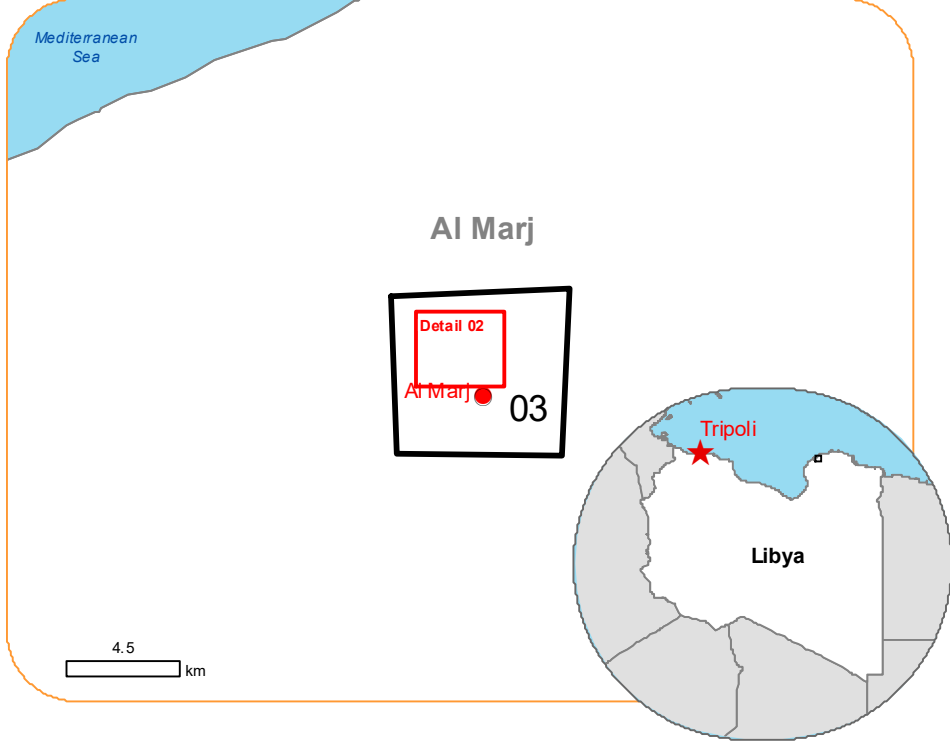




Situation as of 13/09/2023 09:15 UTC
Grading - Overview map 01



Flooded area 46.3 ha
Flood trace 461.0 ha

Potentially affected population
~ 1000

Affected Built-up and Transportations

Built-Up
99 No.

Road
5.7 km

Railway
0.3 km

Crisis Information

- Flooded Area
- Flood trace

Built-Up Grading

- Unclassified Building, Possibly damaged
- Unclassified Building, Damaged
- Residential Building, Possibly damaged
- Residential Building, Damaged

Transportation Grading

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

General Information

- Area of Interest
- Detail map

Placenames

- Placename

Hydrography

- Lake

Event: On the 10 September 2023, Mediterranean storm Daniel caused devastating floods in Libya, sweeping away entire neighborhoods in multiple coastal towns in the North East of the country. It also caused the destruction of two dams upstream of Derna town, triggering a wave of flash floods that hit the heart of the city, with massive destruction to the buildings and all the bridges on Derna valley. As many as 2,000 people were feared dead, according to one of the country's leaders. Copernicus EMS Rapid Mapping is requested to provide flood delineation and damage assessment emergency mapping.

Data sources and analysis: Pre-event image: ESRI World Imagery © DigitalGlobe (acquired on 07/02/2022 resolution 0.5 m).
Post-event image: Pléiades-1A/B © CNES (2023), distributed by Airbus DS (acquired on 13/09/2023 at 09:15 UTC, resolution 0.5 m). This image is used as background image.
All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.
Base vector layers: OpenStreetMap © OpenStreetMap contributors (current year), Wikimapia.org, GeoNames 2015.
Global Administrative Areas (2012), refined by the producer. Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

