



OVERVIEW DESCRIPTION

This digital surface model (DSM) data set is a mosaic of 2 m resolutions stereogrammetric DSMs acquired prior to the July 2019 Ridgecrest, California earthquake sequence. The DSMs were constructed using the open-source software package SETSM (<https://mjremotesensing.wordpress.com/setsm/> (Noh and Howat, 2015)) produced using DigitalGlobe Inc. base imagery (©DigitalGlobe 2018).

73 DSM strips were vertically registered to ICESat-1 observations during the mosaicking process (see metadata file for RMS fits to ICESat-1). The base images are ~0.5 m resolution in-track stereo panchromatic imagery from the Worldview-01 and -02 and GeoEye-01 satellites that remain the property of DigitalGlobe Inc.

HORIZONTAL COORDINATE SYSTEM

UTM Zone 11 North, WGS84 Meters. EPSG32611

2m spatial resolution

VERTICAL COORDINATE SYSTEM

WGS84 Ellipsoidal Heights (Meters)

DATASET CITATION LANGUAGE

Willis, MJ; Barnhart, WD; Cassotto, R; Klassen, J; Corcoran, J; Host, T; Huberty, B., Pelletier, K., Knight, J.F., *CaliDEM: Ridgecrest, CA Region 2m Digital Surface Elevation Model*. Funding by NSF and USGS. Data collection by DigitalGlobe. Distributed by OpenTopography. <https://doi.org/10.5069/G998854C>

This is a pre-release of a larger data set of California (CaliDEM) that will be fully submitted to OpenTopography later.

DATASET KEYWORDS

Southern California, Eastern California Shear Zone, Ridgecrest Earthquake

PROJECT ROLES

FUNDER(s): NSF/USGS Southern California Earthquake Center (Award IDs 16147 and 17086)

COLLECTOR(s): DigitalGlobe

PROCESSING Groups:

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Brian Huberty, US Department of Fish and Wildlife.

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ARCTICDEM MOSAIC TILE METADATA

Creation Date: 02-Jun-2019 09:04:46

Version: 3.0

Mosaicking Alignment Statistics (meters) in rank order

strip, rmse, dz, dx, dy

WV01_20080217_1020010001E87200_1020010001678E00_seg1_2m 0.00 0.0000 0.0000 0.0000

WV01_20111001_10200100157C6500_1020010016173700_seg1_2m 0.20 3.6905 1.1896 -1.5082

WV01_20101026_102001000EE2BD00_1020010010192200_seg1_2m 0.20 3.1545 3.1462 1.8661

WV03_20161021_1040010021D38E00_10400100231E5E00_seg1_2m 0.23 -0.3236 0.7059 0.9555

WV01_20120128_1020010018422B00_1020010017733900_seg1_2m 0.20 0.3627 -0.9143 -1.0838

