ANALYSIS DESCRIPTION: This map presents a satellite-based damage assessment for the Gaza North Governorate following the January ceasefires. Damages have been summarized by type of damage detected. Buildings, infrastructure, roads and demolition areas have been identified by standard image 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. Please note: Because of the reduced spatial resolution of this satellite imagery, the confidence level of 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 damage present on the ground at the time of satellite image acquisition.

SUMMARY OF PRELIMINARY DAMAGE ANALYSIS

---|---|---|---|---|---
Gaza North | 547 | 62 | 68 | 66 | 256

Please note: Because of the reduced spatial resolution of this satellite imagery, the confidence level of 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 damage present on the ground at the time of satellite image acquisition.
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). UNOSAT provides satellite imagery & related geographic information to UN humanitarian & development agencies & their implementing partners.

**Map Legend**
- **Satellite Image (1)**: QuickBird-02
  - Resolution: 2m (Reduced Resolution)
  - Imagery Dates: 16 January 2009
  - Copyright: Digital Globe (2008)
- **Satellite Image (2)**: WorldView-1
  - Resolution: 2 m (Reduced Resolution)
  - Imagery Dates: 6, 10, & 19 January 2009
  - Copyright: Digital Globe (2008)
- **Damage Analysis**: UNOSAT
- **GIS Data**: UNRWA, OCHA, UNOSAT
- **Projection**: UTM Zone 36 North - WGS84

**Security Event**
- Date: 26 February 2009
- Version 1.0

**Event ID**: UNOSAT-2009-000022

**Map Extent**
- Gaza Strip

**Legend**
- **Site Types**
  - Ministry of Health/NGO
  - UNRWA School
  - Bridge/Border Crossing
- **SATELLITE DAMAGE ASSESSMENT**
  - Likely Destroyed
  - Severely Damaged
- **Impact Crater (Road)**
- **Impact Crater (Field)**
- **Road Types**
  - Primary Road
  - Secondary Road
  - Unpaved/Track
- **Administrative/Analysis Borders**
  - Governorate Boundary
  - 1950 Armistice Line
- **Landcover Zones**
  - Security Zone
  - UNRWA HQ Compound
  - Refugee Camp
  - Urban Areas

**Analysis Description**
This map presents a satellite-based damage assessment for the Gaza Strip following the January ceasefires. Damages have been summarized by the type of damage detected at each building, infrastructure, road, or demolition area. Image interpretation methods with QuickBird-1 satellite imagery acquired on 16 January 2009, and WorldView-1 satellite imagery acquired on 6, 10, and 19 January 2009, were used. These satellite images were acquired 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 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**

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Buildings: Destroyed</th>
<th>Buildings: Severely Damaged</th>
<th>Roads</th>
<th>Fields</th>
<th>Governorate Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Area</td>
<td>88</td>
<td>16</td>
<td>17</td>
<td>59</td>
<td>176</td>
</tr>
</tbody>
</table>

**ANALYSIS DESCRIPTION:** The map presents a satellite-based damage assessment of buildings, infrastructure, roads and security areas in response to the January ceasefires in the Middle Area of the Occupied Palestinian Territories. The damages have been summarized using standard image interpretation methods with QuickBird-02 satellite imagery acquired on 16 January 2009, and WorldView-1 satellite imagery of 10 and 19 January 2009. The buildings in the Middle Area have been assessed for damage levels of Destroyed, Severely Damaged, Likely Severely Damaged, and Likely Destroyed. Damages to roads include craters on roads and fields. The analysis was produced by the United Nations Institute for Training and Research (UNITAR) Operational Satellite Applications Program (UNOSAT) for the Early Recovery Cluster Network.

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

**Map Legend:**
- **Location Sites**
  - Ministry of Health
  - UNRWA Health Center
  - UNRWA School
  - Border Crossing
  - Checkpoint
- **Satellite Damage Assessment**
  - Likely Destroyed
  - Building: 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
- **Landcover Zones**
  - Security Zone
  - UNRWA HQ Compound
  - Refugee Camp
  - Urban Areas
ANALYSIS DESCRIPTION: This map presents a satellite-based damage assessment for the Khan Yunis following the January ceasefires. Damages have been identified by the type of damage detected, with standard image interpretation methods with WorldView-1 satellite imagery acquired on 10-19 January 2009, and Quickbird satellite imagery of 21 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 in this map underestimate the actual level of damages present on the ground at the time of satellite image acquisition.

Map Scale for A3: 1:50’000

<table>
<thead>
<tr>
<th>Landcover Zones</th>
<th>Location Sites</th>
<th>Security Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Areas</td>
<td>UNRWA Health Center</td>
<td>Emergency Cluster Network</td>
</tr>
<tr>
<td>Refugee Camps</td>
<td>UNRWA Office/Facility</td>
<td>Early Recovery</td>
</tr>
<tr>
<td>UNRWA HQ</td>
<td>Bridge</td>
<td>Security Event</td>
</tr>
<tr>
<td>Compound</td>
<td>Border Crossing</td>
<td>Version 1.0</td>
</tr>
<tr>
<td></td>
<td>Checkpoint</td>
<td>Contact Information: <a href="mailto:info@unosat.org">info@unosat.org</a></td>
</tr>
<tr>
<td></td>
<td>UNRAD</td>
<td>24/7 Hotline: +41 76 487 4998</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.unosat.org">www.unosat.org</a></td>
</tr>
</tbody>
</table>

SATELLITE DAMAGE ASSESSMENT

Building: Likely Destroyed
Building: 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

SUMMARY OF PRELIMINARY DAMAGE ANALYSIS

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Buildings Destroyed</th>
<th>Buildings Severely Damaged</th>
<th>Impact Craters Roads</th>
<th>Impact Craters Fields</th>
<th>Governorate Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khan Yunis</td>
<td>205</td>
<td>88</td>
<td>16</td>
<td>88</td>
<td>403</td>
</tr>
</tbody>
</table>

Damage Analysis Worldview Satellite Imagery from 10-19 January 2009 & Quickbird 21 January 2009
ANALYSIS DESCRIPTION: This map presents a satellite-based damage assessment for the Rafah Governorate following the January ceasefires. The damages have been summarized by the type of damage (Buildings, Infrastructure, Roads) and the level of severity (Likely Destroyed, Likely Severely Damaged). The analysis is based on QuickBird (21 January 2009) and WorldView-1 (10 and 19 January 2009) satellite imagery, at a reduced spatial resolution of 2 meters.

Please note that because of the reduced spatial resolution of the 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.

Summary of Preliminary Damage Analysis

<table>
<thead>
<tr>
<th>Category</th>
<th>Likely Destroyed</th>
<th>Likely Severely Damaged</th>
<th>Impact Crater (Road)</th>
<th>Impact Crater (Field)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rafah Governorate</td>
<td>686</td>
<td>71</td>
<td>43</td>
<td>141</td>
</tr>
<tr>
<td>Total</td>
<td>941</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>