

Supplemental Materials

Tweet Message Examples of Different Categories

- preparedness.prepare: if a message contains information about preparation, getting ready, *etc.*, without mentioning specific actions, such as heading to a store. Example: Getting ready for the hurricane; We aren't just set for #Sandy, we're ready for the apocalypse on the #UWS in #NYC; I'm now preparing for SANDY.
- preparedness.plans: if a message reports information about emergency plans. Example: I need plans for tonight before the other storm approaches and kills me.
- preparedness.shelterinplace: if a message conveys information about staying home and keeping safe. Example: Good mornin twit fam 2 bless 2 be stress Sun stay safe during SANDY #safe; Hurricane Sandy #staysafe; View from the room, wet & windy in NYC #staysafe #sandy.
- preparedness.stock up: if a message reports actions in stocking up goods, food, tools, *etc.*, in a store. Example: More post-Sandy stocking up; Time to stock up for #hurricanesandy @ Polish Provisions; Driving around listening to @SpamAllstars while I get hurricane supplies #WaitingForSandy.
- preparedness.prepare_for_outage: if a message includes information about charging electrical products (e.g., phones and notebooks), or purchasing generators, candles, flashlights, *etc.*, in case of power outage. Example: Hm. Think we charged enough batteries If it was in the Peak we'd be down the pub and here they're buying generators and sandbags... #sandy; but NOT to the putz who forgot to check the back-up generator before a hurricane!; hey bro let ur followers know free flashlight app for phones if in trouble #HurricaneSandy; The storm is a perfect excuse to by a thousand candles I'm so loving it!! I'm going to have a beautiful light show later;
- preparedness.evacuation: if a message conveys information about leaving the home or city, seeking refuge, sleeping outside, or staying with friends or involves police asking citizens to evacuate the potential flooding zone. Examples: Brooklyn bridge inbound expecting 30 min greater delays. Zone A evac. #sandy; Ok, here we go. Officially Evacuating. Fun times ahead? #HurricaneSandy; Escaping the annual hurricane in #NYC. NYU Med. Ctr. is evacuating patients from power failure.
- preparedness.tip: if a message contains information about advice for behavior during the disaster. Examples: Safety tips: watch out for a plethora of antiquated poorly secured tv antennas falling from the sky #HurricaneSandy; #hurricane #damage #tree Never park under a tree during a storm. NEVER @ Home; Nine ways to make your cell phone last the whole storm even if the power goes out; Got 2 weeks worth of wine, cheese & turntable batteries. Watching "Shaun of the Dead" for survival tips. Let's do this. #Frankenstorm; #Frankenstorm tip to the people of #nyc don't buy so many perishable foods, if the power goes out you'll just be stuck with a lot garbage.
- preparedness.event_tracking: if a message contains information about tracking the status of the disaster event by watching the news from TV or other sources. Examples: Watching NBC #hurricanesandy; live Hurricane Sandy Coverage-the weather channel; Service Alerts: Hurricane Sandy be coming!; Morning Sandy updates. Track keeps shifting subtly north; waiting for the storm to arrive in NYC, here's who's mapping it.

- **response.organization:** if a message contains references to disaster response and recovery organizations, such as Red Cross, emergency medical services (EMS), Federal Emergency Management Agency (FEMA), Office of Emergency Management (OEM), official New York City police department (NYPD), Salvation Army, *etc.* Examples: FEMA: Defense Logistics Agency to buy 12M gallons of unleaded gas, 10M of diesel; purchases to be distributed in NY&NJ communities #Sandy.
- **response.housing:** if a message contains information about staying in a hotel or shelter. Example: play the #wwhl drinking game in our sandy shelter certainly makes things a lot more fun!; Stuck at the hotel in North Bergen, NJ #Sandy #Hurricane.
- **response.food:** if a message reports information about getting free meals, or seeing a FEMA food truck. Examples: Refugees' first civilized meal in days #Sandy; Food trucks by union square. #grilledcheese #sandy @ Union Square Park; Free lunch #sandyrelief.
- **response.utilities.power:** if a message reports information about emergency power or emergency generators.
- **response.rescue:** if a message reports rescues of disaster victims. Examples: National Guard making rescues in Hoboken #hoboken #sandy #nj @ Hoboken NJ; Air rescue near the Brooklyn Bridge. #Sandy @ Brooklyn Bridge Park; God bless these guys. Rescuing at least 20 of my neighbors. #sandy #hurricane @ Willow Ave & 19th St Bus Stop.
- **impact.business:** if a message reports information about closing stores, parks, businesses, office, malls, or restaurants or the delay or cancellation of planned events or schedules, *etc.* Example: Even starbucks is closing at 6pm; NYC marathon is canceled.
- **impact.casualty:** if a message reports information about disaster-caused deaths. Example: Man killed by falling tree in Queens, NYC, in first confirmed US death linked to post-tropical storm; 5 deaths in NY so far due to Sandy.
- **impact.work:** if a message reports information about closed offices, losing jobs, or time off work. Example: Just got the No Work tomorrow phone call!! Thanks #HurricaneSandy; No work for two days. Thanks #sandy.
- **impact.communication:** if a message reports information about the failure of or disaster impact on internet, cable, and wifi. Example: No cable/internet in the apartment but we do have power.
- **impact.utilities.heating:** if a message conveys information about problems with heating. Example: Still no heat/hot water. #sandy; Coming back to no heat and no hot water; Day 2 of no heat in the office. 5 layers of cotton, wool, cashmere and shearling.
- **impact.utilities.gas:** if a message conveys information about gas shortages. Examples: Just saw a massive line of people waiting to get gas.
- **impact.utilities.water:** if a message reports information about water problems. Example: No bottled water left at Duane Reade. #Sandy; No water at stores in NYC #sandy.
- **impact.utilities.power:** if a message reports information about power outages. Example: Anyone else's power out? Weird.#power #failure @ Union Square (14 Street).
- **impact.damage:** if a message reports information about infrastructure damage caused by the disaster. Example: Structural damage in Hoboken after Sandy @ Hoboken; #sandy Brooklyn damage; The handle got ripped off the door during #Sandy. The scaffolding around my apartment building is breaking and falling down #Sandy.

