

DAMAGE ASSESSMENT FOR THE GAZA STRIP (AS OF 10 JANUARY 2009)

Security Event 15 January 2009
Version 1.0
UNOSAT-2009-000005

DAMAGE ASSESSMENT WITH
WORLDVIEW-1 SATELLITE IMAGERY
FROM 6 & 10 JANUARY 2009

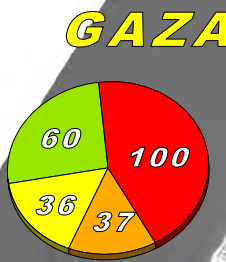
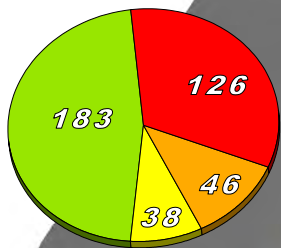
This map presents a preliminary and on-going satellite-based damage assessment for the whole of the Gaza Strip. Damaged buildings, infrastructure and impact craters have been identified with WorldView-1 satellite imagery acquired on 10 & 6 January 2009, and received at a reduced spatial resolution of 2 meters. Pre-crisis Ikonos satellite imagery from June 2005 was also used. Affected buildings were classified either as destroyed or severely damaged by standard image interpretation methods. Destroyed buildings have been defined by the total collapse of the structure or when it was standing but with less than 50% of the roof still intact. Severely damaged buildings were defined as having visible structural damage to a portion of one wall, or where a section of the roof was damaged but with over 50% of the roof still intact.

Please note: Buildings not marked in the map as damaged does not imply the buildings are undamaged, only that damages were not identified with the available satellite imagery at the time of map publication. 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 building and infrastructure damages present on the ground at the time of satellite image acquisition. This damage map will be revised and updated as additional analysis and ground information is available. Please send any additions/corrections to UNOSAT.

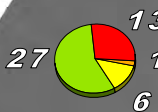
Summary of Damage Analysis for Gaza Strip by Governorate

Total estimate of identified affected buildings is 400: Affected building sub-totals by damage level: 302 buildings have likely been destroyed & 98 buildings have likely been severely damaged. There are an additional 97 impact craters identified on roads & 395 impact craters identified in cultivated or empty fields.

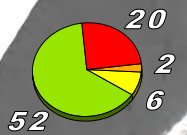
| Governorate | Buildings Destroyed | Severely Damaged | Impact Craters: Roads | Impact Craters: Fields | Governorate total |
|----------------------|---------------------|------------------|-----------------------|------------------------|-------------------|
| Gaza | 100 | 37 | 36 | 60 | 233 |
| Gaza North | 126 | 46 | 38 | 183 | 393 |
| Middle Area | 13 | 1 | 6 | 27 | 47 |
| Khan Yunis | 20 | 2 | 6 | 52 | 80 |
| Rafah | 43 | 12 | 11 | 73 | 139 |
| Damage Totals | 302 | 98 | 97 | 395 | 892 |



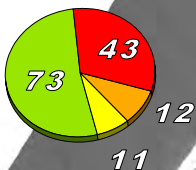
MIDDLE AREA



KHAN YUNIS



RAFAH



AshShati' Camp

GAZA

GAZA NORTH

GAZA NORTH

GAZA

MIDDLE AREA

KHAN YUNIS

RAFAH

EGYPT

ISRAEL

Image Classification: Damage Classes



1. Buildings: Destroyed



2. Buildings: Severely Damaged



3. Impact Craters: Roads



4. Impact Craters: Fields

Map Legend

BORDER SITES

☒ Border Crossing Point

SATELLITE DAMAGE ASSESSMENT SITES

■ Building: Likely Destroyed

■ Building: Likely Severely Damaged

■ Impact Crater (Road)

■ Impact Crater (Empty or Cultivated Field)

LANDCOVER ZONES

▨ Security Zone

■ Refugee Camp

POLITICAL BOUNDARIES

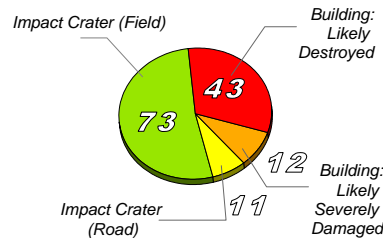
— International Border

..... 1950 Armistice Line

..... Governorate Boundary

DAMAGE SUMMARY BY GOVERNORATE

Number of Damage Sites by Type



MAP SCALE FOR A3: 1:115,000



Satellite Image (1) WorldView-1
Resolution 2m (Reduced Resolution)
Imagery Dates 10 & 6 January 2009
Copyright Digital Globe (2008)
Distributed by Eurimage (6 Jan09)
Satellite Image (2) Ikonos (2m)
Imagery Copyright GeoEye 2008
Imagery Date 6 June 2005
Damage Analysis UNOSAT
GIS Data UNRWA, OCHA, UNOSAT
Projection UTM Zone 36 North- WGS-84

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GAZA MAP FRAME ROTATED 6 DEGREES FROM NORTH

Kerem Shalom