## **Shakeout Winlink Exercise, October 19, 2023**

Exercise ID: 2023SHAKEOUT



## **Table of Contents**

Scenario	1
Objectives	2
How to Send a Winlink DYFI Report	2
Example Winlink DYFI Form Entries for SHAKEOUT (Intensity Level 5)	4
Winlink DYFI Form Entries	6
WHO GETS THE MESSAGE?	8
Submitting the Report.	9
Send message!	10
ShakeOut Resources for Exercise Participants:	11
RATPAC	11
WaveTalkers	11
Shakeout and USGS Resources	11
Register Your Group/agency with ShakeOut	11
Modified Mercalli Scale	12
Acknowledgements	13

#### Scenario

On October 19, at 10:19 AM your local time an earthquake with  $\underline{\text{Modified Mercalli}}$   $\underline{\text{Intensity 5+}}$  rocks your area.

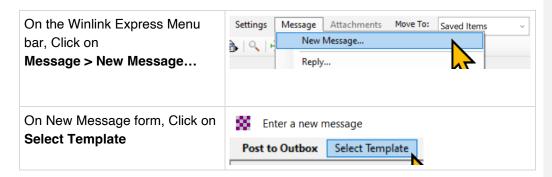
Please use the Winlink Express to send a USGS DYFI Exercise report with Exercise ID: 2023SHAKEOUT to USGS.

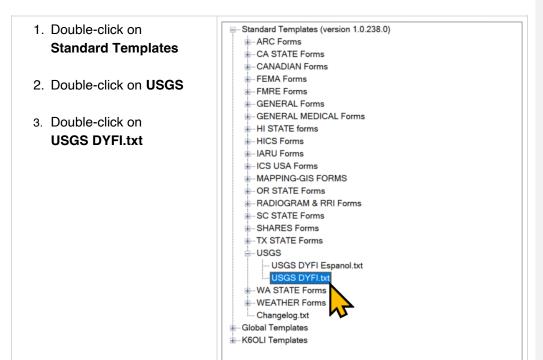
## **Objectives**

- Send a Winlink DYFI report to USGS and tactical address, QUAKE-23, within 1 (one) hour of the earthquake at 1019 your local time.
  - Note: It is okay to send your DYFI report later in the day. Some radio operators send their reports after work, for example. But please ensure that your time is 10:19 on the report, regardless.
  - We coordinated the Exercise ID 2023SHAKEOUT with USGS to make Shakeout reports easy to identify. Please use it!
- Use RF if you can, but Telnet is okay, too.

## How to Send a Winlink DYFI Report

Note: Please also ensure that your Winlink Express is a current version. The version number is in the top left of the main window. Example: Winlink Express 1.7.9.1. Form updates are very important as well, and also update, automatically.



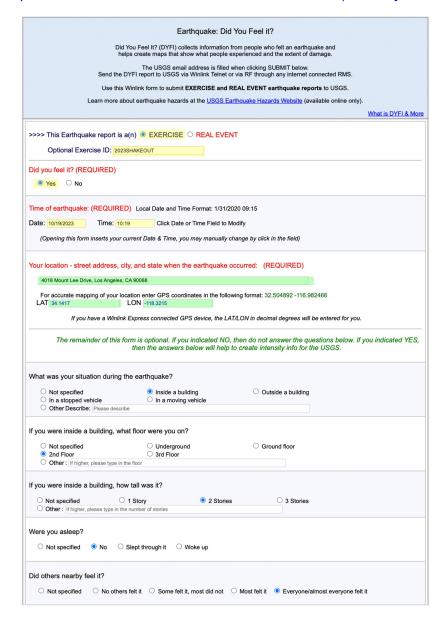


# After double clicking on USGS DYFI TXT, the report below will appear in your web browser.

Fill out the form as shown in the example below if you wish to use the minimum default values of a Level 5 Intensity. Items highlighted in YELLOW should be entered as noted below.

Lastly, regardless of when you fill out the DYFI report, please set the **Date** and **Time** to **10/19/2023**, at **1019** local time for this exercise.

