

***BASICS OF DRILLS AND  
EXERCISES***



**A training course for REACT Teams and members**

This is a new REACT course designed to give every REACT member a basic understanding of what he or she is going to experience during training exercises and drills, whether run by a REACT Team, REACT International, or the agencies we support, so that you will be able to get the most out of your volunteer time.

Author: Walter G. Green III

Course Number: 111

Copyright 2017 by REACT International, Inc. All rights reserved.

REACT International, Inc.  
P.O. Box 21064, Glendale CA 91221  
e-mail: [Training@REACTintl.org](mailto:Training@REACTintl.org)  
(866) 732-2899 / Toll Free (US Only)  
(301) 316-2900 / International  
(800) 608-9755 / Fax

## Table of Contents

	Introduction	Page 4
I.	What Is An Exercise?	4
II.	Types of Exercises	4
III.	Ahead of Time	7
IV.	The Exercise Process	8
V.	Public Service Events As Exercises	12
VI.	Continuous Improvement	12

## INTRODUCTION

Why are we offering a course on the basics of exercises and drills? Exercises and drills are key training tools to develop your own skills as a communicator and the ability of your team to work effectively as part of the overall response to a major emergency or disaster. Exercises are complicated events, and if you do not know what to expect, you can easily become confused and overwhelmed by the event. This course is designed to give every REACT member a basic understanding of what he or she is going to experience during this type of training so that you will be able to get the most out of your volunteer time.

### I. WHAT IS AN EXERCISE?

An exercise is a simulation of reality in which participants are expected to react to the scenario and to events in the same way that they would in a real emergency or disaster. Exercises are conducted for two basic purposes: (1) training people and systems (2) and testing and evaluating training, plans, procedures, resource capabilities, and overall readiness. Although we talk informally about “playing” in an exercise, in reality exercises are important events in the life of any organization that has emergency response role, and participants should take their roles with the same seriousness as in the real thing.

### II. TYPES OF EXERCISES

There are a wide variety of exercise types, varying in their complexity and degree of realism. For the purposes of REACT, your Team’s exercise program may include:

#### DISCUSSION EXERCISE

Definition: An informal exercise conducted to familiarize Team members with their roles in a major emergency, the basic response process, other participating organizations, the impacts of major events on the community, Team emergency operations plans and procedures, etc. This is often the start of a Team’s exercise training program.

Participants: Typically members of your Team. Inviting a representative of an organization you support may be very useful to get the organization’s perspective.

How exercise is conducted: One Team member serves as a moderator, introducing the exercise focus, scenario (if one is used), and objective, and guiding discussion by a preliminary statement and a series of questions. If plans and

procedures are the focus, Team members should have copies of these documents and be guided through the appropriate sections. Team members participate in the discussion to better understand the topic, to explore alternatives, to identify general Team roles and capabilities, etc. The focus is on the whole Team, not on individual duties.

Time required: One to two hours.

Realism: Realism is low, at most a basic scenario to serve as the focus for a discussion. Stress is very low.

## **TABLE TOP EXERCISE**

Definition: An exercise conducted in a meeting or training room with participants playing the roles they would be assigned in an actual event. The focus is on arriving at courses of action to deal with the emergency impacts through discussion and coordination and the application of standard plans and procedures.

Participants: Typically members of your Team, although you may be invited to take part in other organizations' tabletops.

How exercise is conducted: An exercise controller provides the scenario to participants and makes injects based either on scheduled times or when participants have arrived at the course of action for the previous problem. Typically one problem at a time is addressed.

Time required: Typically 1 to 4 hours based on the number of participants and the complexity of the scenario.

Realism: Realistic elements start to be introduced, including a scenario and events in the form of inputs. Stress is low.

## **DRILL**

Definition: An exercise involving only one component of a response system, usually centered on one specific activity of that component's role. For example, a REACT Team (part of the emergency communications component for a town) might practice deploying a Type IV communications strike team to a high point to relay information from a disaster site to the emergency operations center.

Participants: Typically members of your Team, although you may be invited to take part in other organizations' drills.

How exercise is conducted: The drill typically focus on how to perform one task that will be required in an emergency. An exercise controller provides the basic scenario and the required task, and Team members carry out that task.

Time required: Typically 30 minutes to 4 hours.

Realism: Realism is elevated. Stress may be moderate for some participants.

## **FUNCTIONAL EXERCISE**

Definition: An exercise that focuses on the activities of a component of a response system and that exercises all of the typical activities of that component, without the requirement to move actual resources. It differs from a drill in the scope of activities required.

