC0 20191120T000215_20191120T000242_029987_036C4D_72A0 20191226T000214_20191226T000241_030512_037E76_ODD0 20200131T000213_20200131T000240_031037_0390C2_751B 20200224T000212_20200224T000239_031387_039CE2_AD2E 20200331T000213_20200331T000240_031912_03AF2A_5844 20200424T000213_20200424T000240_032262_03BB79_34AE 20200530T000215_20200530T000243_032787_03CC40_3FB6 20200729T000219_20200729T000246_033662_03E6C3_D4C6  .SAFE
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**Table S2:** Characteristics for LiDAR point clouds from 1999 and 2018.

	<b>1999</b>	<b>2018</b>
<b>Instrument</b>	Leica ALS40	Leica ALS70 HP
<b>Altitude (m)</b>	2,438	1,152
<b>Point spacing (m)</b>	4	0.33
<b>Pulse rate (kHz)</b>	15	450
<b>Vertical Accuracy (cm) -RMSE</b>	15	3.6