



UNOSAT

Bahamas–Tropical Cyclone Dorian-19

1 September 2019

Population Exposure Analysis

01 September 2019

Geneva, Switzerland

UNOSAT Contact:

Email: unosat@unitar.org

T: +41 22 767 4020 (UNOSAT Operations)

24/7 hotline: +41 76 411 4998

Postal Address:

UNITAR – UNOSAT, IEH
Chemin des Anémones 11,
CH-1219, Genève, Suisse



Overview

Dorian-19 is a category 4 tropical cyclone moving over the Caribbean Sea, with winds reaching 250 km/h. Tropical cyclone Dorian will remain powerful through Monday night, the 02nd of September 2019, when it is predicted to hit the islands of Grand Abaco and Great Bahama.

Based on data of the observed and predicted tropical cyclone path, wind speeds, and population data (from WorldPop) acquired on the 1st of September 2019, UNITAR-UNOSAT conducted a population exposure analysis for Bahamas where about 72,000 people will be potentially exposed to sustained winds with more than 120 km/h.

Population exposure estimates are based on cyclone track (JRC) and WorldPop data

Population Exposure in Bahamas



390,000

Total population of Bahamas

72,000

Total population living in **120 km/h** wind speed zones

3,000

Total population living in **90 km/h** wind speed zones

11,000

Total population living in **60 km/h** wind speed zones

Country/District	Wind Speed Zones			Total
	120 km/h	90 km/h	60 km/h	
Bahamas				
Berry Islands			749	749
Biminis		4	1,737	1,741
Central Abaco	12,247			12,247
Central Eleuthera			1,585	1,585
City of Freeport	8,609			8,609
East Grand Bahama	4,996			4,996
Exuma				0
Grand Cay	24			24
Harbour Island			1,657	1,657
Hope Town	703			703
Moore's Island	258			259
New Providence			71	71
North Abaco	4,164			4,164
North Andros			13	13
North Eleuthera			3,444	3,444
South Abaco	483	2,869		3,352
South Eleuthera			919	919
Spanish Wells			1,067	1,067
West Grand Bahama	40,730			40,730
Total	72,214	2,874	11,243	86,332

The population exposure, summarized by Department and Commune, has been calculated using a 100 m resolution WorldPop dataset. This is a preliminary analysis & has not yet been validated in the field.

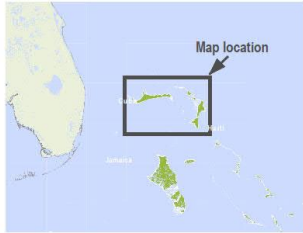
Download complete excel table from [here](#)



BAHAMAS

Grand Bahama & Great Abaco Islands

Analysis:(01 September 2019) | Published Monday, September 2, 2019



Tropical Cyclone Dorian : Path and Wind Speed Zones

This map illustrates the tropical cyclone Dorian path with high, medium and low wind impact zones predicted between 01 September 2019 at 18:00 UTC and 03 September 2019 at 06:00 UTC in Bahamas. The tropical cyclone path and wind speed zones were derived from JRC. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR-UNOSAT.