GE01_20100920_10504100022FAC00_10504100022B1400_seg1_2m 0.20 -4.0813 0.2239 -1.0971
WV03_20140925_1040010002D78800_1040010002D49A00_seg1_2m 0.18 0.8634 0.1337 -0.4972
WV03_20140919_104001000213BB00_10400100023FA500_seg1_2m 0.19 -1.0477 -0.3294 -0.2977
WV03_20161015_10400100245D2700_1040010024D47D00_seg1_2m 0.20 0.5355 5.7416 -0.4789
GE01_20100511_1050410001C44400_1050410001C10A00_seg1_2m 0.24 -3.6229 1.4069 -0.6159
WV03_20141009_104001000293FA00_10400100028D6D00_seg1_2m 0.26 -1.1047 8.4704 -1.6092
WV02_20100308_1030010004544400_10300100047CA400_seg1_2m 0.26 2.4015 1.3421 -2.8023
WV02_20100316_1030010004CB7500_1030010004347300_seg1_2m 0.25 1.9716 -1.7010 -3.3803
WV01_20091025_102001000A95EC00_102001000ADC8D00_seg1_2m 0.24 2.0724 0.7195 -0.2677
WV02_20100825_1030010006384200_10300100066CB200_seg1_2m 0.26 1.0520 -0.7527 -0.7392
WV01_20091219_102001000A087300_102001000B8E3F00_seg1_2m 0.28 0.5064 -1.6696 1.7665
WV02_20100620_10300100051F4B00_1030010006460B00_seg1_2m 0.28 0.0982 0.7598 -1.7067
GE01_20131210_105041000F4D2B00_105041000F4D2E00_seg1_2m 0.26 -2.9029 1.2979 -1.0635
GE01_20140117_1050410004BFFC00_1050410004BBCA00_seg1_2m 0.23 -9.2330 -0.3004 1.7769
GE01_20140117_105041000F727600_105041000F727800_seg1_2m 0.21 -9.2226 -0.2574 1.8634
WV03_20141128_104001000500C500_104001000545D900_seg1_2m 0.30 -1.2042 -0.1643 2.8923
WV01_20100314_102001000B007600_102001000C73D800_seg1_2m 0.33 0.1220 -1.0145 -1.6386
WV01_20090805_10200100080F8200_10200100096ADE00_seg1_2m 0.35 -3.4728 -4.0481 -1.7014
WV02_20100131_10300100041A9D00_1030010003867300_seg1_2m 0.34 -1.0121 -4.1705 3.4617
WV01_20100620_102001000E027000_102001000CB09000_seg1_2m 0.34 3.8638 -2.5198 3.4914
WV01_20090805_102001000778F900_1020010008976500_seg1_2m 0.33 -4.0701 -2.5797 0.4286
WV01_20080310_102001000273ED00_10200100016D8D00_seg1_2m 0.35 -1.4837 0.1124 -0.1973
WV01_20101026_102001000FB99700_1020010010901100_seg1_2m 0.42 1.2149 3.5562 0.4700
GE01_20100702_1050410001B35D00_1050410001B29300_seg1_2m 0.38 -0.3057 -0.0558 -0.2418
WV01_20080114_1020010001835D00_1020010001BA8400_seg1_2m 0.43 2.0975 1.2651 -1.9419
WV01_20100426_102001000D91CC00_102001000DE1C500_seg1_2m 0.42 -4.9928 1.0989 -0.5579
WV01_20120210_102001001972CE00_1020010017EB5300_seg1_2m 0.44 -0.7114 -0.2704 0.5717

