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Back to Basics: The Downsides of Advanced Technology in Today’s Security Industry

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Technology & Situational Awareness in Today’s Security Industry

Well before the War on Terror, the security industry increased ten-fold. As part of that expansion the equipment that supports our industry has adapted and evolved to accommodate the challenges that we face. In fact, the industry has advanced so much, that now we have joystick traversing turrets, advanced thermal imagery, liquid body armor, rear view driving cameras, the Boomerang gunshot locator, advanced range finders and more. Equipment that was once only conceivable as part of a Hollywood movie is now commonplace.

As a former Army Infantryman and now Federal Law Enforcement officer & Executive Protection Specialist, I have had the privilege of using some of the most advanced weaponry and security equipment available today. These tools have enabled me to be far more effective. That is, provided that equipment works. As with all technology, security equipment is not infallible.

The problem is, as we increasingly rely on more and more technologically advanced and even intuitive equipment, many of us in the security industry are slowly losing touch with our training foundations. Without the underpinning skills that may be replaced by this technology, any technological or equipment failure becomes a weakness if there’s not the competence to fill the void until the equipment failure is rectified. Needless to say, this can jeopardize an operation. One of the key skills that’s diminishing in the technology shuffle is Situational Awareness (SA).

We use it often in many industries and even in normal, everyday life. Situational Awareness is the keen ability to see and understand what is going on around us. It is being able to balance physical abilities and cognitive reasoning skills simultaneously to keep tabs on our surroundings. We learn this skill through experience and training. Whether we are conducting a patrol in the mountains of Afghanistan or walking a beat in downtown Boston, our situational awareness is the difference between walking into a problem or just another day at work.

Complacency in any Industry: It’s Always the Little Things

Those of us with military backgrounds may recall how situational awareness was drilled into our everyday lives. A lot of people question why former military personnel are so “nitpicky,” or “detailed” in their everyday work. Though we (military & first responders) take pride in keeping
things clean and organized, this desire for order isn’t the only reason we act this way. Breaking it down, we are trained from day one to notice and understand the little things. We tend to have a fundamental understanding of the implications of the little things; not just straightening up a sheet crease, but that one minor yet important detail that can turn a snowball into an avalanche.

For example, a drill instructor demonstrates the proper way to mop and buff a floor. As simple as it may sound, this is a basic practice of situational awareness. Noticing those tiny differences, or missed spots on the floor while trying to accomplish a team building exercise while having only three hours of sleep are a good way to test situational awareness. During team building we learn to defy obstacles by breaking down not only how to overcome these obstacles, but how to do so under less than ideal circumstances.

But how does lack of situational awareness due to reliance upon technology affect people in the everyday world?

Another good example can be found in today’s car buying market. There are many vehicles that have back-up cameras and GPS navigation as standard features. We all have friends, family, or co-workers who have become so reliant on GPS in their cars that they never pay much attention to the landmarks and road routes they travel on every day. Relying on this technology can erode our basic sense of direction, meaning without GPS we are lost.

**Back-up cameras** look to be the new normal. It seems that having the bumper view, with lines and tick marks giving estimated parking distance, makes backing up a vehicle easier.

Unfortunately, there have been many incidents of drivers backing into other vehicles and pedestrians, because they are in the habit of reversing using only the rear-view camera and assuming it filled the gaps. The National Highway Traffic Safety Administration (NHTSA) released data between 2008-2011 on incidents involving backing up with cameras. Even though “back-up cameras more than doubled from 32% to 68% of all new cars sold”, injuries from back-up driving only dropped 8% country-wide. What many people don’t realize is that even back-up cameras have blind spots or creates lazy habits. Using this technology as a replacement as opposed to an additional resource or tool to assist with reversing, may compromise the accuracy of our situational awareness. And now since the NHTSA has mandated that all passenger
vehicles have back-up cameras by 2018, just imagine how far the basic skills in our safety practices will decline.

*Becoming over reliant on advanced equipment can lead to complacency. Anyone who has served in the security services knows complacency can kill. *

Imagine if you will, that the lead driver for a motorcade on a protection detail for a diplomat or other VIP, loses use of their GPS and now doesn’t have a clue where they are headed or where they are. Overreliance on a technological single point of failure now puts the security of the team and client at risk. Or perhaps the same driver encounters a problem or threat and needs to get the client out of harm’s way. The driver uses the back-up camera to make distance, and ends up putting the car into a ditch. The vehicle is not only stuck but also exposed to possible or immediate threats.

One final piece of technology that we use today are *cell phones*. Cellular phones have upgraded quickly through technological advances. From the early ‘bricks’, flip-phones, to the current computer driven ‘smart-phones’. Each device has many strong qualities & useful tools to assist in our ever-expanding world. Every business and family relies on the use of such devices. But let us remember some old practices in the use of telephones. One item many of us used were phonebooks. Nowadays phonebooks are found within the memory of our cell phones. Observing this from a security risk; how many of us write down all our contact numbers? How many of us even know the phone numbers of family & friends by memory?

With the automatic reliability of saved information, we start to forget those important contact numbers. Just imagine if your cell phone battery died, or the phone itself was damaged to the point that you could not search for important contact information; what would happen? Too many unnecessary scenarios can occur from such a simple reliance. And what about the security of information within the cell phone? How much information does one have, saving their usernames and passwords to access personal emails, bank accounts or even client information?