Participants: Members of one or more organizations that perform a specific function, such as the staff of an emergency operations center or emergency communications personnel.

How exercise is conducted: Normally the exercise is managed by a control staff with evaluators, observers, and simulators. Injects are provided through a variety of means that simulate actual information flow in a disaster, including actual radio transmissions and telephone messages. Participants work as the staff of their functional component to resolve multiple and sometimes simultaneous problems.

Time required: Typically 2 to 4 hours.

Realism: Realism is elevated. Stress is elevated.

## **FULL SCALE EXERCISE**

Definition: An exercise requiring participation of all major components of a response system from field units to the emergency operations center. It includes actual movement of response and support resources and the application of actual skills to control the hazard in the scenario. Full scale exercises will normally be community based, with a REACT Team performing its function as part of the communications system as defined by a memorandum of agreement. Because of their size and resource requirements, full scale exercises tend to be held several years apart.

Participants: Typically multiple volunteer organizations and governmental agencies from one or more jurisdictions, including primary emergency response and supporting organizations.

How exercise is conducted: Normally the exercise is managed by a control staff with evaluators, observers, and simulators. The scenario is often designed to provide tasks for all of the participating agencies, and may include wrecked vehicles or simulated damaged buildings or other actual equipment. Injects are provided through a variety of means including simulated casualties, actual radio

transmissions, telephone messages, witnesses, etc. Participants perform the actual management tasks or physical work that they would perform in an emergency.

Time required: Typically from 4 hours to multiple days.

Realism: Realism is high with a full scenario, multiple inputs as messages, witness reports, physical effects, etc. Stress is high. The potential for accidents is high.

## **REACT INTERNATIONAL INTERNET EXERCISES**

Definition: Exercises conducted as Drills or Functional exercises using Internet based voice or e-mail communications to train, develop, and evaluate REACT's operational capabilities.

Participants: Teams participate in these exercises, both with a representative completing the tasks assigned by the injects, and by using the exercise scenario as the basis for discussion or tabletop exercises at a meeting after the online event.

How exercise is conducted: Scenario information and injects are distributed by e-mail or by voice on the REACT Traffic net on Zello. Teams complete assigned tasks by formatted messages or use of online data entry forms.

Time required: one to two days based on the scenario and the time zone spread of the exercise, although the actual participation by any team may be relatively brief.

Realism: Realism may vary from low to elevated with a scenario and either simple or complex inputs and from no coordination requirements to response to tasking and coordinated action with other Teams. Stress will range from low to elevated for some participants.

### **III. AHEAD OF TIME**

To participate successfully in an exercise, there are a number of things that you and your Team should do in advance of the start of the exercise:

1. Be involved with your supported organizations. Regularly touch base and know what they are doing, including when they are running exercises or drills in which you can participate. Ensure that you have a current memorandum of agreement that clearly spells out what you are going to do for each organization, when you are going to do it, and how much of it you are going to do for how long.

2. Have an active team training program. Everyone should work to complete the four basic Federal Emergency Management Agency independent study courses: IS-100, IS-200, IS-700, and IS-800. Complete the REACT courses required for your emergency communications resource type. The Training Committee has a current list of training that we recommend for all members. If you are not trained to do the job, you will not be issued REACT credentials to do the job, and other agencies will not call for you when bad stuff happens.
3. Maintain your equipment in good condition, ready to activate at a moment's notice. If you have a deployment role, maintain your basic supplies for deployment as an available ready kit.
4. Have a current Team alerting roster, standard operating procedures, and emergency operations plan.
5. Know who your people are, what their qualifications and capabilities are, and when they are typically available.

You will not need all of these in every exercise. For example, in a discussion exercise you may only need your current emergency operations plan and your standard operating procedures. In a drill, you will need training, your equipment, and your standard operating procedures. But in a city or county full scale exercise, you will need to have all five of these elements well in hand.

## IV. THE EXERCISE PROCESS

The following description of the exercise process is simplified.

Depending on the complexity and the scope of an exercise, planning may start a year or more in advance. Planning for major Federal government exercises may start as much as two years in advance. The process of planning is based on:

Identification of the purpose of the exercise and its core objectives. The typical purposes are (a) training and qualification of members or (b) testing and evaluating plans, procedures, and individual and Team performance. Objectives should be specific and measurable. For example, an exercise to evaluate procedures might have as an objective “determine whether the team’s fixed base monitoring radio stations are activated within 2 hours of the initial alert.”