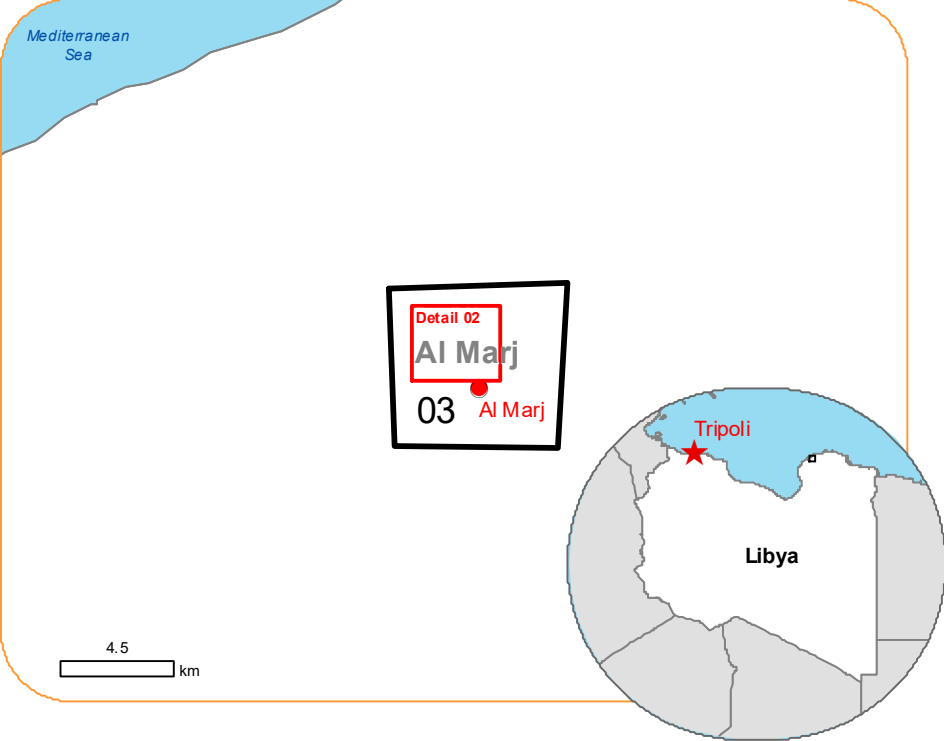
Population data: GHS Population Grid © European Commission, 2023
https://ghsl.jrc.ec.europa.eu/ghs_pop2023.php

The thematic layer has been derived from post-event satellite image by means of visual interpretation.

Map produced by e-GEOS released by SERTIT on the 15/09/2023.

EMSR696 - AOI03
Flood in Libya
ALMARJ

Situation as of 13/09/2023 09:15 UTC
Grading - Detail map 02



Flooded area 26.2 ha
(57% of total in AOI)
Flood trace 101.2 ha
(22% of total in AOI)

Potentially affected population
~ 700
(70% of total affected)

Affected Built-up and Transportations

Built-Up
74 No.
(76% of total affected)

Road
2.8 km
(52% of total affected)

Crisis Information

- Flooded Area
- Flood trace

Built-Up Grading

- Unclassified Building, Possibly damaged
- Unclassified Building, Damaged
- Residential Building, Possibly damaged
- Residential Building, Damaged

Transportation Grading

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

General Information

- Area of Interest

Hydrography

- Lake

Event: On the 10 September 2023, Mediterranean storm Daniel caused devastating floods in Libya, sweeping away entire neighborhoods in multiple coastal towns in the North East of the country. It also caused the destruction of two dams upstream of Derna town, triggering a wave of flash floods that hit the heart of the city, with massive destruction to the buildings and all the bridges on Derna valley. As many as 2,000 people were feared dead, according to one of the country's leaders. Copernicus EMS Rapid Mapping is requested to provide flood delineation and damage assessment emergency mapping.

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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 SERTIT on the 15/09/2023.

Consequences within the AOI						
	Unit of measurement	Destroyed	Damaged	Possibly damaged*	Total affected**	Total in AOI
Flooded area	ha					46.3
Flood trace	ha					461.0
Estimated population	Number of inhabitants				~ 1,000	~ 100,000
Built-up	Residential Buildings	ha	0.0	0.0	0.0	1,987.3
	Office buildings	ha	0.0	0.0	0.0	8.9
	Industrial buildings	ha	0.0	0.0	0.0	9.6
	Public entertainment buildings	ha			0.0	1
	School, university and research buildings	ha	0.0	0.0	0.0	27.6
	Hospital or institutional care buildings	ha	0.0	0.0	0.0	17.1
	Buildings used as places of worship and for religious activities	ha			0.0	2
	Unclassified	ha			0.0	559
	Residential Buildings	No.	0	18	60	78
	Public entertainment buildings	No.	0	0	0	1
	School, university and research buildings	No.	0	0	0	2
	Hospital or institutional care buildings	No.	0	0	0	3
	Buildings used as places of worship and for religious activities	No.	0	0	0	2
	Unclassified	No.	0	15	6	21
Transportation	Highways	km	0.0	0.0	0.0	17.6
	Primary Road	km	0.0	0.0	0.0	19.0
	Local Road	km	0.0	2.2	2.9	304.8
	Cart Track	km	0.0	0.1	0.5	57.2
	Long-distance railways	km	0.0	0.0	0.3	0.5
Facilities	Sport and recreation constructions	ha	0.0	0.0	0.0	19.2
	Long-distance pipelines, communication and electricity lines	km	0.0	0.0	0.0	37.2
Land use	Heterogeneous agricultural areas	ha			469.2	2,864.0
	Other	ha			32.4	1,420.6
	Shrub and/or herbaceous vegetation association	ha			4.6	86.1
	Open spaces with little or no vegetation	ha			1.1	16.4
	Forests	ha			0.0	4.1
* Presence of damage proxies and proximity with destroyed/damaged asset ** Sum of all damage classes						

Disclaimer:

Full disclaimer and other helpful information available in the online manual:

<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>

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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.

Access to the portal



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