- **impact.flood:** if a message reports information about flooding. Example: Another image of water flooding downtown. #sandy; WTC is flooded; The Gowanus is flooding on second street to about fifteen feet up the block. #HurricaneSandy #SunsetPark.
- **impact.general_impact:** if a message just contains information about things or people affected by the disaster. Example: Damn you Hurricane Sandy New York is shut; Sandy puts the city that never sleeps to rest.
- **impact.school:** if a message reports information about school closures. Example: Walcott says 200 schools were impacted by #sandy; No school Monday & Tuesday, thank you #Sandy.
- **impact.aftermath:** if a message conveys information about messes after the disaster; typically a photo is attached with the message to show the mess. Example: On the way to work. #hurricanesandy #aftermath #mta; Man, the Rockaways are in a bad shape after #sandy.
- **impact.tree:** if a message reports information about tree damage. Example: More #HurricaneSandy damage pix. Bigger tree down; Tree meets car in #bayridge #nyc #sandy @ 74th St & 3rd Ave Brooklyn.
- **impact.transportation in general:** if a message reports information about commuting problems or damage to transportation systems and infrastructure. Example: want to come to dinner on Fri! But the commuting options due to sandy/snow are killing me. Will dinner be early? No transportation after 7 pm in NYC, thank you #Sandy.
- **impact.transportation.traffic:** if a message reports information about traffic status. Examples: If this traffic moves any slower, I'm going to have a hurricane evacuation in my bus seat #traffic #Sandy; No traffic to midtown due to shortage of gas.
- **impact.transportation.subway:** if a message contains information about the impact on or damage to the subway system or delay, congestion, or cancellation of subway services. Example: MTA shutting down at 7pm due to Sandy.
- **impact.transportation.bus:** if a message reports information about the impact on or damage to the bus system or delay, congestion, or cancellation of bus services. Example: Insane bus lines on Lexington Ave in the aftermath of #sandy; #NJTransit still affected by Sandy? This bus is just about twenty minutes late; Bus lines NYC #sandy #bus #nyc #aftermath #lines #portauthority #fuckyouandy @ Port Authority Bus Terminal; Megabus strands a ton of people in New York because of Hurricane Sandy; Line to get on second ave bus at 60th st #sandyproblems.
- **impact.transportation.ferry:** if a message reports information about the delay, congestion, or shutdown of ferry services. Example: No SI ferry before NYC Marathon means I'm on a 4:30 am bus from NY Public Library. Yikes that's early! #marathon #sandy.
- **impact.transportation.road:** if a message reports information about the closure of a road, street, bridge, or tunnel. Example: Dean street near Bond closed due to fallen tree. #sandy #brooklyn; Manhattan bridge is closed, lights are off in lower Manhattan thanks to #sandy.
- **impact.transportation.airport:** if a message reports information about the impact, damage, or shutdown of airports or delays or cancellations of flights. Example: Due to floodwaters generated by #Sandy, the Port Authority has closed JFK Intl. Airport until further notice; Almost all the flights are cancelled due to the snow storm; Flight home today was cancelled.

