



Orem City Drill 2016

After-Action Report/Improvement Plan
Thursday, September 15, 2016

EXERCISE OVERVIEW

Exercise Name	Orem City Drill 2016
Exercise Dates	Thursday, September 15, 2016 1800-2030
Scope	This exercise is a drill, planned for two and a half hours at locations around the city at block, neighborhood and area command locations and at the Orem City Emergency Operations Center.
Mission Area(s)	Response
Core Capabilities	Core Capabilities: Community Resilience, Intelligence and Information Sharing, Operational Coordination, Operational Communications
Objectives	Exercise objectives include: 1. Increase participation from the 2015 drill; 2. To account for every resident in participating areas; 3. To test established formal and standardized communications procedures and; 4 To activate the Orem EOC and receive and process intelligence reports.
Threat or Hazard	The Orem City Drill utilized an “All Hazards” approach to testing specific functions and goals. No specific hazard or threat was tested.
Scenario	Though there was never a specific scenario listed, it is widely assumed that an earthquake was the scenario for the drill.
Sponsor	The City of Orem Office of Emergency Management sponsored the drill. No grant money was used to pay for any part of the Orem City Drill 2016.
Participating Organizations	The participating organizations are: The City of Orem (Police Department, Fire Department, and Office of Emergency Management), The American Red Cross- (Central & Southern Utah Chapter) Mountain West, The Utah County Sheriff’s Office (Emergency Management), and The Utah County Health Department, Amateur Radio Emergency Services (ARES), participating Faith-based Area and Neighborhood organizations and citizen volunteers.
Point of Contact	Primary exercise POC: JoAnna Larsen, Emergency Manager City of Orem 95 East Center Street Orem, UT 84057 801-229-7146 jalarsen@orem.org

1. The title of this document is Orem City Drill 2016.
2. The information gathered in this AAR/IP is unclassified and should be handled as public information to be disclosed to any person with an interest in the contents herein. This document is intended to provide a snapshot of the Orem City Drill 2016 including points of success and gaps in the city's plans and practices. This document should be presented in its entirety and not used to distort, or amplify gaps found during the exercise. Reproductions of this document, in whole or in part, must maintain the integrity of the overall intent of the document.
3. The attached materials will be disseminated to exercise participants, city officials, and community leaders and made available to the general public.
4. Point of Contact:
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EXECUTIVE SUMMARY

The City of Orem sponsored the third annual city-neighborhood drill named the "Orem City Drill 2016" (hereafter called "Drill 2016", or "the exercise"). The exercise was conducted on Thursday, September 15, 2016 and included the following participants: City of Orem Fire, Police and Emergency Management personnel, Utah County Sheriff's Auxiliary Team (SCAT) Communications Liaisons, ARES (Amateur Radio Emergency Services) Liaisons, American Red Cross-Mountain Valley Chapter, and the following Neighborhoods; Heatheridge Area, Northridge Area, Windsor Area, Hillcrest Area, Orem Area, Sharon Area, Stonewood Area, Canyon, View Area, Orchard Area, Aspen Area, Geneva Heights Area, Orem North Area, Suncrest Area (with limited participation), Timpview Area, Sharon Park Area, Cherry Hill Area, and the Sunset Heights Area.

The City of Orem's communication drill had no specific scenario, though it was assumed by many participants that an earthquake was the most likely scenario that would cause such protocols to be enacted. The exercise was a drill as it tested two particular functions; communications and accounting for citizens, and was developed by the Orem Office of Emergency Management with representation from participating Areas. The drill was developed to exercise chapter 7 (City-Stake Integration) in the City of Orem's Comprehensive Emergency Management Plan (August 2014) along with testing the following FEMA C: Capability 1-Operational Coordination, Capability 2- Intelligence and Information Sharing, and Capability 30 Operational Communications capabilities.

The exercise planning team was composed of representatives from each of the participating areas, Liaisons from the American Red Cross-Central & Southern Utah Chapter, Amateur Radio Emergency Services (ARES) Liaisons and City of Orem Emergency Management. It was decided to keep the drill sufficiently simple for Areas/neighborhoods that were participating for the first time while increasing the

complexity for those that participated in 2014 or felt ready to add more complex communications in the exercise.

The results of the drill were:

- 36,042 people accounted for 17 “Areas” (An “Area” is defined by Orem’s Neighborhood In Action Neighborhood which also matches the LDS Church “Stake” Boundaries)
- Reports arrived at the City EOC (Emergency Operations Center) by runner and by ham radio transmission in two hours and thirty two minutes.

