

CGTC Safety Instruction

Hazard Preparedness And Response

**Severe Thunderstorm
Tornado
Flash Flood**



Camp Gruber Joint Maneuver Training Center –
Heavy
Oklahoma Army National Guard
Braggs, Oklahoma 74423-0029
17 July 2005

UNCLASSIFIED

Hazard Preparedness and Response

CGJMTC-H

1.0 PURPOSE

The purpose of this document is to provide instructions for dealing with inclement weather hazards likely to occur at Camp Gruber Joint Maneuver Training Center – Heavy (CGJMTC-H).

2.0 SCOPE

This guide presents information relevant to preparedness and response to such hazards as severe thunderstorm, tornado, and flash flood.

3.0 APPLICABILITY

This document is applicable to all personnel occupying CGJMTC-H, to include full-time staff, man-day employees, representatives of civilian agencies, contractors, and all other visitors both civilian and military.

4.0 GENERAL REQUIREMENTS

Be familiar with this safety instruction. Keep a copy posted in your area or within reach. Know the warning signs and signals. Incorporate risk assessment measures into your work and/or training. In the event of an emergency, be concerned for your own safety prior to that of others. You cannot render any help during the aftermath of an incident if you are yourself incapacitated. Know your limitations. Know where to seek help as needed. Contact the Operations and Training branch, 918-549-6195 for any additional information concerning hazard preparedness and response.

5.0 SPECIFIC REQUIREMENTS

If witnessing any of the events described herein immediately contact Commander, CGJMTC-H at 918-549-6004 and/or OMD Police at 918-549-6021. An “all stations” call on the Range Control net (FM 40.80 or 31.30Mhz) should also be issued.

Severe Thunderstorm • 5.1, *page 2*

Tornado • 5.2, *page 4*

Flash Flood • 5.3, *page 6*

APPENDICES

A. Emergency Contact Numbers, *page 8*

B. Tornado Response by Location, *page 9*

C. CGJMTC-H Warning (Siren) System, *page 15*

Hazard Preparedness and Response

CGJMTC-H

5.1 Severe Thunderstorm

a. Definition

As its name suggests, a thunderstorm is a meteorological event in which rainfall is accompanied by lightning and thunder. A *severe* thunderstorm, however, is a special case of the above which is also characterized by heavy rainfall and having any one of the following: a tornado, wind gusts of 50 knots (58 mph) or greater, or hailstones $\frac{3}{4}$ " diameter or greater. For our purposes, tornados will be addressed separately (see Section 5.2, page 4).

b. Signs and Warnings

The first indication may be the approach of cumulonimbus clouds (thunderheads), which are miles across at the base and reaching heights of 40,000 feet or more. Whether occurring singly, in clusters, or in a line, they will also occur with distant lightning and thunder. To estimate distance in miles from a thunderstorm count the number of seconds between lightning flash and thunderclap, then divide by 5. Extreme temperature drops and flash flooding may also result (see Section 5.3, page 6).

(1) Severe Thunderstorm Watch

Issued by the National Weather Service in Norman, OK, meaning that conditions are right for a severe thunderstorm to exist.

(2) Severe Thunderstorm Warning

Issued by local offices of the National Weather Service, meaning that a severe thunderstorm has been sighted in the area. In the event that a Severe Thunderstorm Warning has been issued for our area, Range Control personnel will communicate this information via radio on the range net and admin net.

c. Immediate Dangers

The most immediate threat during a thunderstorm is lightning, which kills more people in the U.S. than the number killed by tornadoes, floods, and hurricanes combined.

d. Preparedness

The best preventive measure is to know when a severe thunderstorm is approaching, and can therefore avoid situations that will increase your risk of lightning strike and other associated dangers. Secondly, be familiar with this instruction especially as concerns your designated shelter should the threat level increase. Have flashlights and a battery operated radio available.