WV01_20080109_1020010001C50C00_1020010001BAE100_seg1_2m 0.46 -2.1967 0.0338 0.0507
WV01_20100217_102001000ADE5B00_102001000B449B00_seg1_2m 0.48 3.1988 0.3057 0.9548
WV01_20091025_102001000A2F3C00_102001000AC48E00_seg1_2m 0.47 0.6250 1.6230 1.2383
WV01_20091102_102001000AC65A00_10200100095CFA00_seg1_2m 0.44 1.0074 3.4569 1.2332
WV02_20140308_103001002E719900_103001002E05EF00_seg1_2m 0.43 3.1718 3.7988 -4.5070
WV01_20080726_10200100031E4900_1020010003BA4400_seg1_2m 0.50 2.9516 0.0021 0.0959
WV01_20080314_1020010002602700_1020010002C7FE00_seg1_2m 0.47 -1.3943 1.9569 -1.3490
GE01_20100713_1050410001BA5300_1050410001AFE900_seg1_2m 0.51 1.0720 2.4267 -1.0670
WV01_20080722_1020010003CB8E00_1020010002DAAE00_seg1_2m 0.53 -0.9770 -0.2035 -0.1465
WV01_20080427_102001000246E500_1020010002BC2000_seg1_2m 0.47 -2.1046 2.3434 3.2047
WV01_20090818_1020010009D8BA00_102001000AB56500_seg1_2m 0.83 1.5216 -2.1142 1.7663
WV03_20141128_10400100044CA800_1040010004AAB700_seg1_2m 0.62 -1.6181 -0.2381 0.2221
WV01_20120201_1020010017E97600_10200100182CCF00_seg1_2m 0.54 -0.9950 -1.9909 0.2869
GE01_20120604_1050410000C36800_1050410000C4F900_seg1_2m 0.37 -4.6912 2.7800 0.5969
WV03_20141123_1040010004281F00_1040010004833700_seg1_2m 0.41 -2.5430 1.4908 -1.2360
WV02_20100814_10300100067A3900_1030010006C36F00_seg1_2m 0.48 3.1549 -1.0407 -0.5825
WV01_20090921_1020010009612500_102001000A339B00_seg1_2m 0.90 0.4425 -0.2320 1.1121
WV02_20100817_10300100062DED00_1030010006CFCA00_seg1_2m 0.60 -1.7031 -2.1886 0.7322
WV01_20080816_1020010003CDDC00_102001000395E400_seg1_2m 0.65 1.9509 -1.2157 -2.6410
WV03_20141224_1040010006946F00_10400100051E4B00_seg5_2m 0.50 2.2514 0.3499 2.1338
GE01_20100917_1050410002276700_1050410002233B00_seg1_2m 0.57 -3.0902 -0.4114 -1.7858
GE01_20120604_1050410000CE7000_1050410000CE4A00_seg1_2m 0.63 -1.9777 2.1550 0.6564
WV01_20080730_1020010003D28500_1020010003C5A400_seg1_2m 0.63 -2.0520 0.2963 -1.6995
WV02_20100902_103001000609C500_1030010006201D00_seg1_2m 0.54 1.9804 -2.7884 -0.1267
WV01_20080617_1020010003E42100_10200100022CD100_seg1_2m 0.52 -3.1630 2.2326 0.2140
WV01_20120107_10200100186CEF00_102001001743E100_seg1_2m 0.59 2.0893 0.2235 0.1441
WV02_20100908_103001000614C200_10300100072F7F00_seg1_2m 0.60 0.3103 1.5554 -0.7762

WV01_20080613_1020010002779100_1020010003EB6E00_seg1_2m 0.58 -7.1895 -1.3776 2.1753
WV01_20080812_10200100030D9400_10200100038A7E00_seg1_2m 0.72 2.9227 -0.3685 -1.2119
WV01_20080808_102001000317AC00_1020010003C3DD00_seg1_2m 0.84 -0.0062 -1.0439 -3.1659
WV01_20071214_10200100016E0B00_1020010001792F00_seg1_2m 0.68 -3.6245 6.1073 -2.3915
GE01_20131025_105041000F1C3C00_105041000F1C3B00_seg1_2m 0.78 -1.1018 2.5956 -0.1524
WV03_20150106_104001000692A800_1040010006728300_seg1_2m 0.96 -1.2118 3.2400 -1.2105
WV01_20080306_1020010001766900_102001000264C200_seg1_2m 0.76 -1.2591 1.9477 -0.6194
WV01_20080803_1020010003CB2C00_1020010003A82B00_seg1_2m 0.84 3.1754 -0.1685 -2.0019
WV01_20111229_102001001788FD00_102001001897DE00_seg1_2m 0.92 -0.2246 0.5752 -1.2226
WV01_20080803_1020010003CB2C00_1020010003A82B00_seg2_2m 1.60 1.9788 0.0316 -0.9821
WV01_20080704_102001000294C200_1020010003045700_seg1_2m 2.17 -1.0507 -0.0339 -0.2107
WV01_20080621_1020010003013600_1020010002673000_seg1_2m 1.89 -1.0592 -1.4141 -0.7434
WV01_20080626_1020010003DE3900_1020010003803D00_seg1_2m 2.17 -5.6341 -2.1408 1.5626
WV01_20080609_1020010003412E00_1020010002443B00_seg1_2m 2.06 -5.3903 -0.8869 3.0942