



# City of Orem Drill 2017

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After-Action Report/Improvement Plan  
Thursday, September 14, 2017

## EXERCISE OVERVIEW

<b>Exercise Name</b>	Orem City Drill 2017
<b>Exercise Dates</b>	Thursday, September 14, 2017 1800-2030
<b>Scope</b>	This exercise is a drill, planned for two and a half hours at locations around the City of Orem. These locations are at the block, neighborhood and area command locations and at the Orem City Emergency Operations Center.
<b>Mission Area(s)</b>	Response
<b>Core Capabilities</b>	Community Resilience, Intelligence and Information Sharing, Operational Coordination, Operational Communications
<b>Objectives</b>	Exercise objectives include: 1. Increase participation from the 2016 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.
<b>Threat or Hazard</b>	The Orem City Drill utilized an “All Hazards” approach to testing specific functions and goals. No specific hazard or threat was tested.
<b>Scenario</b>	An earthquake hit the City of Orem at 1800.
<b>Sponsor</b>	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 2017.
<b>Participating Organizations</b>	The participating organizations are: The City of Orem (Police Department, Fire Department, and Office of Emergency Management), The Utah County Sheriff’s Office (Emergency Management), and The Utah County Health Department, Amateur Radio Emergency Services (ARES), City of Orem CERT, Provo City CERT, participating Faith-based Area and Neighborhood organizations and citizen volunteers.
<b>Point of Contact</b>	Primary exercise POC: Heath Stevenson, Emergency Manager City of Orem 95 East Center Street Orem, UT 84057 801-229-7146 <a href="mailto:hmstevenson@orem.org">hmstevenson@orem.org</a>

1. The title of this document is Orem City Drill 2017.
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 2017 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:  
Exercise Director: Heath Stevenson  
Title: Emergency Manager  
Agency: City of Orem  
Address: 95 East Center Street Orem, Utah 84057  
Contact information: Office Number: 801-229-7146 Email: hmstevenson@orem.org

## EXECUTIVE SUMMARY

The City of Orem sponsored their annual city-neighborhood drill named the "City of Orem Drill 2017" (hereafter called "the exercise"). The exercise was conducted on Thursday, September 14, 2017 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, and the following Neighborhoods; Aspen, Geneva Heights, Orem North, Sharon Park, Suncrest, Timpview, ~~Cherry Hill, Lakeview~~, Orem Park, Sunset Heights East, Sunset Heights West, Canyon View, ~~Cascade~~, Heatheridge, Northridge, Orchard, Windsor, Hillcrest, ~~Lakeridge~~, Orem, Sharon, and Stonewood Areas.

The City of Orem's communication drill scenario was that an earthquake hit at approximately 1800, which caused the city communication 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, 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 2016 or felt ready to add more complex communications into the exercise.

The results of the drill were:

- 36,900 people accounted for 18 "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 twenty minutes.

Based on the exercise planning team's deliberations, the following objectives were developed for the City of Orem Drill 2017:

**Objective 1:** Increase participation from the 2016 drill.

**Objective 2:** To account for every resident in participating areas of the city using the Block Captain System.

**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 City of Orem Drill 2017 had some major improvements resulting in major strengths from the 2016 drill. Most notably was the increased number of participants and residents accounted for (25,797/2016-36,900/2017). Another major strength was the EOC operated 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. The forms were once again a major finding during the 2016 drill. The forms were once again updated and consolidated to one organized page and well received throughout the Areas.

### Independent Evaluation Findings

- Start of Exercise and End of Exercise on time
  - Start of Exercise: 1800
  - End of Exercise: 2020
- 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
  - 1750 briefing
  - 1830 briefing
  - 1900 briefing
  - 1920 briefing
  - 1940 briefing
  - 2000 briefing
  - 2015 briefing
- Ham radio worked well
  - Clear messages
  - Good ham radio reporting from field to EOC
- Community participation and buy-in improved
  - 36,900 people accounted for 2017
  - 25,797 people accounted for 2016
- 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 due to making all the reporting on one sheet.

