



GLIDE number: N/A
Int. Charter call ID: N/A

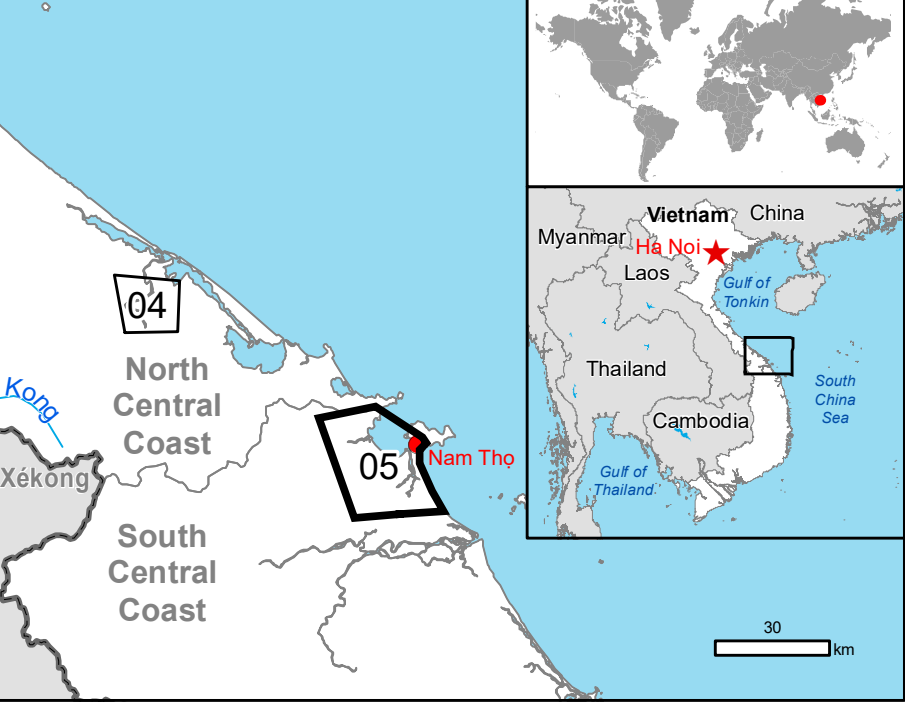
Activation ID: EMSR464
Product N.: 05DANANG, v1

Da Nang - VIETNAM

Tropical cyclone Noul in Vietnam

Situation as of 18/09/2020

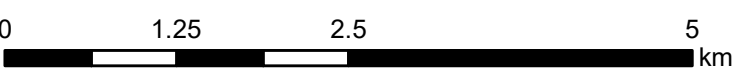
Delineation - Overview map 01



Cartographic Information

1:55000

Full color A1, 200 dpi resolution



Grid: WGS 1984 UTM Zone 48N map coordinate system

Tick marks: WGS 84 geographical coordinate system



Legend

Crisis Information	Hydrography	Transportation
■ Flooded Area (18/09/2020 22:46 UTC)	— Coastline	— Primary Road
— Area of Interest	— River	— Secondary Road
— Administrative boundaries	— Stream	— Local Road
— International Boundary	— Lake	— Cart Track
— Region	— Open Water	— Long-distance railway
— Province	— Reservoir	— Airfield runway
— Municipality	— River	— Land Use - Land Cover
— Placenames	— Stream	Features available in the vector package
— Built-Up Area		
■ Residential		

Consequences within the AOI		Unit of measurement	Affected	Total in AOI
Flooded area		km ²	336.3	
Estimated population		Number of inhabitants	1097161	
Settlements	Residential Buildings	No.	0	1467
Transportation	Artificial runways	km	0.0	15.6
	Primary Road	km	0.0	303.7
	Secondary Road	km	0.2	156.1
	Local Road	km	0.0	965.9
	Cart Track	km	0.0	155.6
	Long-distance railways	km	0.0	45.4
Land use	Heterogeneous agricultural areas	ha	303.6	24162.0
	Forests	ha	12.9	14910.9
	Shrub and/or herbaceous vegetation association	ha	6.9	5199.9
	Inland wetlands	ha	0.0	21.3
	Other	ha	15.6	19166.0

Map Information

Tropical Cyclone NOUL is forecasted to cause heavy rainfall in the Central region of Vietnam. Local weather forecasts expect a high chance for strong precipitation resulting in localised urban floods in Ha Tinh, Dong Ha, Dong Hoi, Hue and Da Nang (Central Vietnam) at the mid of September with a maximum water height at 12:00 (UTC) 18/9/2020. The activation aims at detecting the spatial extent of the flood as currently no established in situ methods are available for this purpose.

The present map shows the flood delineation in the area of Da Nang (Vietnam). The thematic layer has been derived from post-event satellite image using a semi-automatic approach. The estimated geometric accuracy (RMSE) is 2.5 m or better, from native positional accuracy of the background satellite image.

Relevant date records (UTC)

Event	18/09/2020 12:00	Situation as of	18/09/2020 22:46
Activation	16/09/2020 15:32	Map production	19/09/2020

Data sources

Pre-event image: ESRI World Imagery © DigitalGlobe (acquired on 05/09/2018, GSD 2.5 m, approx. 5% cloud coverage in AoI).
Post-event image: COSMO-SkyMed © ASI (2020), distributed by e-GEOS S.p.A. (acquired on 18/09/2020 at 22:46 UTC, GSD 5 m), provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors, Wikimapia.org, GeoNames 2015, Globe Land 30 (2010), Global Administrative Areas (2012), refined by the producer.
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2013.

Population data: GHS Population Grid © European Commission, 2019
https://ghsl.jrc.ec.europa.eu/ghs_pop2019.php
Digital Elevation Model: SRTM (90 m) (NASA/USGS)

Disclaimer

Products elaborated in this Copernicus EMS Rapid Mapping activity are realized to the best of our ability, within a very short time frame, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original sources. No liability concerning the contents or the use thereof is assumed by the producer and by the European Union.
Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

Delivery formats are Layered Geospatial PDF, GeoJPEG and vector (ESRI shapefiles, Google Earth KML, GeoJSON).

Map produced by GAF AG released by e-GEOS (ODO).

For the latest version of this map and related products visit
https://emergency.copernicus.eu/EMSR464

Jrc-ems-rapidmapping@ec.europa.eu
© European Union
For full Copyright notice visit https://emergency.copernicus.eu/mapping/ems/cite-copernicus-ems-mapping-portal

