

FlashPoint



Volume 1, Issue 1 Spring 2004

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**Safety:
The Business of MSA**

MSA is in the business of developing, manufacturing and selling innovative products to enhance the safety and health of workers throughout the world. MSA's principal product categories include thermal imaging cameras, respiratory protective equipment, portable and permanent gas-detection instruments, as well as head, eye, face, hearing, and fall protection.

MSA has a clear understanding of customer processes and safety needs. The fire service is MSA's largest market and the company dedicates significant resources to extensive research and development activities. That's why first responders throughout the world place their trust in MSA's SCBA equipment, thermal imaging cameras, fire helmets, and gas monitors. Firefighters rely upon MSA's unmatched performance.

MSA was founded in 1914 by John T. Ryan and George H. Deike, two mining engineers with firsthand knowledge of the terrible human losses caused by underground coal mine accidents. Their knowledge of the mining industry enabled them to create safety equipment to better protect miners. While the range of industries served by MSA has expanded greatly over the years, the

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company's founding philosophy—understanding customers' safety needs and designing protective equipment to meet those needs—remains unchanged.

MSA is headquartered in Pittsburgh, Pennsylvania, with operations employing 4,400 associates throughout the world. A publicly held company, MSA's stock is traded on the American Stock Exchange under the symbol MSA.

MSA believes that personalized service starts locally with your authorized MSA distributor and MSA's specialized field representatives. If you need to locate your nearest MSA distributor or have an urgent technical question, our dedicated, award-winning team of customer-service professionals is ready to help. They understand the hazards you face and the regulations you work under. Contact them at:

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AGENTS OF CHANGE

There's usually one in every department—that most "aware" first responder who always seems a step or two ahead of everybody else. He or she always seems to have heard about the latest equipment and the most revolutionary techniques. They are ahead of the curve. They ride that cutting edge.

But it goes deeper than that—back to that "vision" thing, and seeing the big picture. Most of us are locked into the immediate—responding to the present realities of the job right before us. Sometimes it's harder for us to step back and imagine other possibilities, to envision new and better ways of doing things. But that's exactly what agents of change do. They recognize a need for change and then look for ways to address that situation. Once visionaries find a potential solution, they champion that idea and try to see it put into action.

America's emergency services community can count a number of talented visionaries among its ranks. Flash Point salutes two individuals who recognized a need for change, and then devoted their time and energies to finding and spreading a solution. Their careers are legendary, their examples inspirational.

A Slow Path To Change

The bigger the idea, the stronger the resistance that can rise to counter it. And if that idea is really an entire set of new and challenging ideas, which involve a subject as sensitive and important as emergency medicine, you can bet that the resistance can be pretty stiff indeed.

That's what Jim Page discovered. Page, who describes himself as "semi-retired," has led a multi-faceted career that includes successes as a firefighter, lawyer,

author and publisher. However, it's for Page's work pioneering the concept of EMS that he's probably best known.

For Page, the inspiration for EMS began on the farm. As a 15-year-old in the early 1950s, he was working on a Kansas wheat farm when a neighboring farmer was crushed beneath a grain bed. When finally disentangled, the injured farmer was loaded into the local funeral parlor's hearse and rushed away for medical attention. "It took off for the hospital 11 miles away—but nobody attending to him. And from that moment, I thought 'There's something wrong with this picture.'"



Years later, Page had a similar experience the day he began working as an ambulance attendant, in one of the country's most notorious traffic areas. "I was given a uniform and a Red Cross first-aid book and was told that I had six months to pass the test. It was in the first three hours I found myself responsible for some mortally injured people as a result of a wrong-way driver on the Los Angeles freeway. And I had no idea what I was doing."

Page eventually became a firefighter, but saw that the same problem existed wherever he went—rescue personnel were not being given a sufficient amount of medical training, necessary

equipment or any real lifesaving authority. By the late '60s, though, things were changing. Page heard about experiments that had successfully used firefighters as paramedics, and he was plenty intrigued. Meanwhile, Page had risen through the firefighting ranks to become a battalion chief in Los Angeles. So when the department decided to explore the potential of a paramedic program, it assigned the fledgling program to Page, the idea's most ardent disciple.

