This map illustrates satellite-detected damage and destruction in the city of Sana’a, Sana’a Governorate, Yemen. Using satellite imagery acquired 10 and 23 September 2015, as well as 15 May 2015, UNITAR-UNOSAT identified a total of 652 affected structures. Approximately 293 of these were impacted as of 10 and 23 September 2015, with 54 destroyed, 94 severely damaged, and 135 moderately damaged. Previously, using the 15 May 2015 satellite image, UNITAR-UNOSAT had located 369 affected structures, of which 60 were destroyed, 72 severely damaged, and 237 moderately damaged. Additionally, 8 impact craters and 16 areas with significant amounts of debris were observed in September 2015. A total of 7 medical facilities were identified within 100 meters of damaged and destroyed buildings, and it is possible that these facilities also sustained some damage. Notably, as of 10 and 23 September 2015, significant reconstruction of structures damaged as of 15 May 2015 was visible across the examined area. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR-UNOSAT.

**Damage Assessment of Sana’a City, Sana’a Governorate, Yemen**

**Analysis with Pleiades Data Acquired 10 & 23 September 2015 and WorldView-2 Data Acquired 15 May 2015**

<table>
<thead>
<tr>
<th>Damage Level</th>
<th>05/2015</th>
<th>09/2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destroyed Structures</td>
<td>60</td>
<td>54</td>
<td>114</td>
</tr>
<tr>
<td>Severely Damaged Structures</td>
<td>72</td>
<td>94</td>
<td>166</td>
</tr>
<tr>
<td>Moderately Damaged Structures</td>
<td>237</td>
<td>135</td>
<td>372</td>
</tr>
<tr>
<td>Total Affected Structures</td>
<td>369</td>
<td>283</td>
<td>652</td>
</tr>
<tr>
<td>Impact Craters</td>
<td>3</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>

**Sana’a City**

- **05/2015**
  - Destroyed Structures: 60
  - Severely Damaged Structures: 72
  - Moderately Damaged Structures: 237
  - Total Affected Structures: 369
  - Impact Craters: 3

- **09/2015**
  - Destroyed Structures: 54
  - Severely Damaged Structures: 94
  - Moderately Damaged Structures: 135
  - Total Affected Structures: 283
  - Impact Craters: 8

**Total**

- Destroyed Structures: 60 + 54 = 114
- Severely Damaged Structures: 72 + 94 = 166
- Moderately Damaged Structures: 237 + 135 = 372
- Total Affected Structures: 369 + 283 = 652
- Impact Craters: 3 + 8 = 11

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**Production Date:** 10/16/2015

**Version 1.0**

**Glide Number:** CE20150402YEM

**Analysis with Pleiades Data Acquired 10 & 23 September 2015 and WorldView-2 Data Acquired 15 May 2015**

- **Satellite Data (1): Pleiades**
  - Imagery Dates: 10 & 23 September 2015
  - Resolution: 50 cm
  - Copyright: CNES (2015), Distribution AIRBUS DS
  - Source: GeoStore - Airbus Defence and Space

- **Satellite Data (2): WorldView-2**
  - Imagery Date: 15 May 2015
  - Resolution: 50 cm
  - Copyright: DigitalGlobe, Inc.
  - Source: US Department of State, Humanitarian Information Unit, NextView License

- **Road Data:** Google Map Maker / OSM / ESRI
- **Other Data:** USGS, UNCS, NASA, NGA
- **Analysis:** UNITAR - UNOSAT
- **Production:** UNITAR - UNOSAT, UNDP
- **Analysis conducted with ArcGIS v10.3**
- **Coordinate System:** WGS 1984 UTM Zone 38N
  - Projection: Transverse Mercator
  - Datum: WGS 1984

- **Units:** Meter

- **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 and development agencies and their implementing partners.**

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