Hazard Preparedness and Response

CGJMTC-H

e. Response

- (1) Get out and completely away from any lake, river, or other body of water.
- (2) Get away from tractors, farm equipment, and other potential “lightning rods” such as golf clubs, golf carts, fishing rods, bicycles, a tree, or any lone structure in a field or on a hilltop.
- (3) Don’t be (or be near) the tallest object in an open area. Seek shelter under a small tree among several large ones (not isolated) if possible, no closer than six feet to the trunk.
- (4) Alternatively, seek shelter in a ditch, depression, low area, ravine, or foot of a hill.
- (5) Once in a suitable area, crouch with heels touching, and place hands over the ears. **DO NOT LIE FLAT ON THE GROUND.**
- (6) If in a vehicle, pull safely onto the shoulder and turn on the emergency flashers until the heavy rain subsides.

f. Recovery

- (1) Extinguish any fires, call Range Control and/or the applicable emergency service (see Appendix A, page 8) as needed.
- (2) Provide first aid or CPR to any victim as needed.
- (3) Be certain that all storms have ceased before resuming normal activity.

Hazard Preparedness and Response

CGJMTC-H

5.2 Tornado

a. Definition

A tornado is a relatively short-lived and violently destructive localized windstorm. They normally descend from a thunderstorm cloud in a rotating funnel shape which extends to the ground. A tornado will usually travel no more than 60 mph, but with an internal wind speed that can approach 400 mph. A typical tornado will leave a destructive path 750 feet wide and 15 miles long. In extreme cases they have been known to leave a mile wide destructive path over 300 miles long.

b. Signs and Warnings

Although not all thunderstorms create tornadoes, tornadoes are developed during severe thunderstorms. The most obvious indication of a tornado is a rotating funnel-shaped cloud. As it develops, it is also characterized by a loud roaring sound said to be comparable to jet engines or a locomotive.

(1) Tornado Watch

Issued by the National Weather Service in Norman, OK, meaning that conditions are right for a tornado to exist.

(2) Tornado Warning

Issued by local offices of the National Weather Service, meaning that a tornado has been sighted in the area. . An audible alarm will be sounded at CGJMTC-H by Range Control personnel when a Tornado Warning has been issued or a tornado has been sighted in the area, and also to signal All Clear. See Appendix C for details.

c. Immediate Dangers

Tornadoes pose an immediate danger to life and damage to property from violently rotating winds and the debris that's hurled along with it.

d. Preparedness

The best preparation is to know the signs and warnings and how to react to them. Don't be dependant on an audible warning system alone—they don't always work. Know your designated shelter for your location. Always be aware of daily weather conditions, and report any signs of a tornado to others if you have the opportunity (i.e. local law enforcement, weather service).

Hazard Preparedness and Response

CGJMTC-H

e. Response

(1) General

- A. Do not seek shelter in vehicles.
- B. Do not seek shelter in modular buildings or trailers.
- C. Do not seek shelter in buildings of sheetmetal siding, conventional siding on wood frame, or with widespan roofs over open bays.
- D. Avoid exterior walls and windows.
- E. Seek shelter in buildings of cinderblock or newer masonry construction.
- F. Seek locations as near to the interior of the building and on the lowest level.
- G. If outdoors, seek depressions or low-lying areas such as ditches, culverts, and ravines. Lie face down, flatwise, with hands covering the back of your head.

(2) Specific

See Appendix B (page 9) for shelter recommendations depending on location.

f. Recovery

- (1) Await the All Clear signal before leaving your shelter.
- (2) Extinguish any fires, call range control and /or the applicable emergency service (see Appendix A, page 8), or otherwise assist in rescue efforts as needed.
- (3) Provide first aid or CPR to any victim as needed.
- (4) Re-enter buildings with extreme caution, and be alert to fire hazards due to damaged electrical and gas lines.