Resistance to the idea of paramedics seemed to come from all directions (doctors, nurses, police, health organizations) and Page spent years entangled in one political skirmish after another ("For a very long time, it was a battle a day," he recalls).

In time, however, public perceptions about emergency medicine evolved, in part due to Page's efforts. He even helped introduce the notion of paramedics into the pop culture, by serving as the LAFD's technical advisor to the '70s action drama *Emergency!*. The show, which Page also contributed to as a scriptwriter, changed attitudes about emergency medicine across the country.

Inspiration: Hay Hook

Sometimes a breakthrough idea is deceptively simple; the trick is in not rushing the idea before it's ready. Tom Wehr had been serving his community for 14 years as a volunteer firefighter when he started recognizing the need for a better means of removing auto glass during extrication incidents.

"I was trained to get the windshield out with a hay hook or with an ax," Wehr remembers. "With an ax, we were throwing glass to the inside where the



patient was, and it took so long. After that, I thought, 'There's got to be a better way.'

Wehr, an inventor by nature, took the problem as a challenge. He started tinkering with various ideas in his home workshop, using the hay hook's basic shape as a starting point. It took him six years of prototypes until he seized on the idea of incorporating a saw blade into his design. That did the trick.

The new design dramatically cut down on the time normally required to remove a windshield. Others noticed how well it worked, too: a friend at the Indianapolis Fire Dept. showed it to another colleague, who in turn mentioned Wehr's creation to Harvey Grant, a pioneering figure in auto extrication. Soon word was getting around about the simple yet effective new invention, dubbed the "Glas-Master."

Originally, Wehr encountered some disbelief when he started demonstrating the tool. "Some were skeptical that it would not work as fast as we told them. But when they tried it, the skepticism turned to 'Wow! It really works.'" And when the chief of tactical rescue at the Indianapolis FD saw the tool demo'd and immediately ordered a dozen of them, it made an impression on the tool's inventor. "My jaw dropped, and I thought, 'Maybe I've got something here.'"

That was 1989. Fifteen years later, Wehr's invention has given birth to a company (Wehr Engineering) and become a staple of rescue equipment. Though it came from humble origins and the idea took time to perfect, Tom Wehr's invention proved to be worthy of Wehr's faith. The Glas-Master is now a part of the tool arsenal of more than 30,000 departments.

Visionary Attributes

When asked for his opinion of the one quality most needed by visionaries, Jim Page couldn't tie it to one specific word, but knew what he was looking for. "I don't know whether to call it 'courage' or 'passion,' but the willingness to pursue a goal, even when it may be detrimental to your personal interests and career ambitions."

Tom Wehr, citing courage, says really good ideas are precious to their creators, and that's why some agents of change keep their masterpieces to themselves.

"Some people are afraid that if they show their idea to someone, it will be taken from them. And, believe me—that can happen," says inventor Wehr. "However, if you don't take that chance and you just leave it in a box (or in your mind), no one will benefit. Remember: if your idea is kept a secret it may never save a life."

Open Invitation

Agents of change come from all walks of life and work in every type of emergency services pursuit. Aside from their commitment to help those in trouble, the one characteristic they all share is a passion to push the envelope, to fully use the amazing new technologies now at our disposal. There is a drive for excellence, and they demand the same peak performance from their equipment as they do from themselves.

It's an exclusive club, but anyone can join. All it takes is a creative outlook, an expansive vision and a sincere appreciation of the possibilities that surround us. In that respect, each and every one of us, in our own way—no matter what our particular job—can become an agent of change.

Agents of Change: Five Common Traits

Visionaries come from all backgrounds and walks of life. However, there are some personality characteristics that seem universally shared among agents of change:

Restlessness

Complacency works to prevent change. But if visionaries sense a true need for improvement, they will usually feel restless until that situation has been made better.

Awareness

Agents of change always have their "antenna" up and typically exhibit an enormous appetite for knowledge from many sources—such as the latest info about cutting-edge technology.

Fearlessness

Sometimes it isn't easy being a freethinker. Fresh ideas haven't been endorsed by the masses yet. Remember, at first they laughed at Columbus—and most of history's other notable visionaries.

