


# COMPREHENSIVE BUILDING DAMAGE ASSESSMENT FOR PORT-AU-PRINCE COMMUNE, HAITI (VERSION 2)

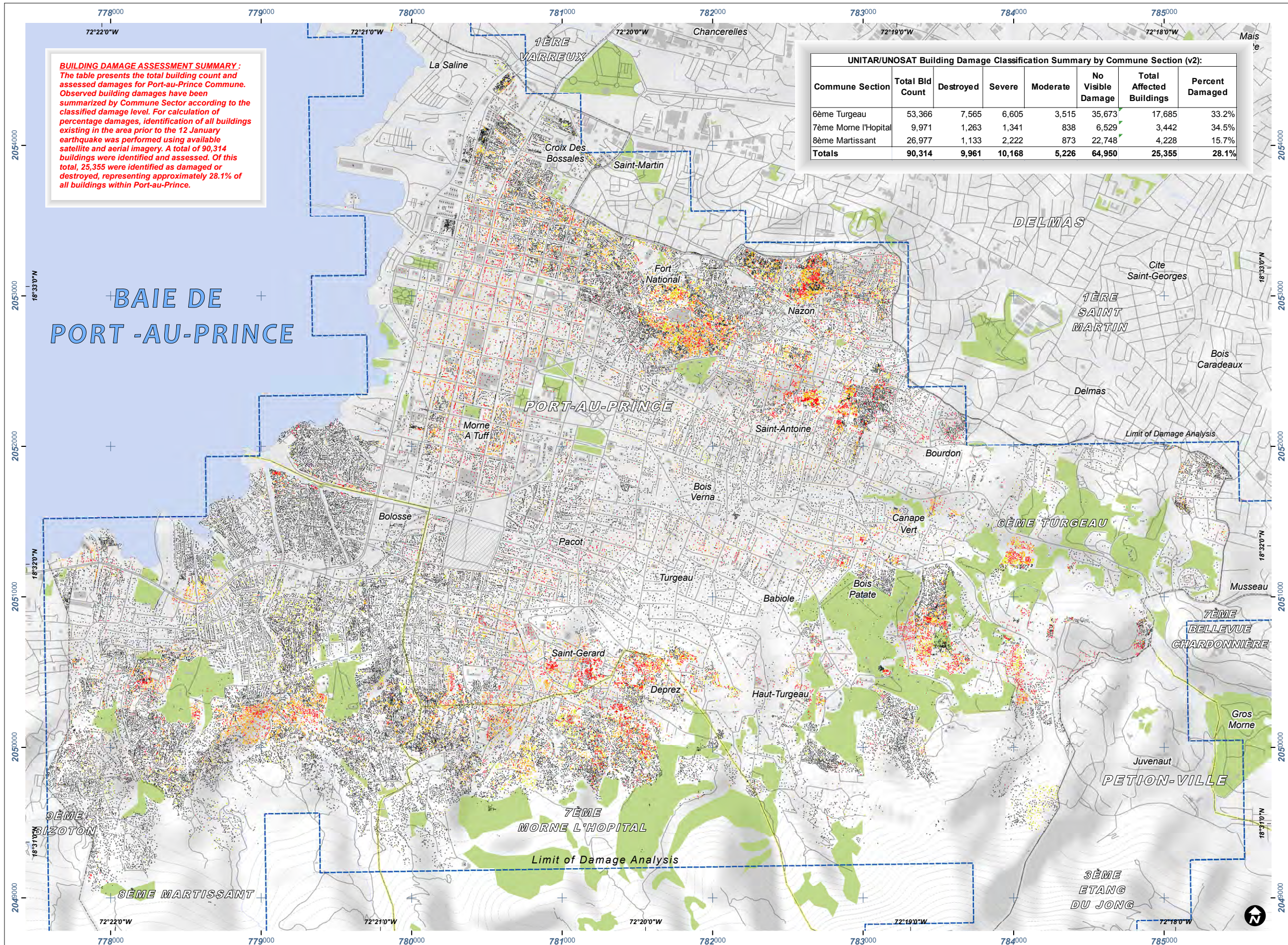
Damage analysis of individual buildings based on post-earthquake aerial photos and pre-earthquake satellite imagery

