

EMSR847 - AOI27
Tropical storm Melissa in the Caribbean
SANTA CRUZ

Situation as of 02/11/2025 15:45 UTC
Grading MONIT0101 - Overview map 01



Flooded area
462.8 ha
 Flood trace
89.8 ha
 Potentially affected population
~ 2,200

Affected Built-up and Transportations
 Road
74.0 km
 Built-Up
2,888 No.

- | | |
|-------------------------------|----------------------------|
| Crisis Information | General Information |
| Flooded Area | Area of Interest |
| Flood trace | Detail map |
| Built Up Grading | Not Analysed |
| Destroyed | Placenames |
| Damaged | Placename |
| Possibly damaged | Hydrography |
| Transportation Grading | Lake, River |
| Road, Damaged | |
| Road, Possibly damaged | |
| Main road, No visible damage | |
| Local road, No visible damage | |
| Track, No visible damage | |

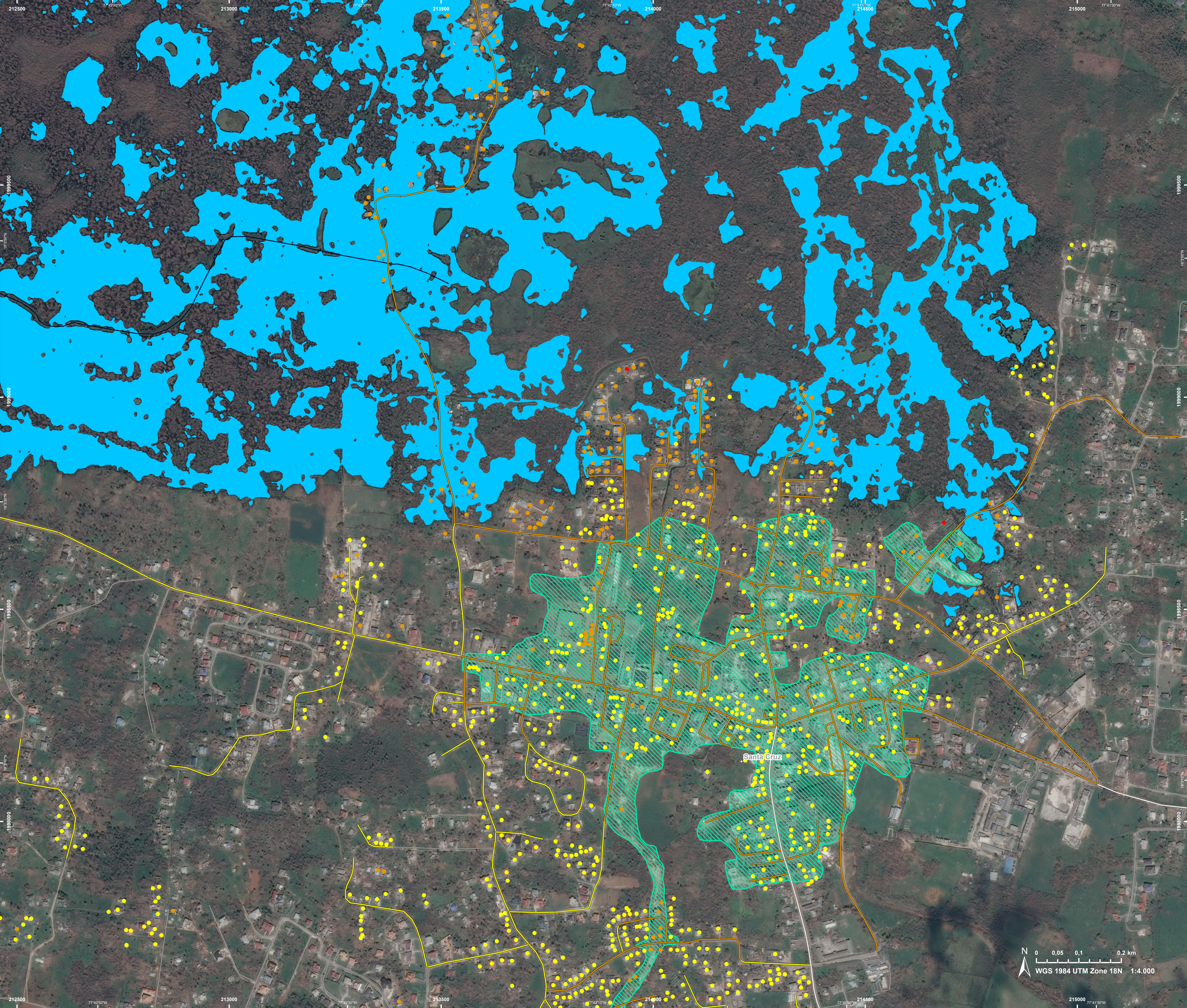
On 25 October 2025 at 20:00, Tropical Storm Melissa is forecast to affect Jamaica and the southern peninsula of Haiti. The event is expected to cause damage to housing, infrastructure, and transport networks due to heavy rainfall, strong winds, flooding, and landslides. Hurricane conditions are forecast for Jamaica during the weekend and subsequently for the southern peninsula of Haiti and Cuba. Copernicus EMS Rapid Mapping is requested to provide flood extent and damage assessment emergency mapping.