Selection of the best type of exercise to meet the purpose and objectives. The best type may be determined by previous exercise and actual event experience of the organization or the community, by available time, by available resources, by financial constraints, etc. For example, holding a full scale exercise to train in



deploying your Team across the country in a catastrophic disaster would immediately run into a wide variety of practical constraints, the cost of airline tickets being an obvious one. But a one hour discussion exercise to examine whether making such a deployment is possible might be a valuable tool in identifying the limits of the Team's capabilities.

Determining the schedule. How frequently you exercise depends on what your Team's activity level is and what your purpose is. If you routinely respond to four or five major emergencies in the summer months, you probably don't need to exercise during that period. However, running a tabletop and a drill in the off season would be useful to address problems experienced during the actual events and to test how well you have integrated the lessons learned into your procedures. On the other hand, if your team rarely responds to major events, a combination of a discussion, a tabletop, a drill, and a functional exercise over 18 months is probably a good scheduling choice.

*A note:* Don't forget to include community exercises and those done by the agencies you support. If you have a number of amateur radio operators in your Team don't overlook Field Day or working with your county/city Amateur Radio Emergency Services (ARES) organization to be included in the annual Simulated Emergency Test (SET). And consider participating in The Great Shake Out international earthquake drill or the local tabletop exercise series Formidable Footprint, especially if you support the local Community Emergency Response Team (CERT) organization.

Basic planning is followed by development of the actual exercise. In general, what happens in an exercise is driven by:

A scenario that sets the stage by describing the what, where, when, why, and who of what has happened or is about to happen as a major emergency or disaster, as well as what resources are available to deal with it. This can be a handout for participants to read and use as a reference or it might be in the form of the briefing normally given at the start of the operations shift in an event.

Injects (also called inputs) that describe tasks that must be accomplished, or further impacts of the disaster, or changes in conditions, or the arrival of additional resources, etc. These occur during the play of the exercise. Injects may come as radio or simulated telephone calls, messages, announcements, or any other way that the might happen in real life.

A sequence of events that tells the individual running the exercise when each inject should be made, either based on time or based on the actions of the exercise participants.

Then the exercise is conducted. The actual form of the exercise depends on:

The exercise type that has been selected.

What objectives have to be met. For example, if testing your alerting system is not one of the objectives, it may be included as part of the scenario, and not actually practiced. But if alerting is an objective, participants should be alerted using your standard procedures, even if everyone is aware that the tabletop exercise will be conducted at 7:00 pm as part of your regular meeting.

Whether the exercise is for training or for testing. If the exercise is conducted to do training, Team meetings before it is held should include training sessions that cover the skills needed, along with tracking which members have completed Federal Emergency Management Agency or REACT training courses. On the other hand, an exercise to test capabilities is very much a come as you are affair.

The scenario. A simple scenario with only a few injects makes for a short exercise, and possibly a lower stress one. A complicated scenario for a large event with many injects drives a longer exercise with higher stress and even some tasks that the participants cannot complete.

The available staff. Exercises require as a minimum that one Team member serve as a controller. This job may be as simple as a discussion facilitator or require managing the flow of multiple injects and tracking the best timing for each. In a small team, the controller may actually participate in the exercise. However, if you are going to provide injects by radio or telephone, you may need a second controller not in the same room as the participants. Large full scale exercises may require a control staff of a dozen or more people.

Time. Events may happen faster than they would in real life, either because the time available for the exercise is limited, or to increase the stress on the participants. However, time compression should generally be managed so that there is sufficient time to complete tasks (unless the participants are a well-trained team with considerable experience in events of the same type and used to working together under stress).

Experience. The complexity and stress of an exercise should be tied to the level of experience and training of the participants. For the first exercise ever one or two tasks of a simple nature with very detailed instructions may be exactly what is needed. On the other hand an experienced team might need a rapid paced, complex exercise that pushes the team members to their limits. Getting there takes time, perhaps even years of progressively more difficult events.

Some types of activities are inappropriate. Avoid making these mistakes:

Unrealistic scenarios, especially unrealistic scenarios with problems that cannot be solved. Is it remotely possible that a spaceship with 200 aliens aboard will crash land on top of a school bus at a grade crossing where a train derails dumping 200 tank cars full of methyl-ethyl death into the local river poisoning everyone downstream for 100 miles? Well maybe, a 1 in 1 billion chance. But your REACT Team is not going to solve that one by itself.