Adaptability

Accepting change requires flexibility. You can't embrace the future if you're still clinging to outdated methods and old modes of thinking.

Determination

Nothing worth doing comes easy, and being a visionary requires true grit—a steely determination to help others realize the benefits of change, even though they may first resist your efforts.



SOPS: GET IT WRITE THE FIRST TIME

Selecting a make and model of TIC is the most important aspect of establishing your department's thermal imaging program—however, it's not the only part. You must also implement its use and train any personnel who will be operating the camera.

Part of putting your camera or any other new equipment into service involves (or should involve) creating a departmental standard operating procedure (SOP) on the subject. SOPs not only provide a manual for incoming firefighters, they also establish department policies about a certain subject—in this case, thermal imaging.

Drafting SOPs often intimidates departments, possibly because no hard and fast rules exist about their creation. SOPs serve departments of every size and situation, so there's no "one size fits all" approach. However, there are some general guidelines that can help you write stronger SOPs—documents that will serve the department capably for years because of their breadth of vision and precise use of language.

Define The Document

You've got to start somewhere—and stop someplace, too. That makes defining the document's scope the activity that must precede all others. What's the purpose of this SOP? And what topics should it address?

One time-honored approach is the old journalist's set of basic reporting questions: Who?; What?; Why?; Where?; When?; and How? For your TIC SOP, that translates into "Who's going to be using this camera?" and "In what circumstances should the camera be operated?" and so forth. Asking such questions will help prompt answers about the scope of the document

you want to create.

You must also decide who will author the document. Writing skills vary widely among emergency services practitioners. Obviously, any personnel with demonstrated writing ability should be considered, as well as any officers who've proven themselves as good instructors.

Be Specific

Don't skimp on the details. The more specific you can be the better. Outline scenarios thoroughly. Responsibility assignments need to be spelled out. Procedures may require step-by-step explanation.

Your writer should keep in mind that what he or she is doing is essentially the same as technical writing—in which the main function is to explain something to the reader. Therefore, the best virtue an SOP writer can hope to have is clarity. The writer also needs to keep the intended audience in mind throughout the writing, and use terminology appropriate to that group.

One more thing: don't be afraid to use graphics. Most SOPs are written on the computer these days, so inserting a pertinent photograph into the document is a quick and painless way to enhance your SOP.

Get The Whole Picture

TICs are remarkable, but can't compensate for poor decision-making. In your SOP, firefighters need to be warned not to put blind faith in the camera's ability to save them on the fireground, where a variety of unpredictable factors are at

work. What is the backup plan if it goes out of service or power is lost during use?

On the other hand, TICs can do amazing things, and your SOP should reflect that, spelling out the different types of applications for which the camera can be used. (If you don't list all the usages, personnel might forget about certain ones, and limit the camera's utility.) It's also important to maintain flexibility. Your SOPs should be able to accommodate changes or new applications which will be discovered with increased use.

And don't forget the small stuff, either. Camera maintenance should be discussed in the SOP, along with other "housekeeping" matters, such as battery charging, maintenance and storage.

Read More SOPs!

One sure way to get better at something is to find others who do it well, then study how they get their results. In this case, that means analyzing the SOPs of other departments—not just reading their documents to check their content, but also examining the style of the documents and how they're assembled.

So where do you find these "good examples" to study? First, contact neighboring departments and others you know. Secondly, there's your computer. These days, many departments dedicate a portion of their Web sites to departmental SOPs. By running a simple Web search, you can sample SOPs from across the nation.

Other advice for writing better SOPs is to write more of them, on a variety of subjects. Ultimately, that kind of practice may not make your SOPs perfect, but will make them more effective and useful.



Join the Evolution®

Find Your Roots

Dept.: Leroy Fire District

Location: Leroy, N.Y.

Pop. 8,500

TIC Equipment: 1 Evolution 5000

Overview: The 65 volunteers of the Leroy Fire District respond to 400 fire calls annually in a mix of rural and suburban communities that extends 42 square miles. The district has used the Evolution 5000 about 40 times since purchasing it one year ago from Churchville Fire Equipment. In addition to helping save local property, the camera has saved the department valuable time, especially during overhaul and investigation work.

