DAMAGED ASSESSMENT OVERVIEW FOR GAZA NORTH - UPDATE 4
Damage Analysis Worldview Satellite Imagery from 19-10-6 January 2009 & Quickbird 16 January 2009

ANALYSIS DESCRIPTION: This map presents a satellite-based damage assessment for the Gaza North Governorate following the January ceasefires with Israel. Imagery has been acquired using the WorldView-1 & QuickBird satellites. WorldView-1 satellite imagery acquired on 6, 10 and 19 January 2009, at a reduced spatial resolution of 2 meters. QuickBird satellite imagery of 16 January 2009, at a reduced spatial resolution of 2.44 meters.

Please note: Because of the reduced spatial resolution of the satellite imagery, this confidence level for damage identification within dense urban areas is significantly reduced. It is highly probable, therefore, that the damages currently identified in this map underestimate the actual level of damages present on the ground at the time of satellite image acquisition.

Summary of Preliminary Damage Analysis


Gaza North 143 80 18 80 294 76

Map Scale for A3: 1:30’000

UNOSAT-2009-000022
ANALYSIS DESCRIPTION: This map presents a preliminary assessment of the damage sustained by the Gaza strip during the 2009 conflict. The analysis was conducted by experts from the United Nations Institute for Training and Research (UNITAR) Operational Satellite Applications Program (UNOSAT). The assessment was based on satellite imagery interpretation methods with WorldView-1 satellite imagery acquired on 6, 10, and 19 January 2009, and QuickBird satellite imagery of 16 January 2009, at a reduced spatial resolution of 2 meters.

Summary of Preliminary Damage Analysis

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Buildings Destroyed</th>
<th>Buildings Severely Damaged</th>
<th>Impact Centers Roads/Bridge</th>
<th>Impact Centers Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaza</td>
<td>933</td>
<td>262</td>
<td>82</td>
<td>172</td>
</tr>
</tbody>
</table>

Please note: Because of the reduced spatial resolution of this satellite imagery, the confidence level for damage identification within dense urban areas is significantly reduced. It is highly probable, therefore, that the damages currently identified in this map underestimate the actual level of damages present on the ground at the time of satellite image acquisition.

Map Scale for A3: 1:38,000
**Summary of Preliminary Damage Analysis**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Middle Area</td>
<td>88</td>
<td>16</td>
<td>11</td>
<td>59</td>
<td>176</td>
</tr>
</tbody>
</table>

**ANALYSIS DESCRIPTION:**

This map presents a satellite-based damage assessment for the Middle Area following the January ceasefires. Damages have been summarized by the type of damage detected. The assessment is based on standard image interpretation methods with WorldView-1 satellite imagery acquired on 10 and 19 January 2009, at a reduced spatial resolution of 2 meters.

Please note: Because of the reduced spatial resolution of this satellite imagery, the confidence level for damage identification within dense urban areas is significantly reduced. It is highly probable, therefore, that the damages currently identified are less than the actual level of damages present on the ground at the time of satellite image acquisition.

**SATELLITE DAMAGE ASSESSMENT**

- Buildings: Likely Destroyed
- Buildings: Likely Severely Damaged
- Impact Crater (Road)
- Impact Crater (Field)

**ROAD TYPES**

- Primary Road
- Secondary Road
- Unpaved / Track

**ADMINISTRATIVE / ANALYSIS BORDERS**

- Governorate Boundary
- 1950 Armistice Line
- International Boundary

**LANDCOVER ZONES**

- Security Zone
- Refugee Camp
- Urban Areas

**Map Scale for A3:** 1:38'000

**Map Legend**

- Location Sites
  - Ministry of Health
  - UNRWA Health Center
  - UNRWA School
  - UNRWA Office / Facility
  - Border Crossing
  - Checkpoint

- Satellite Damage Assessment
  - Buildings: Likely Destroyed
  - Buildings: Likely Severely Damaged
  - Impact Crater (Road)
  - Impact Crater (Field)

- Road Types
  - Primary Road
  - Secondary Road
  - Unpaved / Track

- Administrative / Analysis Borders
  - Governorate Boundary
  - 1950 Armistice Line
  - International Boundary

- Landcover Zones
  - Security Zone
  - Refugee Camp
  - Urban Areas

**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. This map was produced by the United Nations Institute for Training and Research (UNITAR) Operational Satellite Applications Program (UNOSAT) to assist humanitarian partners in meeting their needs.**

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UNOSAT provides satellite imagery & related geographic information to UN humanitarian & development agencies & their implementing partners.
ANALYSIS DESCRIPTION: The map presents a satellite-based damage assessment for the Rafah following the January ceasefires. Damages have been summarized by building type and location. This assessment was conducted using QuickBird-02 satellite imagery acquired on 21 January 2009, and WorldView-1 satellite imagery of 10 and 19 January 2009, at a reduced spatial resolution of 2 meters.

Please note: Because of the reduced spatial resolution of the satellite imagery, the confidence level for damage identification within densely urbanized areas is significantly reduced. It is likely possible, therefore, that the damages currently identified in this map underestimate the actual level of damages present on the ground at the time of satellite image acquisition.

Summary of Preliminary Damage Analysis

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</thead>
<tbody>
<tr>
<td>Rafah</td>
<td>686</td>
<td>75</td>
<td>43</td>
<td>243</td>
<td>941</td>
</tr>
</tbody>
</table>