This map presents a revised total building count and damages as assessed from both satellite and aerial survey imagery covering the Commune of Port-au-Prince. Damaged buildings were classified according to visually-assessed damage levels and summarized in a table by Commune Sector. This work is done at the request of UNDP, and in support of the UN-led efforts in the aftermath of the Haiti earthquake. Swisstopo and the Remote Sensing Laboratories (RSL) at the University of Zurich provided extensive pre-crisis building data in direct technical support of this UN damage analysis. Initial reference data were received from collaborative centers (European Commission JRC with the support of the Stability Instrument; Sertit/Space Charter) and other supporting entities (ITHACA, DLR, OSM). This analysis will be validated in the field during PDNA and recovery activities.

**Earthquake**  
**7.0M**





**11 February 2010**  
**(20:30:00 UTC)**  
**Version 2.0**  
  
Glide No:  
**EQ-2010-000009-HTI**





UNITAR/UNOSAT Building Damage Classification Summary by Commune Section (v2):							
Commune Section	Total Bld Count	Destroyed	Severe	Moderate	No Visible Damage	Total Affected Buildings	Percent Damaged
6ème Turgeau	53,366	7,565	6,605	3,515	35,673	17,685	33.2%
7ème Morne l'Hopital	9,971	1,263	1,341	838	6,529	3,442	34.5%
8ème Martissant	26,977	1,133	2,222	873	22,748	4,228	15.7%
Totals	90,314	9,961	10,168	5,226	64,950	25,355	28.1%

**Damage legend key:**

**DESTROYED :**  
All or most of building structure collapsed


**SEVERE DAMAGE :**  
Part of building structure collapsed, such as part of roof or one or more fallen walls


**MODERATE DAMAGE :**  
Limited damage observed to building, or no damage observed but immediately adjacent to destroyed building


**NO VISIBLE DAMAGE**  
Assessed building does not appear to be damaged


The four damage Levels: Destroyed, Severe Damage, Moderate Damage and No Visible Damage. This damage assessment was made with standard image interpretation methods. Detected damages are likely to represent minimum estimates; actual building damages may be larger due to limits in spatial and spectral resolution of available satellite and aerial imagery.


**Building Point Classification**


 ..... Destroyed


 ..... Severe Damage


 ..... Moderate Damage


 ..... No Visible Damage


 ..... Main Building Complex


 ..... Park / Forest


 ..... Commune Boundary

 ..... Section Boundary

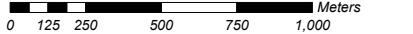
 ..... Water Body

 ..... Cemetery

 ..... Primary / Secondary Rd

 ..... Analysis Extent

**Map Scale for A3: 1:25,000**  
UTM grid coordinates given in 1km intervals  
Elevation contour lines in 20 meter intervals



Satellite Data ..... WorldView-2

Imagery Dates ..... 19 Dec.2009 / 7-15 Jan. 2010

Resolution ..... 50cm

Copyright ..... DigitalGlobe

Aerial Photos ..... NOAA / Google

Imagery Date ..... 18 Jan / 21 Jan 2010

Copyright ..... NOAA / Google

Source ..... USGS / ERDAS APOLLO WMS

Building Data ..... Swisstopo/RSL-Zurich/UNOSAT

Road & Urban Data ..... Open Street Map

Place Names ..... OCHA, Google Map Maker

Other Data ..... MINUSTAH, USGS, NGA

Elevation Data ..... ASTER GDEM

Source ..... METI & NASA 2009

Damage Analysis ..... UNITAR / UNOSAT

Map Production ..... UNITAR / UNOSAT

Projection ..... UTM Zone 18 North

Datum ..... NAD-83

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.



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