TIC Purchase: Having already gained significant thermal imaging experience by using cameras belonging to neighboring departments, the district also went through a dealer-assisted training program following delivery of its Evolution 5000. Quite satisfied with its performance, the department is considering buying another in the near future.

Other Uses: During one unique call, a power line was caught in a tree and the responders were concerned that the flames would spread to the adjacent structure. Using the camera, they could actually see the heat coursing through the roots of the tree in the ground below and determine that the building was safer than it first appeared.

Comment: "We looked at numerous competitors, but when it came down to the bottom line, the features that we got for the price definitely made it superior to any of the other small-format cameras. Some of the things that sold us were the numerous other MSA products at the department and the really good service we've had through MSA. That was pretty important, too."

—Assistant Chief Ryan Lokkin

Leroy Fire District
Leroy, N.Y.

Evolving with Evolution TICs

Dept.: Gresham Fire Department

Location: Gresham, Ore.

Pop. 150,000

TIC Equipment: 6 Evolution 5000s

Overview: Serving the urban population of Gresham, on the eastern fringes of Portland, this department provides contract services with the cities of Fairview, Troutdale and Wood Village. With 6 stations and 80 paid firefighters, the department handles 12,000 calls annually, 70 percent of them EMS responses.

TIC Purchase: The department first purchased a helmet-mounted TIC six years ago and then eventually fundraised its way to an Evolution 4000. In Feb. 2004, through additional grant money, the Gresham FD was able to purchase (through Sea-Western, Inc.) one Evolution 5000 for each engine. The department was also able to send personnel through thermal imaging training at the Fire Department's Instructors Conference (FDIC) in Sacramento, Calif.

Other Uses: Using thermal imaging to investigate dust fires in ventilation systems saves the department time and money because crews aren't forced to tear the system apart in order to locate the smoldering debris. And when responding to late-night traffic accidents, occupants of a vehicle are oftentimes ejected into dense brush area, so scanning for victims with the TIC has been a tremendous help.

Comment: "When our neighboring city purchased MSA cameras, we were able to combine our buying power with theirs, which lowered the price. We already had the Evolution 4000 and we wanted to stay with MSA. We've gotten some good use out of the camera. It's definitely a great tool."

—Lieutenant Mark Robison

Gresham Fire Department
Gresham, Ore.

Meet 4 Departments That Already Have!

Meeting the Challenge

Dept.: Norfolk Fire Division

Location: Norfolk, Neb.

Pop. 30,000

TIC Equipment: 2 Evolution 5000s

Overview: Primarily responsible for 110 square miles of response area, the department also responds to a mutual-aid territory stretching through 1,300 square miles of Alcorn Valley, in northeast Nebraska. With 30 reserves backing up the 31 career firefighters, the department makes 2,000 runs per year; about 85 percent of which are EMS calls.

TIC Purchase: During the purchasing process, the department was impressed by the rugged portability of MSA's cameras. The department ultimately settled on a pair of Evolution 5000s, financing the purchase (from Fireguard, LLC) mostly through grant funds.

Other Uses: Prior to obtaining the cameras, the Norfolk FD had the opportunity to observe the utility of thermal imaging through the experiences of neighboring departments. During one call, a victim trapped in an elevator shaft between floors was located and rescued by using the silhouetted imaged displayed on the TIC.

Comment: "It's a good solid camera at a competitive, economical price. That was probably the biggest selling point. One thing about selling to firefighters: you've got to have a rugged and dependable product that's simple to use. The Evolution 5000 has really met that challenge for us."

-Chief Shane Weidner

Norfolk Fire Division

Norfolk, Neb.

Voted Most Popular

City of Tonawanda Fire Department

Location: Tonawanda, N.Y.

Pop. 16,500

TIC Equipment: 1 Evolution 5000

Overview: In a small community situated between Buffalo, N.Y. and world-famous Niagara Falls, this department answers 2,100 alarms per year within 4 square miles of response area. The combination crew offers HazMat, extrication and rescue services (ice, surface water and confined space), in addition to basic fire protection.

