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## GOOD STORY

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### **Hurricane Sandy: Crowdsourcing Aids in Mapping Sandy Recovery**

*The LLIS.gov team identified several innovative Whole Community ideas and practices to support preparedness, response, and recovery following Hurricane Sandy.*

#### **SUMMARY**

Following Hurricane Sandy, multiple agencies and organizations initiated crowdsourcing activities in support of recovery operations. Crowdsourcing enabled officials to enhance community recovery by harnessing these information-sharing efforts.

#### **DESCRIPTION**

##### ***Hurricane Sandy***

On Monday, October 29, 2012, Hurricane Sandy made landfall near Atlantic City, New Jersey, pushing a massive storm surge to shore and generating winds to up to 75 miles per hour. The National Hurricane Center downgraded Sandy to a post-tropical cyclone shortly after landfall. Sandy caused storm surge, record flooding, and wind damage. Nine days after the storm, a large nor'easter caused massive snowfall undermining response operations in the disaster-impacted areas.

As a result of these events, millions of people were left without power and hundreds were displaced along the East Coast from North Carolina to Maine. New York and New Jersey, two of the most populated states in the nation, were particularly impacted by the storm.



**NASA Satellite Image of Hurricane Sandy on  
October 28, 2012**

##### ***Post-Sandy Crowdsourcing Efforts***

Multiple crowdsourcing efforts were initiated to support recovery operations in the wake of Hurricane Sandy. Crowdsourcing allows for the online collection and combination of information from multiple sources for presentation in a visual map or timeline.

The Federal Emergency Management Agency, in partnership with the Civil Air Patrol (CAP), and the Readiness, Response, Recovery (R3) team from the National Geospatial Intelligence Agency (NGA) enlisted the assistance of on-line volunteers to conduct aerial damage assessments. Volunteers, including the [Crisis Mappers](#) and [OpenStreetMap](#) teams, were asked to visually review aerial images collected by the CAP and assign damage assessment ratings.

**Images from "sandy"**  
 Sorted worst to best | [grid](#) | [sort this site](#) | [view unsorted](#)  
 (35527 images, 77.0/100 average, ~43.58 votes per image, 100% have votes, >7172 participants)

« Previous 1 2 3 4 5 6 7 8 9 ... 1776 1777 Next »

0 out of 10   11 reviewers  ± ~ -	0 out of 10   11 reviewers  ± ~ -	0 out of 10   11 reviewers  ± ~ -	1 out of 10   6 reviewers  ± ~ -	1 out of 10   6 reviewers  ± ~ -
1 out of 10   6 reviewers  ± ~ -	1 out of 10   9 reviewers  ± ~ -	1 out of 10   9 reviewers  ± ~ -	1 out of 10   9 reviewers  ± ~ -	0 out of 10   20 reviewers  ± ~ -

**Aerial imagery collected by CAP and evaluated by volunteers after Hurricane Sandy**

Damage scale:

- Green: Light or No Damage: shingles or doors missing.
- Yellow: Moderate Damage: moderate to heavy damage to one or more structures, roads, and infrastructure. Some structures may be only lightly damaged.
- Red: Severe Damage: heavy damage to multiple structures, or if the area is still flooded.

The results of this effort were critical to assist first responders in prioritizing and accelerating efforts to provide assistance to areas in greatest need. On November 4, 2012, New Jersey Federal Coordinating Officer Mike Hall, stated in a [video message](#) directed to the volunteers, "This is an unprecedented effort and your help in reviewing incoming imagery to help speed damage assessments is paying off. We now have over 4000 online volunteers categorizing images and the results have given us a collected view of the impacted areas that is helping responders prioritize to speed assistance where it's needed most. ... Again, thank you for your help."

Other Sandy-related crowd maps emerged, including the [Staten Island Hurricane Sandy Recovery](#) map that provided information on housing, volunteer needs, shelters, technology, and other critical resources. Similarly, the [Hurricane Sandy Communication](#) map listed locations with free public Wi-Fi and electronics charging stations. Crowdsourcing enables officials to harness volunteer efforts to share information and enhance community recovery efforts.

## REFERENCES

Crisis Mappers

<http://crisismappers.net/>

Federal Emergency Management Agency Media Library. *HOTOSM - Crowdsourcing Mapping*. 4 Nov. 2012. (Video accessed on 27 December 2012).

[http://www.fema.gov/media/library/media\\_records/10369](http://www.fema.gov/media/library/media_records/10369)

Hurricane Sandy Communication map

<https://sandycommsmap.crowdmap.com/>

*Images from "Sandy."* (Website accessed on 27 December 2012).

<http://sandy.hotosm.org>

OpenStreetMapUS

<http://www.openstreetmap.us/>

Staten Island Hurricane Sandy Recovery

<https://statenisland.crowdmap.com/>

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