United Nations Institute for Training and Research

DOMINICA

Tropical Cyclone

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UNOSAT



Buildings Damage Assessment & Related Density in Dominica- Analysis By Parish

This map illustrates potentially damaged structures and buildings and related density in Dominica summarized by Parishes as detected by Pléiades and WorldView-2/3 satellite imagery after landfall of the Tropical Cyclone Maria-17 on 19 September 2017. The UNITAR-UNOSAT analysis combined with Copernicus analysis identified about 28,000 potentially damaged structures across the Dominica within the cloud free areas. Taking into account the pre-building footprints provided by Humanitarian OpenStreetMap, this represents about 76 % of the total number of structures/buildings. Please note that some areas could not be analyzed due to the cloud cover. The most affected parishes in terms of percentage of damage are St. Andrew and St. David, both located in the eastern part of the country with an estimate of more than 85% of damage. Total and final estimates by parishes are summarized in the table below. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR-UNOSAT.

Parish	Pop.	OSM buildings	OSM buildings in cloud free areas	Affected buildings	%
Saint Andrew	9,465	6,210	6,164	5,505	89%
Saint David	6,891	3,967	3,910	3,357	86%
Saint George	20,497	8,788	8,757	5,691	65%
Saint John	6,275	3,398	3,389	2,246	66%
Saint Joseph	5,656	4,010	3,936	3,269	83%
Saint Luke	1,647	820	816	590	72%
Saint Mark	1,791	1,043	957	597	62%
Saint Patrick	8,638	4,768	4,132	3,016	73%
Saint Paul	9,657	4,570	4,353	3,218	74%
Saint Peter	1,602	960	954	820	86%
Total	**72,119**	**38,534**	**37,368**	**28,309**	**76%**

Legend

- Locality
- Capital
- Airport
- Primary road
- Cyclone track
- Parish boundary
- Cloud obstruction
- High damage density
- Low damage density

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Map Scale for A3: 1:175,000

0 2 4 6 8 km

Analysis conducted with ArcGIS v10.4.1

Coordinate System: WGS 1984 UTM Zone 20N
Projection: Transverse Mercator
Datum: WGS 1984
Units: Meter

61°30'0"W 61°25'0"W 61°20'0"W 61°15'0"W
15°40'0"N 15°35'0"N 15°30'0"N 15°25'0"N 15°20'0"N 15°15'0"N 15°10'0"N

Saint John : 2246 damaged buildings (66 %)
Saint Andrew : 5505 damaged buildings (89 %)
Saint Peter : 820 damaged buildings (86 %)
Saint Joseph : 3269 damaged buildings (83 %)
Saint Paul : 3218 damaged buildings (74 %)
Saint George : 5691 damaged buildings (65 %)
Saint Luke : 590 damaged buildings (72 %)
Saint Mark : 597 damaged buildings (62 %)
Saint David : 3357 damaged buildings (86 %)
Saint Patrick : 3016 damaged buildings (73 %)

Connor Estate, Penville, Aouya, Malaise, Thibaud, S'Olicher, Saint John, Portsmouth, Ti Branches, Walker's Rest, Marigot, Saint Andrew, Saut d'Eau, Lagoon Estate, Saint Peter, Notice, Debatre, Mariejean, Tamarin Couché, En Haut Jean, Gros Morne, Jimico, Saint Joseph, Anthony Gutter, Coffee, Bois Diable Ridge, Sineku, California Estate, Raimondstone, Saint David, Bailey, Caye En Boucs, Dleau Manioc, Brantridge Estate, Freeport, Rosalie Estate, Saint Paul, Mahaut, Penton, Morne Boyer, Belmont Estate, Antrim Valley, Greenfield Estate, Wotton Waven, Long Ditton Estate, La Gengette Estate, Roseau, Saint George, Morne Bruce, Saint Patrick, New Florida (Parrot) Estate, Mardrel Estate, Saint Luke, Bagatelle Old Mill, Berekua, Saint Mark, Pte De Fous, Scotts Head

ATLANTIC OCEAN

CARIBBEAN SEA

Satellite Data (Post): Pléiades
Imagery Dates: 20,21 & 23 September 2017
Imagery Dates: 5, 6, 7 & 11 October 2017
Resolution: 50 cm
Copyright: CNES 2017, Distribution Airbus DS
Source: Airbus DS
Satellite Data (Post): WorldView-2/3
Imagery Dates: 22 & 23 September 2017
Imagery Dates: 01,06 & 07 October 2017
Resolution: 50 cm
Copyright: 2017 DigitalGlobe
Satellite Data (Pre): Kompsat-3
Imagery Date: 05 May 2015
Resolution: 70 cm
Copyright: KARI
Source: KARI
Baseline Data: Humanitarian OpenStreet Maps (21/09/2017)
Analysis: UNITAR - UNOSAT / Copernicus
Production : UNITAR - UNOSAT

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