Hazard Preparedness and Response

CGJMTC-H

5.3 Flash Flood

a. Definition

A flash flood is a sudden and destructive rush of water due to an extremely heavy rainfall. They can occur swiftly and without warning.

b. Signs and Warnings

Flash floods almost always occur during or after prolonged heavy precipitation. They are more likely when local streams and rivers are already flowing at a higher level and more swiftly than normal. Approaching waters may also be accompanied by a roaring sound.

(1) Flood Warning

Issued by the National Weather Service, projects the expected location, time, and severity of flooding.

(2) Flash Flood Warning

More urgent than a Flood Warning, and requiring immediate action in some areas. Flash Flood Warning information is also available from local law enforcement and other agencies, sometimes by door-to-door notification, loudspeakers, and sirens. Range Control personnel will announce this condition via radio on the range net and admin net.

c. Immediate Dangers

The immediate danger from flash floods is drowning due to the strength of the water current. Other dangers include outbreak of disease, widespread animal death, broken sewage, water, and gas lines, downed power lines, and fires. Certain roads may also be rendered impassable, especially at low water crossings.

d. Preparedness

Be aware of weather conditions, receptive to their warnings signs, and knowledgeable of the appropriate response depending on your situation. As for any emergency, maintain a first aid kit, flashlight, portable radio, canned goods and drinking water.

e. Response

- (1) Move immediately to high ground and do not try to save any possessions. If you are in a situation in which there is time available, turn off any nearby utility mains prior to departure.

Hazard Preparedness and Response

CGJMTC-H

- (2) Since CGJMTC-H has a number of low water crossings, it should never be attempted to cross one by vehicle or afoot when the water has attained dangerous levels. As it is never advisable to cross a flowing stream where water is above your knees, be advised that as little as six inches of rushing water can knock you off your feet. Also, a typical automobile will lose approximately 1500 lbs. of weight due to buoyancy for every one foot depth of water. Even though most vehicles won't float in less than two feet of water, it wouldn't take that much water to stall one out. Immediately abandon any vehicle that is stalled in flowing water. If ever isolated on CGJMTC-H due to impassable roads or low water crossings, have the sense and patience to wait out the condition until the situation normalizes or help arrives.

f. Recovery

Before entering any facility which may have been affected, check for structural damage and do not use open flame as a source of light. Open all doors and windows quickly as possible. Seek medical care as needed. Do not ingest any foodstuffs which may have come in contact with flood waters.

Hazard Preparedness and Response

CGJMTC-H

APPENDIX A

Emergency Contact Numbers

POLICE

Braggs Police		98-1918- 478-5952
Fort Gibson Police		98-1918- 478-3998
Gore Police Department		98-1918- 489-5963
Muskogee City Police	(emergency)	98-1918- 680-3102
	(emergency)	98-1918- 680-3103
	(non-emergency)	98-1918- 683-8000
Muskogee County Sheriff		98-1918- 687-1275
Oklahoma Highway Patrol (Muskogee)		98-1918- 683-3256
	(Tulsa)	99- 627-0440

FIRE

Braggs Fire Department		98-1918- 487-5991
Fort Gibson Fire		98-1918- 478-4221
State Forestry Department (forest fire)		98-1918- 456-6139

AMBULANCE

Air Evac	(air ambulance)	99-1800- 247-3822
Life Flite (Tulsa)	(air ambulance)	99- 584-5433
Muskogee EMS	(emergency)	98-1918- 683-0108
	(business)	98-1918- 683-0130

OTHER

Cherokee Wildlife Area		98-1918- 458-5751
Wildlife Manager		98-1918- 457-3416
Lake Region Rural Electric		98-1918- 772-2526
Muskogee Regional Hospital		98-1918- 684-2151
National Weather Service (Tulsa)		99- 743-3311

Hazard Preparedness and Response

CGJMTC-H

APPENDIX B

Tornado Response by Location

NOTE: The following sites are recommendations only, and assuming evacuees have enough time to respond. If time is not available, take immediate action to seek nearest cover and any other protective measures at hand.