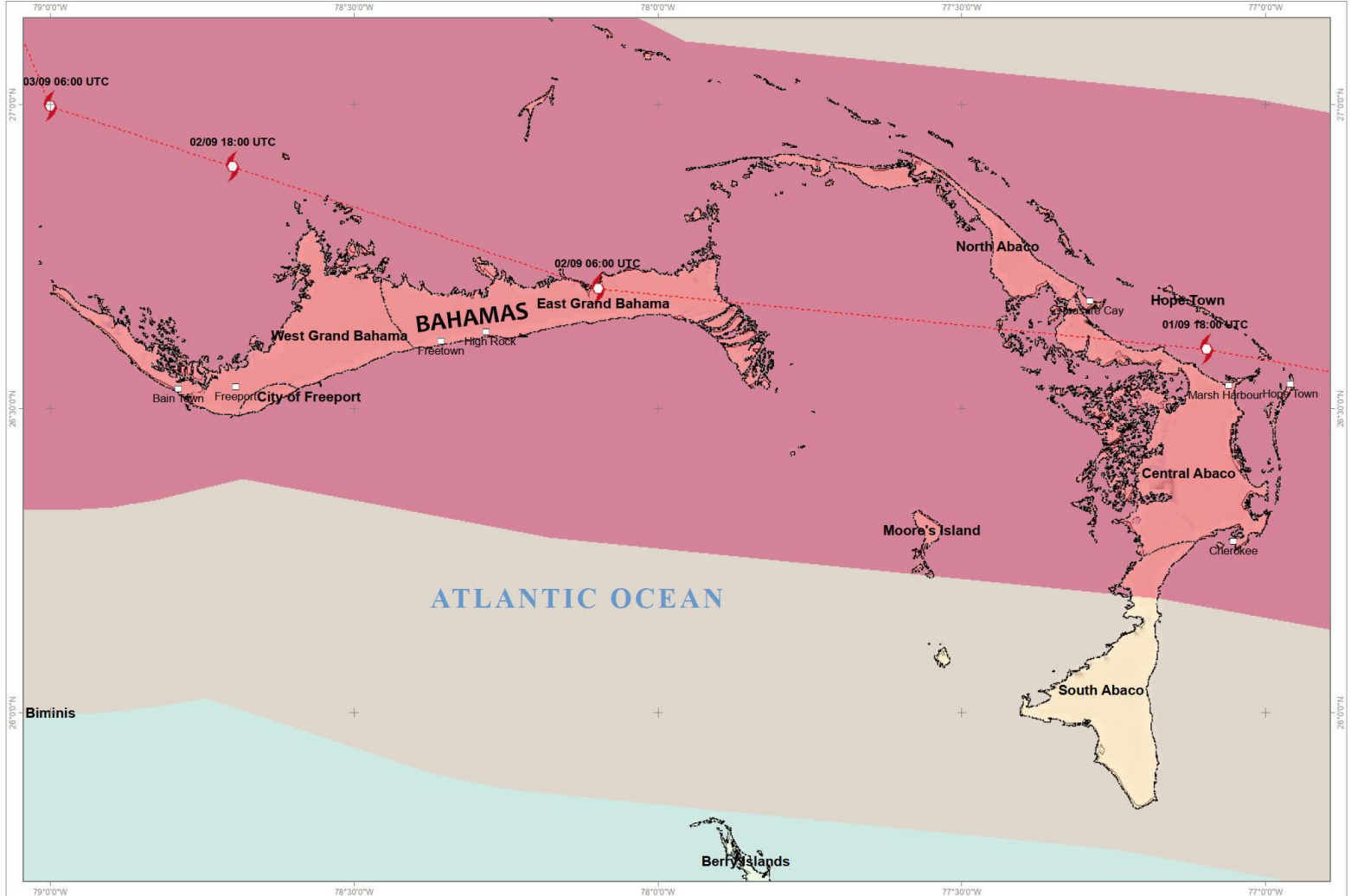
Legend

- City/Town
- Predicted Position
- Cyclone track
- District boundary
- Wind speed zone**
 - 120 km/h
 - 60 km/h
 - 90 km/h

Map Scale for A3: 1:725,000



Analysis conducted with ArcGIS v10.3
 Coordinate System: GCS WGS 1984
 Datum: WGS 1984
 Units: Degree



Wind Speed Data : Joint Research Centre
 Date Series: 01 September 2019
 Copyright: JRC
 Source: JRC

Baseline Data : HDX, GADM
 Analysis : UNITAR - UNOSAT
 Production: UNITAR - UNOSAT

The depiction and use of boundaries, geographic names and related data shown here are not warranted to be error-free nor do they imply official endorsement or acceptance by the United Nations. UNOSAT is a program of the United Nations Institute for Training and Research (UNITAR), providing satellite imagery and related geographic information, research and analysis to UN humanitarian & development agencies & their implementing partners. This work by UNITAR-UNOSAT is licensed under a CC BY-NC 3.0