## Example Winlink DYFI Form Entries for SHAKEOUT (Intensity Level 5)



How would you describe the	Shaking:		
O Not specified	O Not felt	○ Weak	O Mild
O Moderate	Strong	○ Violent	
How did you react?			
Not specified     Somewhat frightened	No reaction/not felt     Very frightened	<ul><li>Very little reaction</li><li>Extremely frightened</li></ul>	<ul><li>Excitement</li></ul>
How did you respond?			
<ul><li>Not specified</li><li>Dropped and covered</li><li>Other Describe: Please de</li></ul>	○ Took no action ○ Ran outside	O Moved to	doorway
Was it difficult to stand and/o	or walk?		
O Not specified No	○ Yes		
○ Not specified ○ No	<ul><li>Yes, slight swinging</li></ul>	Yes, violent swinging	
,	er noises?  O Yes, slight noise  O Yes, I		
Did you hear creaking or oth  Not specified  No  Did objects rattle, topple ove	○ Yes, slight noise ● Yes, I		
○ Not specified ○ No	Yes, slight noise Yes, I  Yer, or fall off shelves?  No  A few toppled or	loud noise	
Not specified No  Did objects rattle, topple ove  Not specified  Rattled loudly  Nearly everything fell off	Yes, slight noise Yes, I  yr, or fall off shelves?  No A few toppled or	loud noise	
Not specified No  Did objects rattle, topple ove  Not specified  Rattled loudly  Nearly everything fell off	Yes, slight noise Yes, I  yr, or fall off shelves?  No A few toppled or	loud noise  Rattled s  fell off Many fell	
Not specified No  Not specified No  Not specified Rattled loudly Nearly everything fell off  Not specified No  Not specified No	Yes, slight noise Yes, I  If, or fall off shelves?  No A few toppled or	oud noise  Rattled s Rattled s Many fell	
Not specified No  Not specified No  Not specified Rattled loudly Nearly everything fell off  Not specified No  Not specified No	Yes, slight noise Yes, I  or, or fall off shelves?  No A few toppled or  or get knocked askew?  Yes, but did not fall Yes  es slide, topple over, or becc	oud noise  Rattled s Rattled s Many fell	
Not specified No  Did objects rattle, topple ove Not specified Rattled loudly Nearly everything fell off  Did pictures on walls move o Not specified No  Did any furniture or applianc Not specified No	Yes, slight noise Yes, I  or, or fall off shelves?  No A few toppled or  or get knocked askew?  Yes, but did not fall Yes  es slide, topple over, or becc	oloud noise  Rattled s Rattled s Many fell Many fell s, and some fell ome displaced?	
Not specified No  Did objects rattle, topple ove Not specified Rattled loudly Nearly everything fell off  Did pictures on walls move o Not specified No  Did any furniture or applianc Not specified No	Yes, slight noise Yes, I  or, or fall off shelves?  No A few toppled or  or get knocked askew?  Yes, but did not fall Yes  es slide, topple over, or beco	oloud noise  Rattled s Rattled s Many fell Many fell Many fell President of the second	e contents fell out
Not specified No  Did objects rattle, topple ove Not specified Rattled loudly Nearly everything fell off  Did pictures on walls move o Not specified No  Did any furniture or applianc Not specified No  Was a heavy appliance (like Not specified	Yes, slight noise Yes, I  Yes, slight noise Yes, I  Yes, or fall off shelves?  No  A few toppled or  Proget knocked askew?  Yes, but did not fall Yes  es slide, topple over, or becomes  Yes  a refrigerator or range) affect  No  Yes, shifted by a	oloud noise  Rattled s Rattled s Many fell Many fell Many fell President of the second	e contents fell out

□ No damage	Hairline cracks in walls	☐ A few large cracks in walls
☐ Many large cracks in walls	☐ Ceiling tiles or lighting fixtures fell	☐ Cracks in chimney
One or several cracked windows	Many windows cracked or some broken out	it    Masonry fell from block or brick wall(s)
Old chimney, major damage or fell down	<ul> <li>Modern chimney, major damage or fell down</li> </ul>	vn $\square$ Side walls tilted over/collapsed complete
<ul> <li>Separation of porch, balcony, or other addition from</li> </ul>	m building $\square$ Building permanently shifted over foundation	on
valure of the bullding (such as building floor or neight), of	ner damages seen in your area, or any other comments you mi	ght have.
vature of the building (such as building floor or neight), on	ner damages seen in your area, or any other comments you mi	
ptional	ner damages seen in your area, or any other comments you mit	
ptional		

## **Winlink DYFI Form Entries**

Entries highlighted in YELLOW are the same for all Shakeout participants using Winlink. Entries highlighted in GREEN are user specific.