TIC Purchase: When different manufacturers brought their cameras to Tonawanda, the department didn't just handle the products—its personnel ran the different models through intense training sessions with simulated smoke and live fire. Crew members were allowed to pick the best TIC for the department's needs, and through a popular vote, the Evolution 5000 was selected.

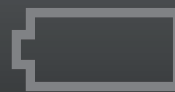
Other Uses: During a 3 a.m. call involving a 10,000-square-foot warehouse with a light haze of smoke inside, the Evolution 5000 quickly found the source of the smoke. The culprit, a burned-out fan motor, was located very high up in the building—a difficult location to inspect properly without the camera.

Comment: "The crews like it and I think it's a good tool. In fact, I'd like to see us get a few more of them. The fireground officers need access to one outside while the crews inside are utilizing it for initial fire attack or search and rescue. It would be invaluable for the RIT team to have one, too."

-Chief Charles Stuart

City of Tonawanda Fire Department

Tonawanda, N.Y.



VOLUNTEER EMPHASIS: RECRUITING

Recruitment: Master the Rules of Attraction

According to A Needs Assessment of the U.S. Fire Service, published in 2002 by the Federal Emergency Management Agency, approximately 73 percent of the fire service is comprised of volunteer firefighters. Nurturing that volunteer spirit is the job of recruitment.

Unfortunately, these days there are more demands on people's time than ever, and more competition for the free time of potential volunteers. And the nature of the fire service has changed drastically, too. Emergency services work has grown more varied and complex, requiring extensive training—a potential discouragement to some applicants.

A result of all this is an alarming drop in recruitment levels. In its 2004 Issues Assessment Survey, the International Association of Fire Chiefs noted that of 863 departments responding to its survey, 493 departments listed staffing issues—including recruitment—as among the most common issues troubling America's fire departments.

5 Strategies

Despite its challenges, recruitment remains important, on several levels. Not only does recruitment help a department staff its core functions, but it also boosts that department's response capability. Of course, even though you may appreciate the value of increasing recruitment efforts, it could be difficult knowing where to begin. Here are some basic ideas worth exploring¹—all can be achieved locally for little or no money.

• Volunteer A Story

Help the editor of the local paper research and write a feature story on what it is like to be a volunteer member of your

fire or emergency services department. Be sure to include information at the end about becoming a volunteer.

• Strength In Numbers

If your department is small or limited in resources, partner with other agencies around you on a collective recruitment campaign.

• Check Your Own Back Yard

Survey your own members on how they heard about your organization and why they



joined as a volunteer. Use this information to decide what recruitment efforts are successful and where you can improve.

• “Hire” A Recruiter

Assign a member to be a recruitment coordinator to manage your recruitment programs and activities. Also, for larger departments with more in-depth programs, a recruitment committee may be necessary to manage the variety of program activities.

• Show And Tell

Set up a recruitment booth at local fairs, community events and festivals. Take your equipment and apparatus if you can to show potential members what being a volunteer is all about.

Precious Resources

Need more help jump-starting your department's recruitment campaign? If so, there are plenty of sources of recruitment information available—most of them free of charge and as close by as your computer.

Start your info search with the National Volunteer Fire Council (NVFC) and an all-purpose media-outreach kit produced in conjunction with the United States Fire Administration (USFA). *New Tools for the Volunteer Firefighter* is packed with useful materials, such as a guide to working with local media, sample press releases, radio PSA scripts and print ads with camera-ready artwork. Most of these tools can be customized with your department's name and contact information.

The NVFC also established a nationwide phone-based recruitment campaign as another means of supplying the public with information about volunteer firefighting. The *1-800-FIRE-LINE* program is structured around a toll-free info line that potential recruits can call to learn more about volunteering in that state. (NVFC; 888-ASK-NVFC; www.nvfc.org)

The USFA's own report, *Recruitment and Retention in the Volunteer Fire Service*, looks at the perennial problems that plague recruitment and retention efforts in the vullie ranks. The report is offered free of charge at the USFA's Web site, in its Publications section. And in that same section, for agencies delivering emergency medical care: the Emergency Medical Services (EMS) *Recruitment and Retention Manual*. (USFA; 301-447-1000; www.usfa.fema.gov)

¹Recruitment tips from *New Tools for the Volunteer Firefighter*, published in May 2002 by the National Volunteer Fire Council and the United States Fire Administration.