## 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:

- Publicize to the community the need for cell phone users to opt in to Everbridge
- **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
- 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
- How to better account for apartments.
- Safety was an issue. There were multiple reporting parties that didn't come with a buddy. From block captain, to runners, to neighborhoods, to areas, the buddy system lacked.
- How to improve the lack of participation among city members.
- A time column needs to be added to the tally sheet/report for logging purposes.
- Clear definition for unaccounted for people.
  - Missing people vs people just not at home.
- We had multiple people report in as households/units. Need to come up with an average person per home/unit per area to substitute in place of home or unit.
- How to quickly update status and check in with UVU during an incident.
- We're only as good as our statistics. If we get poor or inaccurate data, this is not worth anything. At the city level, where's the real focus supposed to be? Thinks it'd be more important to know what IC's going to do with information of who's accounted for and who is not. Add an action item or a next step.
- Communication to Orem residents needs to be on a City level, not Church level. Block Captains need to let people know they are assigned by the City.
- Re-arrange the setup of the EOC so that phones are in a more quiet area. Hard to hear.
- Generator for backup power purposes in the EOC.

## 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.

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.

- 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.
- Good use of redundant communications systems.
- Good ham radio reception in EOC.
- Ham radio channels were designated ahead of time and used successfully.
- Some squelching issues with radios.

#### 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 and organized to one sheet this year.
- City forms were used.
- Documents were clear and orderly.

The City of Orem Drill 2017 established the baseline of the 2016 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 City of Orem Drill 2017 showed improvements to the 2016 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 City of Orem 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 2016 drill.	Operational Coordination		S		
To account for every resident in participating areas of the city using the Block Captain System.	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 (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.	Operational Coordination Intelligence and Information Sharing Operational Communications		S S S		

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
<p><b>Ratings Definitions:</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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).</li> </ul>					

**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 2016 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 11,103. 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 multiple years of practicing for a disaster in the city of Orem, there is 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 2018 City of Orem 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:** 36,900 people were accounted for in the 2017 drill.

**STRENGTH 2:** Consistency, standardization, and ease of use of forms improved significantly over the 2016 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 the 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 two hours and twenty minutes to account for residents and report from the block level to the city. This was approximately 15 minutes quicker than 2016. 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 2018 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 2018 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) was 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. The EOC positions will have staffing assignments made prior to the 2018 City of Orem Drill. 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.

# Improvement Plan

**This IP has been developed specifically for the city of Orem as a result of the City of Orem Drill 2017 conducted on September 14, 2017.**

Please view the full IP spreadsheet [here](#).

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Area for Improvement	Corrective Action	Capability Element* (Planning, Organization, Equipment, Training, or Exercise)	Primary Responsible Organization	Point of Contact	Start Date	Date Completed
Core Capability 1: OPERATIONAL COORDINATION	1. Area for Improvement - Though the operational coordination has been strengthened through multiple years of practicing for a disaster in the city of Orem, there is 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 2018 City of Orem Drill.	Conduct more trainings on how to sign up for Everbridge.	Orem Emergency Management	Heath Stevenson	September 2017	Ongoing
		Plan more ways to get the alerts.orem.org sign up page out to the public.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018
Core Capability 2: COMMUNITY RESILIENCE	1. 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.	Plan more ways to get the alerts.orem.org sign up page out to the public.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018
		Provide more trainings on the captain process.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018
Core Capability 3: OPERATIONAL COMMUNICATIONS	1. Area for Improvement - Forms and chains of communication will be reviewed again before plans for the 2018 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 2018 drill.	Provide more trainings on the drill, as well as, the block captain process.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018
			Orem Emergency Management	Heath Stevenson	January 2018	September 2018
Core Capability 4: 1. OPERATIONAL COORDINATION, 2. INTELLIGENCE AND INFORMATION SHARING, 3. OPERATIONAL COMMUNICATIONS	1. 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. The EOC positions will have staffing assignments made prior to the 2018 City of Orem Drill. 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.	The EOC positions will have staffing assignments made prior to the 2018 City of Orem Drill.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018
		Provide more trainings on the drill, as well as, the block captain process.	Orem Emergency Management	Heath Stevenson	January 2018	September 2018