This Earthquake report is an	EXERCISE	
Exercise ID:	2023SHAKEOUT	USGS is asking that all Winlink participants use the same Exercise ID of 2023SHAKEOUT
Did you feel it?	YES	
Date:	10/19/23	
Time:	10:19	Note: time is local time
Your location:	Enter your complete street address (No P.O. Box numbers, Please)	Format example: 1234 Main St., Anytown, CA 11111, USA

GPS coordinates:  Although marked "Optional," please attempt to fill out the decimal coordinates.	Enter your latitude and longitude in decimal degrees.	4 decimals preferred, e.g. 34.1431, -118.3215  Youtube: How to check your latitude and longitude using Google Maps.
Intensity Survey Questions:	Answer as if reporting an earthquake with Modified Mercalli Intensity of 5 or higher.	Youtube: Winlink USGS DYFI Step-by-step Instructions PDF: Winlink USGS DYFI Example Answers for MMI 5 Earthquake

#### Use these settings to achieve a Default Intensity Level 5 result.

- What was your situation during the earthquake? Inside Building
- If you were inside a building, what floor were you on? 2nd Floor
- If you were inside a building, how tall was it? 2 stories
- Were you asleep? NO
- Did others feel it? Everyone/most everyone felt it
- How would you describe the shaking? Strong
- How did you react? Excitement
- How did you respond? Dropped and Covered
- Was it difficult to stand/and or walk? NO
- Did you notice any swinging of door or other free-hanging objects? Yes, slightly Swinging
- Did you hear any creaking or other noise? Yes, Loud noise
- Did objects rattle, topple over, or fall off shelves? Rattled loudly
- Did Pictures on walls move or get knocked askew? Yes, but did not fall"
- Did any Furniture or appliances slide, topple over or become displaced? NO
- Was a heavy appliance (lie a refrigerator or range) affected? NO

- Were free standing walls or fences damaged? Not specified
- Was there any damage to the building? Hairline cracks in walls

Additional comments:	Enter any additional information.
	For example, As an option, enter your agency or group name (FEMA Region 5 Winlink Net, Boone County EMA ACS, etc.) or the mode (Telnet, VARA FM or HF, Packet, PACTOR, Mesh)
EEW Survey:	Optional Earthquake Early Warning (EEW) survey (does not affect the intensity calculations). You may provide USGS with sample data, if you wish, however, not required.

ONCE you have filled out the Report, Click on SUBMIT, but first review "WHO GETS THE MESSAGE" and "Submitting the Report" (below).

Once you Submit the Form, the Intensity level will appear. Click on CONTINUE. Then close the Browser.

You will see the outgoing message. Then **Post to OUTBOX.** (For more detailed information, see the sample report on page 8)

#### WHO GETS THE MESSAGE?

Winlink DYFI Message To and CC

(VERY IMPORTANT: Please manually add the Tactical Address QUAKE-23 to the CC of the Message).

То:	dyfi_reports_automated@usgs.gov

	Note: this is the official USGS address; it is automatically filled in; leave as is please. Note: You must <b>send the report via an internet connected RMS gateway or via Telnet</b> for USGS to receive it. USGS does not monitor P2P or Radio-Only.
Cc:	QUAKE-23  Note: please add the CC addresses manually.
	<ul> <li>Explanation of (CC:) <u>This is very important:</u></li> <li>QUAKE-23 tactical address that provides your DYFI to a number of government agencies other than USGS.</li> </ul>
	You may add additional localized CC: addresses if you and your group wish to receive DYFI reports locally.

# Submitting the Report.

Once responses are complete, please  $\underline{\text{Submit.}}$  The resulting intensity level will appear, then click on  $\underline{\text{Continue}}$ .

#### Did You Feel It - Intensity

Below is an estimate of the intensity you reported from your location.