Did You Know?

For most departments, a big part of choosing the right thermal imaging camera is studying the product specification sheets. But the spec sheets don't always tell the whole story. With that in mind, Flash Point asked MSA to reveal some little-known facts about the Evolution® 5000 camera. We discovered a few items you might find interesting.

You may have known that the Evolution® 5000 has built-in RF shielding to resist the effects of radio-frequency interference on the camera, but did you also know that MSA tests the camera beyond the FCC and European standards for radio frequency interference—to endure three times the required exposure, giving it more than enough protection to share the fireground with today's powerful radios?

Rated to IP 67, a new Evolution® 5000 can be submerged under one meter of water for one-half hour and still function normally! It also has a completely sealed battery compartment, to prevent water leakage.

TICs are usually designed to survive a 6-foot drop, but MSA takes this even further. The Evolution® 5000 is rugged enough to withstand a 6-foot drop onto concrete three times, from random orientations. And here's the kicker: MSA's internal qualification requires that the camera still has to pass the water-immersion test immediately afterward! (Caution: TIC users should not abuse any thermal imaging cameras or conduct such tests themselves, although it's good to know that this level of testing is being done.)

There is no current specific NFPA standard on thermal imaging cameras, but the Evolution® 5000 is voluntarily tested to several simulated NFPA and military tests for durability and thermal resistance.

The Evolution® 5000 utilizes lithium ion batteries, which provide more than two hours of run time from a very small, universal-form battery. Because any type of battery performs less efficiently when exposed to very high or low temperatures, the Evolution® 5000's battery is integrated into the handle design, so the battery is never left exposed to the elements.

The Evolution® 5000 has an extremely functional heat seeker in both high- and low-temperature environments. While many cameras don't incorporate the heat seeker into lower temperature situations, the Evolution® 5000 does, allowing departments to realize more utility from the instrument in everyday use.

The Evolution® 5000 camera also displays a different temperature gauge for high- and low-temperature environments. Instead of using a single 1,000-degree display at all times, the temperature graph on the Evolution® 5000 ranges from 32 degrees to 300 degrees Fahrenheit in low-temperature mode, giving the user a better frame of reference for noticing subtle temperature changes.

Although the camera is small, the features of the battery door are large and obvious, making it easy for a gloved firefighter to change the battery.

And did you know that the Evolution® 5000 floats? That's right—during water-immersion testing, MSA engineers actually have to weigh down the camera to keep it submerged!

That's a lot of facts, but there's plenty more to discover about the Evolution® 5000 and MSA's other thermal imaging cameras. Get the entire picture today by contacting your MSA distributor or by calling **1 (877) MSA-FIRE!**



The Evolution® 5000 is the only TIC in the fire service with a shutter indicator!

Training Talk

It's sad but true—a little knowledge can be a dangerous thing.

Firefighters need adequate equipment, as well as the training to ensure they use that equipment properly.

Thermal imaging is no exception. TICs are powerful tools, but if handled incorrectly, they can create an incorrect impression about the safety of a fireground situation. At the very least, misuse will prevent a department from reaping the full benefits of the technology. And although manufacturers routinely include product manuals with the thermal imagers they build, the technology is varied and complex enough to advocate more hands-on training.

SAFE-IR (the "IR" part refers to InfraRed Technology) sensed a need for more involved thermal imaging and set about developing a practical curriculum that could be taught to firefighters in a concentrated setting. Since 1996, SAFE-IR has trained hundreds of departments in 48 states. FlashPoint spoke with SAFE-IR about SAFE-IR's approach to thermal imaging training:

FlashPoint: Why is in-depth hands-on thermal imaging training needed at fire departments?

SAFE-IR: We equate the thermal imaging industry to the automobile industry in many ways. Car dealers are in the business of selling cars. They are not in the business of teaching customers how to drive. They will give you a demonstration on the features of the vehicle, but they will not give you driving lessons. Operators of TICs must have a full understanding of all of the features of their specific TIC and be able to interpret the image that is displayed and

ultimately utilize this information to make safe, sound decisions.