Bldg / Description	Shelter Instruction
001 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
002 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
003 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
004 Trailer	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along 4th Street.
005 Trailer	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along 4th Street.
008 Trailer	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along 4th Street.
009 Trailer	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along 4th Street.
025 Security Bldg.	Evacuate to ditch west of building.
026 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
027 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
028 Trailer	Evacuate to ditch west of Building 025 (Security).
029 Trailer	Evacuate to ditch northwest of trailer.
032 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.

Hazard Preparedness and Response

CGJMTC-H

033 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
034 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
035 Trailer	Evacuate to Building 154 or 155 during 0700 to 1630 hrs (via east or west doors), or use ditch east of trailer.
036 Trailer	Evacuate to nearest 2-story barracks if open, or use ditch along 6th Street or Central Europe Road.
037 RV Site	Evacuate to area north of trailers and duck into stemwall (foundation) remains.
108 Classroom	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along 4th Street.
109 EST Bldg.	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along Rhineland Road or 4th Street.
110 NVS Bldg.	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along Rhineland Road or 4th Street.
111 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
112 Mess Hall	Seek central location away from exterior walls and windows (latrine or shower area).
113 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
114 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
115 Mess Hall	Seek central location away from exterior walls and windows (latrine or shower area).
116 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
117 CO Admin	Seek central location away from exterior walls and windows (latrine or shower area).

Hazard Preparedness and Response

CGJMTC-H

118 CO Admin	Seek central location away from exterior walls and windows (latrine or shower area).
119 BN Supply	Seek central location away from exterior walls and windows (latrine or shower area).
120 Billeting Ofc	Seek central location away from exterior walls and windows (latrine or shower area).
121 CO Admin	Seek central location away from exterior walls and windows (latrine or shower area).
122 CO Admin	Seek central location away from exterior walls and windows (latrine or shower area).
123 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
124 Mess Hall	Seek central location away from exterior walls and windows (latrine or shower area).
125 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
126 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
127 Mess Hall	Seek central location away from exterior walls and windows (latrine or shower area).
128 Barracks	Seek central location away from exterior walls and windows (latrine or shower area).
130 TMC	Seek central location away from exterior walls and windows (latrine or shower area).
132 Classroom	Seek central location away from exterior walls and windows (latrine or shower area).
135 Shoppette	Evacuate to nearest open building of block construction, or use creek bed south of building.
136 Office	Seek shelter in basement of Building 900 (residence) or Building 910 Water Plant.

Hazard Preparedness and Response

CGJMTC-H

137 Gym/Laundry	Evacuate to nearest open building of block construction, or use creek bed south of Building 135 (Shoppette).
154 Headquarters	Seek central location away from exterior walls and windows (latrine area).
155 HQ/Command	Seek central location away from exterior walls and windows (latrine or shower area).
200 Maint. Shop	Evacuate to ditch along north side of central Europe road or creek bed west of maintenance complex.
201 Rds/Grds Shop	Evacuate to ditch along north side of central Europe road or creek bed west of maintenance complex.
208 Motorpool	Evacuate north to nearest 2-story barracks if open, or use ditch along north side of Rhineland Road.
209 Motorpool	Evacuate north to nearest 2-story barracks if open, or use ditch along north side of Rhineland Road.
211 Laundromat	Evacuate north to nearest H-style or 2-story barracks if open, or use ditch along north side of Rhineland Road.
220 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
221 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
222 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
223 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
226 BOQ	Seek central location away from exterior walls and windows.
227 BOQ	Seek central location away from exterior walls and windows.
228 BOQ	Seek central location away from exterior walls and windows.
230 BN Admin	Seek central location away from exterior walls and windows.
232 BOQ	Seek central location away from exterior walls and windows.