Based on the exercise planning team’s deliberations, the following objectives were developed for the City of Orem Drill Down for Safety-2016

- Objective 1: Increase participation from the 2015 drill;
- Objective 2: To account for every resident in participating areas of the city using the Block Captain System, standardized forms and Neighborhood/Area command structure ;
- Objective 3: To test established formal and standardized communications procedures in order to ensure rapid, accurate communication and ability to coordinate between the City and area leadership during a large-scale emergency or disaster.
- Objective 4: To activate Orem’s EOC (Emergency Operations Center) and test the Center’s ability to receive and process incoming information by receiving reports by phone bank and through the established communication chain by runners and amateur radio transmission;
- Note: An intention of Emergency Management in developing the drill is to lay the foundation for future exercises and real-world events for the citizens of Orem to be able to conduct a rapid assessment and work with Emergency Management to build a common operating picture, from which to make critical life-saving decisions.

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

Major Strengths

The Orem City Drill 2016 had some major improvements resulting in major strengths from the 2015 drill. Most notably was the increased number of participants and residents accounted for (27,336/2105-36,042/2016). Another major strength was the EOC operations with a smooth flow of information, clear role identities and leadership, and regular, organized briefings scheduled, announced and held. An additional major strength was the standardization and consistency of forms which was a major finding from the 2015 drill.

Independent Evaluation Findings

- StartEx and EndEx on time
 - StartEx 18:00
 - EndEx 20:32
- Standardization and consistency of forms much improved since last year’s exercise
- Reports included people with functional and access needs (at risk)

- Regular organized briefings were scheduled, announced, and held
 - 1755 first briefing
 - 1837 second briefing
 - 1905 third briefing
 - 1933 fourth briefing
 - 2031 fifth briefing
- Ham radio worked well
 - Clear messages
 - Good ham radio reporting from field to EOC
- Community participation and buy-in improved
 - 36,042 people accounted for 2016
 - 27,336 people accounted for 2015
- Lots of pre-event signage throughout Orem
- **Standardization of forms**
 - Much improved since last year's exercise

Documentation was consistent and standardized, much easier to collate

Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in the City of Orem's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Emergency Operations Center
 - Time runners arrived at EOC was not recorded
 - Documentation from runners was not saved for future review.
 - Have printed instructions available for those handling phone calls in the EOC
 - EOC staff positions were posted on the tables, but most people were not at the table, so some type of identifier of position should be worn (vest, badge, etc.)
- Phone operators expressed the need for written instructions (cheat sheets) to operate phones correctly and to give correct messages
- Publicize to the community the need for cell phone users to opt in to Everbridge
- One neighborhood with high number of Spanish speakers did not seem to be clear on what was going on – add flyers or media posts in Spanish
- **Safety First**– use buddy system for runners
 - **Children especially need to have a buddy if they are used as runners**
- Follow up to increase Everbridge sign up for cell phone users and texting
- Make sure Everbridge messages give clear instructions to the public
- Keep working toward participation by all areas
- One evaluator suggested making the elderly a priority group
 - Adopt a flag/triage sign system to quickly show which houses need immediate help
 - Training twice a year
- Still need to emphasize it is a community exercise inclusive of all residents and make sure publicity gets to residents not of the dominant faith
 - Consider using Facebook and other media options
 - Consider using schools and senior centers for publicity

Exercise Summary and Observations

Exercise Efficiency and Start Time

- Consistent and thorough check in of players
- StartEx on time at 1800
- Sirens and horns throughout community 18:00 – 18:05
- Everbridge message was successfully sent
- After receiving the Everbridge call some community members called the EOC directly instead of going through the block – neighborhood – area reporting chain

Safety Issues – ongoing issue

- Some children on bicycles were not wearing helmets
- Some block captains went door to door to check on neighbors – should be in pairs
- Many runners to districts and Stake Centers were alone
- Children were used as runners – responsible buddy needed
- **Safety First/Buddy System**

Emergency Operations Center

- Command was established at 1800 and scaled to fit the incident
- Logical system set up using four quadrants to organize city response and reporting
- Was not easy to identify who was in what position at the EOC
- Good use of maps, charts, and whiteboards to organize data
- Check in at the EOC was organized and thorough
- Check out was not consistent
- Good collaboration in the EOC

Communications/ Speed and Accuracy

- Faith based terminology was confusing to some and not appreciated by some – use terminology that is neutral and familiar to all
- Excellent use of a call center to disseminate information to the public
- Good phone etiquette on phone bank
- Successful use of Everbridge system to get message to public
- Good use of redundant communications systems
 - Runners
 - Radios
- Good ham radio reception in EOC
- Ham radio channels were designated ahead of time and used successfully
- Some squelching issues with radios
- All neighborhoods checked in with areas by 19:15

Publicity

- Church flyers got a lot of church members involved
- Signs were visible and widespread
- Invitations in brochures, bulletins, emails, flyers on doors
- Make sure neighbors not of the dominant faith are fully informed
 - Sensitive use of church terminology
 - Emphasize the community wide nature of the exercise more than church activity side

Documentation

- Forms were more standardized this year
- Documents asked residents about special needs
- City forms were used
- Documents were clear and orderly

The Orem City Drill-2016 added to the established baseline of the 2015 drill, testing the City of Orem’s ability to account for and communicate with residents through established protocols. Additionally Orem citizens practiced conducting a rapid assessment of their neighborhoods and communicating information gained through Neighborhood/Area leadership to the City EOC (Emergency Operations Center). Overall, the Orem City Drill-2016 showed improvements to the 2015 drill, but, as expected from such a massive endeavor, gaps remain that need to be addressed. Though gaps were found, it is believed that the City of Orem is much more prepared to deal with a large-scale disaster having planned, trained and exercised with the residents of the city.

