

# Winter warfare

Supporting maneuver in ice, snow, cold

By 1st Lt. Anthony Lombino

Russia, China and North Korea: Many of the United States' potential adversaries live and routinely operate in frigid and snow covered environments. They are experts in winter warfare. Their artillery has no qualms with sending rounds downrange and delivering effects on target in subzero temperatures. If the U.S. wants to compete with these powers in the realm of indirect Fires we must increase our capability to operate in these same conditions.

The Soldiers of the 10th Mountain Division at Fort Drum, N.Y., are no strangers to the snow and cold. Second Brigade Combat Team's recent culminating training exercise (CTE) gave 2nd Battalion, 15th Field Artillery Regiment significant experience with shooting, moving and communicating in winter conditions. We ran into our share of problems, but the lessons we took away from these experiences and the cold weather training in preparation for this

*Soldiers of the 2nd Battalion, 15th Field Artillery Regiment place an M777 howitzer during a unit cold weather training exercise. (Courtesy photo)*



event taught us an effective approach to supporting the maneuver fight under these conditions.

Winter is long in Fort Drum. There is usually snow on the ground from mid-October to mid-April, with temperatures fluctuating between 8 and 29 degrees Fahrenheit. During the CTE, the average temperature was 21 F, with two days of heavy snowfall at the beginning of the exercise. Snow accumulation and heavy winds resulted in snow drifts up to three feet deep. The sunlight hours involve movement and survivability moves, often in deep snow. Snow blindness afflicts drivers and hampers visibility. Heavy snowfall drops this visibility to almost nothing. Nights are even worse with temperatures reaching their lowest. We learned to focus on three areas in order to aid us in these cold weather conditions: equipment, preparation and tactics.

Special attention must be paid to equip-

ment and vehicles when temperatures drop below freezing. At least once a day during CTE we ran into something freezing at a critical moment. Metal had to be handled with gloves and the battery life of digital systems and radios was greatly reduced. Tow hitches were a particular problem with the retaining pins freezing in place making it difficult to emplace howitzers and attach trailers. Water freezing in the water cans was the most frustrating issues encountered. Some tactics, techniques and procedures (TTPs) we developed to overcome these problems include using vehicle exhausts to thaw water cans and carrying spray bottles full of denatured alcohol to unfreeze the breeches and other metal parts. Checking for and combating frozen equipment quickly became the main priority of work after security. The number one thing we learned is that cold weather requires essentially constant monitoring of equipment that will freeze if left unattended for any period of time.

The second area we learned to focus on is preparation. Second Brigade has a standard cold-weather packing list that is very comprehensive. The moniker "Light Infantry" has often been taken as an ironic joke at Fort Drum given the amount of gear the individual is expected to carry around with them in the field, but this took it to a whole new level. We each brought special snow boots, the entire extended cold weather clothing system, a full sleep system, mittens, arctic gloves, snow camouflage outer garments, full personal protective equipment and full nuclear/biological/chemical suits in addition to the myriad of items common to every Army packing list. We also learned to pack every pair of socks we own and a spare pair of boots since the feet are particularly susceptible to cold weather injury, even with snow boots.



*Soldiers from 2nd Battalion, 15th Field Artillery Regiment, fire an M109 howitzer during a unit cold weather training exercise. (Courtesy photo)*

In the end each Soldier brought along a rucksack, an assault pack and a full duffel bag in their vehicles adding on to their section's equipment and the other equipment needed to accomplish the mission like radios and first aid equipment. This made storing and securing anything in a logical fashion extremely difficult and slowed us down by forcing everyone to rifle through a veritable mountain of gear to get at, or put away what they needed. A balance has to be struck. The packing list must be streamlined, but unit load plans must also take into account the increased space required for more personal equipment. The infantry also ran into problems with their packing list, but because they are limited by dismounted movement they are more focused on "trimming the fat." Despite our mounted capabilities, the artillery needs to get into the same mindset. Movement becomes harder in the snow and an overabundance of gear will only exacerbate the problem.

The third area we learned to focus on was tactics which had to be altered in these frigid conditions. Terrain analysis becomes much more difficult when the ground is frozen, with a layer of ice on the surface and a blanket of snow as it was during CTE. We had to rely more heavily on map recon due to the fact that the naked eye cannot pick up

what is under the snow during a physical recon. But there is only so much leaders can glean from a map. There were times when we ended up setting up on top of a stream or swamp without even realizing it. It goes without saying that our vehicles got stuck more than once. We found tire chains to be extremely helpful, but our overloaded vehicles still got stuck. Self-recovery in the snow is a skill that must be learned through hands-on experience.

Artillery is particularly vulnerable to air attacks and enemy unmanned aerial system. Artillery unit's primary defense against an air threat is concealment. Usually camo nets are set up over artillery to conceal them from the air, however our desert camo nets stuck out like a sore thumb during CTE. If we had had winter nets we would have been nearly invisible to air and ground threats. The snow also made vehicle tracks easily distinguishable. Moving during periods of heavy snow fall masked our tracks and decreased our chances of being detected.

Artillery is also vulnerable to counter fire. When a howitzer fires a round, enemy radar can track the round in the air and trace it back to the firing unit's location. The typical answer to this threat is survivability moves: a quick displacement of the unit

after a certain amount of time or certain number of rounds fired. The snow makes this much more difficult. Decreased mobility means that exfiltration routes must be planned and prepared beforehand. Extra time must also be allocated for vehicles and equipment should be thawed as much as possible before the expected movement.

The dynamic nature of the modern battlefield demands a high level of competence in all types of environments and the cold weather environment is no exception. These tactics and techniques that we have developed over our training at Fort Drum enable us to improve our ability to support the maneuver fight despite freezing temperatures and massive snow buildup by focusing on three areas: equipment, preparation and tactics. They are how we have built competence operating in freezing conditions. We expect to face a tough and determined enemy who is already accustomed to these kinds of conditions. In the end, we learned that it is experiences like CTE that will enable a unit to be effective in a winter conflict.

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