Hazard Preparedness and Response

CGJMTC-H

240 BN Admin	Seek central location away from exterior walls and windows.
250 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
251 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
252 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
253 Barracks	Seek lower level, central location away from exterior walls and windows (latrines or supply area).
260 BN Admin	Seek central location away from exterior walls and windows.
298 Residence	Evacuate to ditch northwest of building.
320 Warehouse	Evacuate to ditch along north side of Central Europe Road.
321 Warehouse	Evacuate to ditch along north side of Central Europe Road.
323 Warehouse	Evacuate to ditch along north side of Central Europe Road.
324 Warehouse	Evacuate to ditch along north side of Central Europe Road.
327 Whse/Office	Evacuate to ditch along north side of Central Europe Road.
329A Whse/Office	Evacuate to ditch along north side of Central Europe Road or creek bed east of building.
329B Whse/Office	Evacuate to ditch along north side of Central Europe Road or creek bed east of building..
330 Field Latrine	Evacuate to ditch along north side of Central Europe Road.
331 Field Latrine	Evacuate to ditch along north side of Central Europe Road.
332 Field Latrine	Evacuate to ditch along north side of Central Europe Road.
740 Range Control	Evacuate to creek bed east of building.
760 UTES Annex	Seek shelter location in office area or latrines. Avoid open bay areas.
900 Residence	Seek shelter in basement of building.

Hazard Preparedness and Response

CGJMTC-H

901 Storage	Seek shelter in basement of Building 900 (Residence).
902 Storage	Seek shelter in basement of Building 900 (Residence).
903 Storage	Seek shelter in basement of Building 900 (Residence).
904 Storage	Seek shelter in basement of Building 900 (Residence).
905 Storage	Seek shelter in basement of Building 900 (Residence).
906 UTES	Seek shelter location in office area or latrines. Avoid open bay areas.
910 Water Plant	Seek shelter in basement of Building 900 (Residence).
1405 Range Maint.	Evacuate to creek bed south of maintenance complex or north to foxholes in Zero East range.
5031 Bldg.	Seek shelter in basement of Building 900 (Residence).
Ranges/TA's	Get out of the towers and sheds. Seek shelter in solid structures of block construction, if nearby. If available, use MOUT-CTF buildings, basements, and tunnel system. MOUT-MAC also has a tunnel system above ground. Use bunkers on the Hand Grenade Familiarization or Heavy Demo ranges. Use the trench and bunker system at the Trench Line range, Reservoir, or any other structures as may be accessible in the field. Otherwise, seek creek beds, ditches, ravines, culverts, or any other low-lying area for this purpose.

Hazard Preparedness and Response

CGJMTC-H

APPENDIX C

CGJMTC-H Warning (Siren) System

1.0 GENERAL

Camp Gruber Joint Maneuver Training Center – Heavy has a warning siren located on a pole near the southeast corner of Building 230, on Southern France between 4th and 5th streets. This system is activated remotely by Range Control personnel on a routine basis for testing purposes or as needed during an actual emergency. If necessary, security personnel may activate the warning siren from the Range Control fire desk.

2.0 SIGNAL TONES

To signal an emergency, one of three distinctly different tones will be issued from the siren as follows:

FIRE—Wailing tone, 16 seconds high, 8 seconds low; 4 cycles duration

TORNADO—Wailing tone, 6 seconds high, 6 seconds low; 3 minutes duration

ALL CLEAR—Steady tone, 3 minutes duration

3.0 OPERATION

3.1 Equipment. Located at the Range Control fire desk, consisting of a hand-held transceiver, Kenwood model TK-762 G, serial number 51100203, with a KSC-24 Rapid Charger.

3.2 Activation. Turn on transceiver and key for the applicable signal as follows:

<u>Keystroke</u>	<u>Function</u>
* 1 PTT(push to talk)	FIRE
* 2 PTT	TORNADO
* 3 PTT	ALL CLEAR
* 4 PTT	GROWL (short burst for silent testing)
* 5 PTT	CANCEL

4.0 TESTING

Testing of the warning siren will be conducted weekly, at 1200 hours each Wednesday. Such testing will be preceded by an announcement via radio from Range Control on both the range net and admin net. A radio announcement will also be issued to communicate the conclusion of each test.