- **recovery.business:** if a message reports information about the reopening or return to normal of stores, parks, businesses, offices, malls, restaurants, *etc.* Examples: Almost cried when I saw that Astor Wine Shop was open with #stormaddled; Trader Joe's reopening at 2 PM. #Sandy; Glad to hear Medulla is back in business #sandy; Starbucks has reopened in the neighborhood. Our nation's long nightmare is over #Sandy #sarcasm #YourMomma.
- **recovery.cleanup:** if a message contains information about removing debris caused by the disaster. Example: POTUS sped help to NY, NJ, CT and other areas battered by hurricane Sandy. @MittRomney reported he helped clean up a football field; #HurricaneSandy cleanup is still happening; Workers trying to remove fallen trees. #CentralPark #ny #nyc #sandy #hurricane #storm #n @ Central Park West.
- **recovery.work:** if a message reports information about getting back to office or work after the disaster. Example: Actually very happy to be back at work after #Sandy. I'm so relieved that I'm not spending another day stuck in my apartment!; first day back at work since this hurricane happened.. I missed money so much.
- **recovery.school:** if a message reports information about return to or reopen of school. Examples: First day commuting to school post sandy; First day back at school for New York City children after Sandy; 12 NYC schools reopen after Sandy: Twelve more New York City public schools have reopened, a sign of progress.
- **recovery.housing:** if a message reports information about returning back to home after being evacuated during the disaster. Example: Words cannot describe how good it feels to be back in my own bed for the first time since #sandy; Just got back home. No damage to my apartment. Surprised but relieved; Back home after 10 days #sandy evacuation.
- **recovery.communication:** if a message conveys information about return of internet and cable services. Example: I was unable to get my copy of @NYDailyNews - but my Internet is back on.
- **recovery.utilities.heating:** if a message reports information about the return of heating services. Example: Heating is back at last. **recovery.utilities.gas:** if a message conveys information about the return of gas availability. Example: It is nice to pass by all of these gas stations and see there are no more long lines and they all have gas; No Lines for Gas finally! #sandyaftermath.
- **recovery.utilities.water:** if a message reports information about the return of water. Example: Water back, power out. #Sandy.
- **recovery.utilities.power:** if a message reports information about the return of electricity. Example: Just got power back! #HurricaneSandy; Power just came back on. Shhh, don't tell Sandy. She's a hater; Power returns to 67,000 customers #NYC #Sandy.
- **recovery.restore:** if a message reports information about the restoration of goods and services. Example: Steady progress is being made towards restoring power and mass transit; Lower manhattan has rejoined civilization!!! #restoration #sandy; PSEG estimates time to restore power for our city could be upwards of a week.
- **recovery.fund raising/donation:** if a message contains information about the donation of money or goods or fund raising activities. Example: @NBC benefit telethon tonight to help Hurricane Sandy relief. Tune in at 8pm ET. Help raise money for @RedCross. #SandyHelp; Fundraising day at @marketingcloud! #hurricanesandy #relief #nyc; #Sandy relief drop off (@ Saloon).

- recovery.repair: if a message contains information about the repair of infrastructure that was damaged during the disaster. Example: I am ok but my landlord has lots to repair; Limited menu until it's repaired @ Peaches Restaurant.
- recovery.rebuild: if a message contains information about rebuilding infrastructure or neighborhoods and communities that were destroyed by the disaster. Example: If there is one small upside to Hurricane Sandy it's that the rebuilding effort is creating jobs; Many small business dreams have been crushed by Sandy. Let's rebuild our communities.
- recovery.recover: if a message contains information about the recovery of life and the city after the disaster. Example: Clearly were recovering from the storm; at the business recovery forum to get information for @Culture_Project We need #sandy support now; Photos of the Sandy recovery.
- recovery.relief: if a message contains information about relief actions and efforts around the disaster. Example: Romney campaign press badge for today's "storm relief event" in Ohio; RT if you've participated in the #SandyRelief; #sandy relief. No more clothing needed today; #Sandy relief at the Manhattan LDS temple building.
- recovery.humanity: if a message contains information about offering or asking for help and volunteers. Example: If you would like to #volunteer head to the L.E.S. Girls Club. You know where I will be! ; Volunteering with my family! #SandyRelief #occupysandy.
- recovery.transportation in general: if the message contains information about the restoration of transportation services. Example: MTA Service may be restored Wednesday, but perhaps not fully #Sandy.
- recovery.transportation.traffic: if a message reports information about the recovery of traffic. Example: Traffic getting to normal on the Upper East Side the Day After Sandy @ Upper East Side.
- recovery.transportation.subway: if a message contains information about the restoration of subway systems. Example: Uptown subways up and running already. Got to work without a hitch. Can't keep us down #Sandy.
- recovery.transportation.bus: if a message contains information about the restoration and availability of the bus system. Example: 3rd avenue bus running. #sandy #civilization.
- recovery.transportation.ferry: If a message reports information about the reopen and availability of the ferry services. Example: Post-Sandy ferry from Staten Island to start Monday: Staten Islanders are getting a temporary new ferry service.
- recovery.transportation.road: if a message reports information about the reopening of closed roads, streets, bridges and tunnels. Example: The Holland Tunnel will reopen to all commuter traffic tomorrow, 7 November, at 5 am.
- recovery.transportation.airport: if a message reports information about the reopening of airports or the restoration of normal flights. Example: LGA back up and running! #LGA #airport #hurricanesandy #aftermath # @ Terminal C (US Airways/Delta Terminal); jetblue's departures board yesterday after bringing in jfk's first commercial, post-sandy fligh @ Terminal 5; I can't believe that 3 days ago this airport was underwater... #bravo #sandycleanu @ LaGuardia Airport (LGA).

- recovery.stock: if message contains the information about stocking up on supplies after sandy.
Example: More post-Sandy stocking up!

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