Safety. Drills, functional exercises, and full scale exercises may have opportunities for someone to hit a power line while putting up an antenna, someone to be hit by an emergency vehicle, etc. If you are doing actual tasks, have a safety officer whose job it is to recognize and stop hazardous situations.

Starting too big. A big exercise with many parts requires experience to design and experience to participate in and achieve good training. If your community is planning a large multiple agency full scale exercise, and you are invited, make sure you either have done this before, or immediately lay on a series of discussion to tabletop to drill to make sure you understand your role and your people will not be overwhelmed.

No notice exercises. REACT International publicizes its exercises 3 months in advance in the training column in *The REACTer* and distributes detailed instructions 14 days or more (depending on the complexity of the event) before the start. Team exercises should follow similar guidelines. No notice exercises should only be done by Teams that are highly experienced and well trained in the objectives of the exercise.

Night exercises. Moving equipment and people at night and doing physical tasks in a dark environment is hazardous. Don't do this unless you are doing things that are very familiar, your team is experienced and used to working together, you have safety officer, people have reflective gear, and key players have walked through the problem in advance.

Running exercises without telling people it is an exercise. Real emergencies cause people to drive too fast, to run instead of walk, to not pay attention to basic personal safety, to tunnel vision on the problem – all because someone is in trouble, and we are the only people who can save them. All exercises must be identified as an exercise. If someone says that doing that makes it unrealistic and you have to respond for real to get any training value, don't listen to them - they are both simply wrong and an accident waiting to happen.

## **V. PUBLIC SERVICE EVENTS AS EXERCISES**

Your Team may or may not do public service events as part of its normal activities. These events can serve as functional exercises providing useful training in your emergency communications plans, procedures, and skills. However, to do so they require some thought and planning. Key factors that increase their training value include:

Use the incident command system to manage your actions. Federal Emergency Management Agency independent study courses IS-100 and IS-200 provide a good orientation to the Incident Command System (ICS). You get to be good at using ICS by practicing using ICS at every opportunity. Why do you care? You care because ICS is the national standard for how emergencies are managed, and mandated by the Department of Homeland Security.

Use your standard plans and procedures, exactly the way you would use them in the big one.

Practice good protection of personal and sensitive information. REACT has a short course covering this topic that every communicator should complete.

Use as much of your communications capabilities as possible. Do voice, transmit data, send reports to your regional director and REACT International through our traffic system, deploy your trailer, put up an antenna, make sure all your handhelds are working, etc.

Do public service events that are tied to REACT's primary mission, emergency communications. Yes, helping to clean up a partly abandoned cemetery in your community, feed people at a homeless shelter, park cars at a football game, etc., may be good things to do, but any communicating you do is secondary to the task. These are not things that are your primary mission in a major emergency or disaster. If you end up doing these in a disaster, it is a judgment by the authorities that your team is part of a untrained volunteer labor pool, not an essential communications resource.

## **VI. CONTINUAL IMPROVEMENT**

Once the exercise runs its course the next step is to conduct a hot wash and develop an after action report (AAR). These two efforts capture the key learning points by identifying things that need improvement and things that worked well and that need to be a permanent part of your Team's responses. This makes an exercise part of the continuous learning and continuous improvement process for your Team.

The hot wash should be conducted immediately after the exercise has been completed. A member appointed as moderator:

- ... reviews the key events in the exercise to make sure that there is a common understanding of what happened.

- ... asks for participants to identify problem areas and possible solutions.

- ... asks for participants to identify success stories and how these can be incorporated into the Team's standard procedures.

- ... asks for any other issues that the exercise raised for the Team members.

- ... notes problems and successes for incorporation in the after action review.

The hot wash is a no-ego event. All should understand that comments are not criticisms of individuals. Rather they are opportunities to develop solutions that will help the Team be more effective.

The AAR is composed by a Team member assigned this responsibility. There are a number of formats, but in general an AAR should include:

- ... the basic details, name of the event, dates and times,

- ... the objectives of the exercise,

- ... a synopsis of the scenario, the injects, and the flow of the exercise.

- ... problems and successes noted, along with suggested solutions, from the hot wash,

- ... other relevant comments, and

- ... actions required to improve the Team's performance, who is responsible for these, and when they should be completed.

Copies of the after action report should be made available to all Team members, and Team officers should ensure that the needed corrective actions are accomplished. The AARs serve as a record of what has been done and what needs to be done that should be regularly reviewed by the Team's training officer.