Data sources and analysis: Pre-event image: GEOEYE1, (acquired on 08/07/2024 at 15:45 UTC, resolution 0.4 m).
Post-event image: Pléiades-1A/B © CNES (2025), distributed by Airbus DS (acquired on 02/11/2025 at 15:45 UTC, resolution 0.5 m).
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The thematic layer has been derived from post-event satellite image by means of visual interpretation.

Map produced by e-GEOS released by e-GEOS on the 03/11/2025.

Details on this activation and service conditions available through the QR code or at the link: <https://mapping.emergency.copernicus.eu/activations/EMSR847>



EMSR847 - AOI27
Tropical storm Melissa in the Caribbean
SANTA CRUZ

Situation as of 02/11/2025 15:45 UTC
Grading MONIT0101 - Detail map 02



- Crisis Information**

 - Flooded Area
 - Flood trace

Built Up Grading

 - Destroyed
 - Damaged
 - Possibly damaged
- Transportation Grading**

 - Road, Damaged
 - Road, Possibly damaged
 - Main road, No visible damage
 - Local road, No visible damage
 - Track, No visible damage

General Information

 - Area of Interest

Placenames

 - Placename

On 25 October 2025 at 20:00, Tropical Storm Melissa is forecast to affect Jamaica and the southern peninsula of Haiti. The event is expected to cause damage to housing, infrastructure, and transport networks due to heavy rainfall, strong winds, flooding, and landslides. Hurricane conditions are forecast for Jamaica during the weekend and subsequently for the southern peninsula of Haiti and Cuba. Copernicus EMS Rapid Mapping is requested to provide flood extent and damage assessment emergency mapping.

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Consequences within the AOI

			LATEST IMPACT	
			Unit of measurement	EO-based observation*
Crisis information	Flood trace		ha	89,8
	Flooded area		ha	462,8
	Maximum of all extents**		ha	552,6

				Destroyed	Damaged	Possibly damaged***	Total affected****	Total in AOI
Estimated population		Inhabitants	No.				~ 2.200	~ 28.000
Assets	Built-up	Residential Buildings	No.	9	591	2.164	2.764	3.181
		Office buildings	No.	0	0	1	1	1
		Institutional	No.	0	0	0	0	1
		Police station	No.	0	0	1	1	1
		Fire station	No.	0	0	1	1	1
		Wholesale and retail trade buildings	No.	0	3	78	81	85
		Industrial buildings	No.	0	0	0	0	1
		School, university and research buildings	No.	0	0	0	0	3
		Hospital or institutional care buildings	No.	0	5	0	5	5
		Other non-residential buildings	No.	4	18	9	31	31
		Buildings used as places of worship and for religious activities	No.	0	0	2	2	2
		Hotel buildings	No.	0	0	1	1	1
		Communication buildings, stations, terminals and associated buildings	No.	0	0	1	1	1
		Unclassified	No.	0	0	0	0	10.458
	Transportation	Primary Road	km	0	3,1	3,4	6,5	11,5
		Secondary Road	km	0	2,6	0,3	2,9	30,5
		Local Road	km	0	18,5	22,9	41,3	207,0
		Cart Track	km	0	20,7	2,5	23,2	79,6
	Facilities	Sport and recreation constructions	ha	0	0	0	0	0,4
	Land use	Forests	ha				469,1	11.335,1
		Other	ha				63,1	739,1
		Inland wetlands	ha				15,7	50,5
		Shrub and/or herbaceous vegetation association	ha				4,2	252,2
		Heterogeneous agricultural areas	ha				0,5	68,5
		Open spaces with little or no vegetation	ha				0	1,4

* Corresponds to the water surface observed in the most recent satellite imagery, excluding permanent water.
** Corresponds to the geographic union (and NOT the sum) of all Crisis Information layers.
*** It is intersected with the population and asset datasets to estimate the impacts.
**** Sum of all damage classes

Disclaimer:
Full disclaimer and other helpful information available in the online manual:
<https://mapping.emergency.copernicus.eu/about/rapid-mapping-manual/>
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Data Access:
All data displayed on the map(s), as well as Land Use - Land Cover layer(s), are available in the Crisis Information Package and the Base Layer Package (for reference data).
The table above is available in editable format in the Crisis Information Package.
All products and data are also available for download on the portal.

Estimated Population:
Estimated population is based on Copernicus Global Human Settlement Layer (GHSL) dataset.
Additional population datasets and analysis are available in the summary table.

Data Sources:
Base Vector Layers: OpenStreetMap © OpenStreetMap contributors (2025); Wikimapia.org; GeoNames 2015;
Global Administrative Areas (2022), refined by the producer, Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).

Inset Maps: Natural Earth 2023; HydroLAKES 2016 by HydroSHEDS;
© EuroGeographics, © TurkStat. Source: European Commission – Eurostat/GISCO, 2021.

Digital Elevation Model:
FABDEM (ForestAndBuildingsremovedCopernicusDEM) removes building and tree height biases from the Copernicus GLO 30
Digital Elevation Model (DEM) (Airbus, 2020).