Even under stress free circumstances, many experienced security specialists don’t have the room for this kind of complacency. Protection teams are made up of some of the most detailed
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planners and situationally aware individuals within the security field. Their practices rely strictly on everyone maintaining the highest of standards on every level, especially the basics.

Simply put, ‘basics’ doesn’t include the latest piece of technological gadgetry. The skilled security practitioner must always think ‘what if’ - that gadget fails, that technology goes offline, that piece of equipment malfunctions? And more importantly, having a plan if it does.

The Bare Bones: Why the Basics?

Security specialties that involve fieldwork, training is conducted many times a year. Hands on training and receptive drills help to both hone reactionary skills and exercise cognitive thinking for use in any scenario while under duress. When security personnel train, they train from the ground up. Each time they go on the range they start from the beginning with the basic safety rules. This reminds us of the value of situational awareness.

Speaking of firearms, many experienced security professionals choose to requalify their firearm qualifications using iron sights, eventually upgrading to reflex and magnified sights. Maintaining their basic skills allows them to maintain their skills with or without the support of advanced equipment. How does Situational Awareness accompany something like mastering baseline weapons skills? It underpins operational readiness and assists in maintaining those high standards. This serves to ensure that the operator can accurately engage threats with the bare minimum equipment rather than stressing when operating in less than ideal circumstances or without the latest equipment. Situational Awareness also supports our ability to “nitpick” and notice the small detailed mistakes many may overlook.

Situational Awareness isn’t simply paying attention to the road while driving rather than being face down in your cell phone. It can be as detailed as planning your route to work, calculating your weekly fuel consumption so you know how much fuel to keep in the tank. It can even be memorizing your client’s monthly schedule, or favorite coffee shop they randomly like to visit. Determining what affects you and your job in everyday life is positive situational awareness and should be practiced as much as possible. Though you cannot deter or be prepared for every scenario, you can come close by sorting out and recording the minor details while applying them to training and everyday use, with or without advanced equipment.
Using airplane pilots as another example: Pilots go through hours upon hours of training in flight school, being tested on many different levels in different scenarios. It is not uncommon in today’s travels for a passenger aircraft to land using an autopilot system rather than the pilot landing the aircraft. Sound scary? Even though a pilot many be sitting in the cockpit ready to take the wheel in case the autopilot fails, over time these pilots will lose their heightened skill practice and situational awareness due to their *expected reliance* in the autopilot landing system.

It is amazing to have all the equipment available, but we must remember to keep fluent in basic physical and cognitive reasoning skills before applying and relying on new equipment. These skills are the foundation of how we function in everyday life, and especially under stressful situations. No matter what piece of gear comes out in the future, human survival will in one way or another fall back to the basics.

**We should be asking two key questions when seeking out the use and support of new technology:**

*Is the technology cost effective?*

The security industry has created countless pieces of technology which support military combat operations, protective services, and law enforcement personnel across the globe. With evolving threats popping up all over the world, such as bombings, school shootings, and lone wolf terrorist attacks, we are employing every possible piece of equipment to help detect, deter, and combat these threats. Is the technology that we have cost effective if we come to rely on it over our basic skills and fundamentals to address such threats? And how does this affect our situational awareness (SA)?

*Is There Such a Things as Too Much Information with the use of this technology?*

Some equipment and technology is of great benefit for security teams, provided they are conversant with its operation. Learning additional information is normally conducted in a controlled environment and rarely is new technology learned ‘on the job’ – that is truly a risky move. Coming to grips with new, unfamiliar equipment under extreme circumstances, can be devastating.
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Sometimes having too much advanced equipment can cause “situational overload”. Situational Overload (SO) is when your mind is attempting to process too much information at the same time while under different levels of stress. Processing or attempting to process too much information can have security personnel pause or second-guess what to do, what piece of equipment is best to use, or how long to use it. Having extensive information, or extra options of equipment on hand under duress may cause some issues, such as slowing down reaction time.

Operating under duress, without effective practice or training, can lead to that mental zone where we end up blocking everything out and focusing on the one thing in front of us. Our side-blinders go up, we miss important details, make errors of judgment and even end up in a world of hurt.

**Lack of Basic Training affecting (SA)**

It can be difficult to maintain cognitive reasoning skills under duress after losing use of advanced equipment. In some cases, the inability to maintain our cognitive reasoning could have been the reason mistakes were made. Maintaining good basic skill levels builds confidence, which in turn helps maintain a clear head and an effective level of situational awareness, even in stressful environments.

For Example: A police officer deploys their stun gun, and it has little effect on an assailant. Because the department has stun guns for every officer, combative and defensive tactics training is provided only once or twice a year. With limited training, it is difficult for the officer to gain control of the assailant when the stun gun fails, or worse, causes the officer to resort to deadly force when other options may have been available. With a more appropriate amount of training the officer may have reacted differently because their situational awareness and familiarity with the equipment was more substantial. This also applies to the use of just about any specialized equipment security personnel or police officers have available to them.

**Remember**, everything security personnel do, routinely or under duress, is underpinned by good *Basic Skills* which are directly supported by Situational Awareness. Without consistent focus on basic skills and situational awareness, everything from our reactions to our follow-through, falls apart.
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