Click Continue to submit your report.

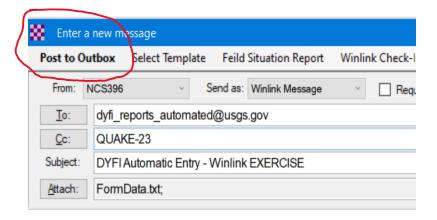
Intensity	Strength	Description
v		Felt by nearly everyone; many awakened. some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.

To complete your form submission, click Continue and close the open browser window. You will return to the new message window so you can post your message to the outbox.

Continue

Commented [sW1]:

Close your Browser, and view the message. Place the Tactical address, <u>QUAKE-23</u> in the CC: and <u>Post to Outbox</u>.



Send message!

## ShakeOut Resources for Exercise Participants:

#### Commented [sW2]:

#### **RATPAC**

Planning for the Great California Shakeout '22

#### **WaveTalkers**

Check out the WaveTalkers Shakeout presentation by Oliver, K6OLI.

#### Chapters

ShakeOut Exercise for Volunteer Radio Groups (10:15)

Survey and Respond with Winlink (16:53)

Winlink GPS Information (34:00)

Winlink DYFI Form Step-by-step Walk-through (35:34)

Mapping Received DYFI Reports Locally in Winlink (49:31)

Questions and Answers Session (53:34)

## Shakeout and USGS Resources

Commented [sW3]:

## Register Your Group/agency with ShakeOut

Although, not required, group coordinators are <u>encouraged</u> to register their volunteer group, or agency. Registration is free and ShakeOut will provide a *Certificate of Participation*.

Register here

See the other <u>Volunteer Radio Groups</u> registered for Shakeout.



#### **Modified Mercalli Intensity**

Table below shows the Modified Mercalli Intensity scale, which describes the intensity of earthquake shaking and the effects of that shaking at a given place.

Modified Mercalli Intensity (MMI) is based on human perception and traditionally designated by Roman numerals (for example, IV, V, and VI), however the ShakeAlert system uses instrumental measurements to estimate "instrumental intensity and uses Arabic numbers for example, 4, 5 and 6

Intensity	Shaking	Description
I	Not Felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings
		Felt quite noticeably by persons indoors, especially on upper floors of
		buildings Many people do not recognize it as an earthquake. Standing
		motor cars may rock slightly. Vibrations similar to the passing of a truck
III	Weak	Duration estimated.
		Felt indoors by many, outdoors by few during the day. At night, some
		awakened. Dishes, windows, doors disturbed, walls make cracking
		soundSensation like heavy truck striking building. Standing motor cars
IV	Light	rocked noticeably
0.00		Felt by nearly everyone; many awakened. Some dishes, windows broken.
V	Moderate	Unstable objects overturned. Pendulum clocks may stop.
		Folt by all, many frightened. Some heavy furniture moved; a few instances
VI	Strong	of fallen plaster. Damage slight
		Damage negligible in buildings of good design and construction; slight to
		moderate in well-built ordinary structures, considerable damage in poorly
VII	Very Strong	built or badly designed structures, some chimneys broken
		Damage slight in specially designed structures; considerable damage in
		ordinary substantial buildings with partial collapseDamage great in poorly
		built structures Fall of chimneys, factory stacks, columns, monuments,
VIII	Severe	wallsHeavy furniture overturned
		Damage considerable in specially designed structures; well-designed frame
		structures thrown out of plumb. Damage great in substantial buildings with
IX	Violent	partial collapseBuildings shifted off foundations
		Some well-built wooden structures destroyed; most masomy and frame
X	Extreme	structures destroyed with foundationsRails bent.

 $\label{lem:modified-mercalli-intensity-scale} \textbf{More information: } \underline{\textbf{https://www.usgs.gov/programs/earthquake-hazards/modified-mercalli-intensity-scale} \\$ 

## Acknowledgements

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Much thanks also go to Chris Mattia, W6AH, for his editorial work with this project.

Much thanks go to the 10 FEMA Regional RECCWG's, and their stakeholders, CISA SHARES, the ARRL, and many other organizations for their part in presenting this exercise to potential participants.