Adverse Conditions

As a crime scene officer, your first task is to secure and protect the scene. But when you're faced with adverse weather conditions, barrier tape alone won't be enough. For those cases, you have to think outside the box to find ways to save as much evidence as possible. Remember, if you don't do your job well, you might lose valuable evidence. A case weakened by lost evidence will fall back on your shoulders. Don't let that happen to you. In this issue, I'll look at some strategies you can use for dealing with adverse conditions.

First, being prepared involves more than making sure that you have your standard equipment in your crime scene vehicle before you head to a scene. Before a problem even arises, you should form and maintain contacts with local agencies, community groups, and other vendors that you can rely on for help. These groups appreciate the contact and value the opportunity to aid their community. You may never need some of their services, but if you do, they'll be there to assist you.

One important reason to call on the community or other agencies is to supply extra manpower. Since the terrain dictates the number of people you need, you may encounter crime scenes that require more people than you have available. For instance, if you are processing a dense area packed with brush and other encumbrances, you'll need a lot of people working close together. Or, if you're searching a large field for a bullet or a weapon, you can bring in a local metal detector group to help. If you don't have enough people to gather evidence and process the scene right the first time, you'll have to search the same area again. You don't have time to waste needlessly. Don't be so proud that you don't ask local agencies for help.

In other cases, your most pressing problem will be obtaining the proper equipment. For example, if a meth lab explodes, a quick response is critical for rescuing any survivors and searching for evidence. If you've established and maintained a good relationship with a local construction company, they can immediately supply you with the backhoe and other heavy equipment you'll need to get through the rubble so you can perform your job.

One of the most common problems that you're likely to encounter is bad weather. For instance, you might be investigating a homicide at 1:00 or 2:00 in the morning when your dispatcher tells you that a heavy rainstorm will hit your area within an hour. Fingerprint and DNA evidence can be lost in the rain, so you must act quickly to get the environment covered. If you don't have your own tent and you've made prior arrangements with a rental company, you can call them to set up a tent to cover your scene. If you don't have this kind of an arrangement in place, you'll have to grab evidence as best you can and move it inside. In the process, some evidence could be lost or ruined.

After you've taken the crucial step of covering your environment, you then have to consider the best method to process your evidence. Fragile evidence such as shoe tracks, tire tracks, hairs, and fibers can be lost if not properly protected.

While fingerprint evidence is not as fragile as some people think, you do have to handle it appropriately. If it's raining, don't be too quick to move a vehicle before lifting prints. Process at the scene. If you tow the vehicle in the rain, the grit and grime from the wrecker will act like sandpaper, and you'll lose the prints. Also, if you let the surface dry out, water spots will form and interfere with the quality of the fingerprints. On the other hand, oil and water don't mix, so the fingerprints will remain intact on a wet vehicle.

You have two options for developing and lifting latent fingerprints from a wet surface: SPR and Wet Print. SPR is a dry powder that you mix with water and Photo Flo. Once you spray the solution on the wet surface, the SPR adheres to the latent fingerprints, allowing you to see them. Because SPR sprays on grey, you may have to use multiple applications to get a black print. Wet Print is a premixed solution. Spray it on, then rinse with water, and the prints will be right there. You only need to apply Wet Print once; you get a black print the first time. One drawback to both these products is that they can't be used in temperatures below 32 degrees because they are water-based. So, in winter weather, you'll have to let the car or other surface thaw out before you begin processing.

Heat is actually worse than rain for fingerprints. The ideal temperature for lifting fingerprints is 70-75 degrees. When the temperature is too hot, the oil left on the prints becomes thinner, and you're left with prints that are fragile and will streak. To avoid this problem, you should cover the vehicle with a tent or move it into the shade to cool it down. Once it's cool, you can process it at the scene.

Crime scenes often present difficult challenges. But you can prepare for these challenges with some creative thinking and planning. Take advantage of the resources available in your community, and understand what steps to follow and products to use in adverse conditions. Then, when you're faced with the unexpected at a crime scene, you'll be ready.

Dick Warrington is in research and development and a crime scene consultant and training instructor for the Lynn Peavey Company. For the past several years, Dick has been teaching classes throughout the U.S. and Canada, trying to dispel some of those "you can't do that" myths. Dick can be reached at dwarrington@peaveycorp.com