



Winter Deployment

Winter deployment offers unique challenges to disaster relief as weather conditions may include snow, ice, wind, and below-freezing temperatures. These weather conditions provide both unique challenges and opportunities to be a witness for Jesus Christ. It is critical that Disaster Relief teams be prepared for these conditions as they seek to serve in effective ministry.

Volunteer Preparedness for Winter Deployment

1. Volunteer teams should be aware of weather conditions before departing and it is recommended that they connect with affected state director to be apprised of road conditions.
2. Volunteers need to bring appropriate clothing for cold weather such as:
 - a. Waterproof boots with as much insulation as possible. Keeping feet dry is critical during freezing temperatures. Socks that become wet should be changed immediately.
 - b. Waterproof gloves with good insulation. This is particularly true in snow/ice conditions.
 - c. Hat or toboggan greatly encouraged as this increases body warmth. It is recommended that head ware covers ears in below freezing temperature.
 - d. A coat is absolutely necessary and coats made of materials that are wind resistant greatly improve body warmth in winter conditions. A jacket or windbreaker is not a coat for winter outdoor conditions.
 - e. Long underwear or some extra layer beneath clothes is strongly suggested in winter conditions. Layered dress gives volunteer

option of removing some clothing if temperatures warm during the day.

f. Insulated socks or multiple layers of socks are suggested.

Always wear the right thickness of socks for your boots as socks lose insulation effectiveness if they are compressed too tightly in your boots.

g. Turtlenecks worn under a sweatshirt or sweater give increased protection to the cold.

h. Clothing should be kept clean since dirt fills air cells in fibers in clothing and destroys insulating ability.

i. Cotton clothing is not recommended as it loses insulating properties quickly when it becomes damp or wet.

j. Sunglasses are suggested to protect from snow glare or in sleeting conditions.

k. Remember as you dress for cold that heat loss is intensified when head, hands, or feet are exposed. 50% of body heat is lost through the head.

3. Volunteers need to cease chainsaw work in high or gusting wind conditions and take shelter in a safe enclosure.

4. Volunteers need to be aware of frostbite signs in themselves and fellow team members. Frostbite is an injury resulting from freezing of body tissues. Signs of frostbite are:

a. Body tissue feels firm and cold.

b. Burning, tingling, stinging or numbing of tissue is typically present.

c. Skin develops a deep red or bluish tint.

d. Extreme frostbite can cause impaired motor control.

e. People from warmer climates often suffer frostbite more rapidly.

f. Nicotine and other drugs that reduce blood circulation can speed frostbite.

g. If a volunteer is experiencing frostbite, it is important to seek shelter and medical attention as soon as possible.

h. The best way to warm a frozen part of the body is to put it into a tub of moderately hot water (104-108 degrees F).

i. Do not rub affected areas.

5. Volunteers should be aware of hypothermia signs in themselves and other team members. Hypothermia is the development of abnormally low body temperature. This is most often caused by long exposure to extreme cold. Signs of hypothermia are:

- a. An internal body temperature below 95 degrees F.
- b. Symptoms usually begin slowly with cloudy thinking or slowed mobility.
- c. Uncontrollable shivering.
- d. Stumbling or unusual clumsiness.
- e. Thickness of speech.
- f. Drowsiness or fatigue.
- g. Irrational behavior.
- h. Memory loss and/or confusion.
- i. Blueness of skin.
- j. Slowed breathing or heart rate.
- k. Temperature does not need to be sub-zero to experience hypothermia.
- l. Older people are more susceptible to hypothermia.
- m. Hypothermia can occur anytime that a person is exposed for prolonged periods of time in cold, damp conditions.

6. Volunteers serving in winter conditions need to take breaks in a heated place on a regular basis. If temperature is 32 degrees to 0 degrees F, it is suggested that a fifteen minute break be taken at least every 4 hours of work. If the temperature is below 0 degrees F, it is suggested that a worker take a fifteen minute break every 2 hours and if the temperature drops below -35 degrees F, all non-emergency work should cease .

7. Volunteers should determine actual temperature as wind-chill temperature. Wind greatly increases wind chill temperature.

8. Volunteers should drink plenty of fluid as strenuous work in cold temperatures can cause the body to dehydrate and may not be as noticeable as in hot weather conditions. Hot liquids can help maintain body temperatures though caffeine does contribute to dehydration.

9. Volunteers need to eat balanced and regular meals as this is essential to maintaining body heat and preventing dehydration.

Winter Deployment Feeding Operations

Winter deployment offers extreme challenges to disaster relief feeding operations with volunteers and equipment. Below are considerations for mobilization of feeding units during a winter deployment:

1. The best option for winter deployment in feeding is to be able to utilize an existing indoor kitchen facility that has capabilities of preparing large quantities of food, for example a school cafeteria, military base kitchen, shelter kitchen, church kitchen, etc.

Disaster Relief could man feeding operation but utilize existing equipment. Note: In rural areas finding this type of facility is often difficult and if schools are in session, almost impossible to find.

2. If Mobile kitchen is deployed, either a tent or large ventilated building will need to be provided for kitchen to set up in if temperatures are below freezing (32 degrees F). Below are factors to consider for this deployment option:

a. Propane gas gives off carbon monoxide which can be deadly without proper ventilation.

b. Cooking equipment should be maintained at an 18 inches to two feet space from tent walls.

c. Propane should be stored a minimum of 20 feet from cooking tent.

d. Extreme cold can cause lessen cooking effectiveness of propane and impact cooking times of equipment.

e. Tent or building will need to be properly ventilated.

f. In snow conditions, it may be necessary to set up rain/snow tarp over tent to prevent sagging due to snow weight.

g. Tents should not be set up in high or gusting winds.

h. Parking area will need to be cleared where tent will be established in snow conditions.

i. Dry-box food shipment will need to be stored in an area where freezing can be prevented.

- j. Portable heating source may need to be provided to maintain reasonable work space temperature depending on size of tent/facility.
- k. If large building is utilized, team will have to determine that nothing is in building area that could cause food contamination or expose food to contaminants.
- l. Cambo temperatures should be closely monitored as there is question if extreme cold can affect cambro holding temperatures.
- m. All water lines should be wrapped in heating tape or insulation board.
- n. Buckets used for anchorage will freeze. This does not change anchorage weight.

Winter deployment of Shower Units

1. Shower units would be most effective if walls are insulated.
2. All water lines should be wrapped in heating tape or insulated board.
3. Shower unit would need to be monitored closely by a volunteer and may need water supply to be turned off and drained after use each day to prevent overnight freezing if temperatures drop below freezing.
4. Insulation of shower unit can be strengthened by blocking wind/cold from undercarriage with bales of straw, insulated board, etc.