The Orem City Drill is planned to be a yearly activity, building on previous drills to address gaps in the system, improving on speed and accuracy of information, adding complexity slowly as gaps are identified in order to bolster the readiness and resilience of the city as a whole with the goal to save lives, stabilize events, alleviate suffering of our citizens and return to “normal” or a “new normal” as quickly as possible. Going forward, the following areas of focus will become important in creating a more resilient city: adding two-way communication for better coordination among all sectors of leadership in the city, developing the ability to use redundant communication, adding in layers of accountability in order to address span of control issues, involving schools and the business sector in planning and exercises, addressing the planning for residents with functional and access needs and including all Faith-based organizations in the planning for and exercising of emergency plans.

ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Increase participation from the 2015 drill	Operational Coordination		S		
To account for every resident in participating neighborhoods using established system, standardized forms and Area command structure	Community Resilience		S		
To test established formal and standardized communications procedures in order to ensure rapid, accurate communication and ability to coordinate between the City and Area leadership during a large-scale emergency or disaster.	Operational Communications		S		
To activate Orem's EOC and test the	1. Operational Coordination		S S		

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Center's ability to receive and process incoming information by receiving reports by phone bank and through the established communication chain by runners and amateur radio transmission.	2. Intelligence and Information Sharing 3. Operational Communications		S		
<p>Ratings Definitions:</p> <ul style="list-style-type: none"> • Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified. • Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s). 					

Table 1. Summary of Core Capability Performance

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement.

Objective 1: Increase participation from the 2015 drill

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability: Operational Coordination

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: The number of participants and people accounted for increased by 8,706. The increased participation in the annual drill means more residents are familiar with their role in response immediately following a disaster.

Strength 2: Operational coordination is strengthened by the number of participants as they are the eyes and ears on the ground that, through their reports and observations, identify needs and issues that add to the common operating picture in Orem.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement: Though the operational coordination has been strengthened through three consecutive years of practicing for a disaster in the City of Orem, there are still a significant number of people who have not participated and do not know where they fit in the overall response to a disaster in Orem. The recommendation of this report is to strengthen outreach efforts and educational opportunities during the preparation for the 2017 Orem City Drill

Objective 2: Account for every resident in participating neighborhoods using established system, standardized forms and Area command structure

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability: Community Resilience

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Thirty seven six thousand forth two people were accounted for in the 2016 drill.

Strength 2: Consistency, standardization and ease of use of forms improved significantly over the 2015 forms. A standardized command structure was adopted and used throughout the city.

Strength 3: Operational coordination is strengthened by the number of participants as they are the eyes and ears on the ground who, through their reports and observations, identify needs and issues that add to the common operating picture in Orem.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement: Improvement needs to be made in the number of people accounted for after a disaster. This will improve as future drills are performed and more residents are reached, trained and participate.

Objective 3: Test established formal and standardized communications procedures in order to ensure rapid, accurate communication and ability to coordinate between the City and Area leadership during a large-scale emergency or disaster.

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability: Operational Communications

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Formal and standardized communications procedures were followed at every level of command ensuring rapid and accurate communication and coordination. Runners were utilized and Amateur Radio communications provided good reporting from the field in a timely manner. The entirety of the exercise took 2 hours and thirty-two minutes to account for residents and report from the block level to the city. Messages were clear and consistent in format.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement: Forms and chains of communication will be reviewed again before plans for the 2017 drill are formalized in order to tweak any minor issues that are needed. Additionally, additional training on procedures and forms should be done before the 2017 drill.

Objective 4: Activate the Orem Emergency Operations Center (EOC) and test the Center's ability to receive and process incoming information by receiving reports by phone bank and through the established communication chain by runners and amateur radio transmission.

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability: 1. Operational Coordination, 2. Intelligence and Information Sharing, 3. Operational Communications

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: The Orem Emergency Operations Center (EOC) activated using an ICS structure of command. Professional responders and volunteers filled positions in the EOC. Clear communication was established and practiced by the Incident Commander with regular, scheduled and organized briefings.

Strength 2: Check in areas for runners were established using a mirror of the quadrant system used for amateur radio transmission. Amateur radio quadrants were well established and followed. Amateur radio transmissions were clear and standardized.

Strength 3: A phone bank was established with publicized numbers for any residents who wanted to check in and didn't know where to check in or could not leave their homes.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement: Additional practice in an EOC setting will have a positive effect on making slight improvements in working in an Emergency Operations Center setting. Additionally providing more training and outreach to the community will improve participants' understanding of appropriate check-in procedures and locations, allowing more home-bound and functional & access needs individuals access to available phone lines.