Explaining the camera's features may be accomplished by the manufacturer's rep.

Understanding how these features function and properly interpreting them can be accomplished only with camera-specific live fire training. That's where SAFE-IR comes in.



FlashPoint: What are the most common mistakes departments make when using thermal imaging equipment?

SAFE-IR: Fire departments are underutilizing their TICs, in part because of the fire service's reluctance to change. Another reason is they do not fully understand the TIC's full potential. Our programs have proved to fire departments of all sizes that once the user understands the features and characteristics of their specific camera, that knowledge should then be combined with the image interpretation and tactical application that SAFE-IR teaches in both the classroom and then in hands-on live fire scenarios.

FlashPoint: How do you match firefighters up with thermal imaging

instruction that best suits their skills as firefighters?

SAFE-IR: The skill level of a department's membership is often proportional to the frequency of training and fire activity, combined with the individual member's time in the fire service. SAFE-IR's instructors realize this. The program is geared to teach firefighters the advantages of thermal imaging technically and apply them tactically on the fireground. Our low student/instructor ratio in the hands-on live burn portion allows the instructor to recognize the student's individual potential by giving him or her personalized instruction in both camera-specific image interpretation and tactics, while building confidence through creating a positive learning experience with firefighter safety the priority.

FlashPoint: How long does it normally take to train a department?

SAFE-IR: The basic course offering is two sessions—classroom and live-burn—over two consecutive days. We customize trainings for the department's needs. We have trained between 500 and 800 members of fire departments. Several cities include the money for training with the funding to purchase the camera, and as they purchase more cameras, we come in to train the companies that receive them. Some require all members to be trained; others just want company officers to be trained. We work closely with departments to help them get the people trained that they want trained and the members who will use the cameras.

FlashPoint: Please outline a typical SAFE-IR training scenario.

SAFE-IR: Typically, we're contacted by the department or the sales-

Quick Facts

**The Evolution®
5000's INSTANT-
ON feature:
Your TIC is ready
for business
within 1 second!**

person because the department wants SAFE-IR training. We work with the department to give them the basic two-session course or a customized program. Proposals are entered for approval by the department, dates are selected, instructors are assigned, and travel is booked. Trainers are issued a training package. They make contact with the department and then the training is done. Upon completion, the department is contacted to make sure they were satisfied with the training given. (Visit the SAFE-IR Web site at www.safe-ir.com to see a course description.)

FlashPoint: Can you describe a scenario in which firefighters' lack of sufficient TIC training put them in jeopardy on the fireground?

SAFE-IR: One took place several months after we gave an informational lecture about TICs and the need for training. SAFE-IR was contacted by an individual who had attended the lecture. He informed us that everything we had warned about had occurred during a response. There appeared to be fire in the cellar of a residential occupancy. There was heavy smoke but no visible flames showing from the outside. Two young, eager firefighters advanced into the

basement in search of the fire, armed with a charged hose line and a TIC. Their lack of firefighting experience, coupled with their inability to properly interpret the information the TIC was giving them and navigate with it, caused them to quickly move into a rapidly deteriorating situation without ever recognizing it or knowing their position. As a result, they advanced very quickly into the basement and failed to open the

“Thermal imaging cameras have the potential to take you deeper and further more quickly than ever before. And if you don't know where you are and what you are imaging—the results could be disastrous.”

SAFE-IR

hose line. They quickly found themselves engulfed in fire and not certain of the way out. Fortunately, these firefighters were lucky. A backup line was quickly put into place and they were saved.

FlashPoint: As the department is trying to develop its TIC program, is SAFE-IR able to offer any guidance in the creation of thermal imaging SOPs?

SAFE-IR: Yes! SAFE-IR works with the department, observing its current tactics and procedures and offers suggestions on how

the TIC may be integrated. We also put the department in touch with other departments that we have trained that may share similar characteristics. All of the SOPs are based around the SAFE-IR thermal imaging training programs.

FlashPoint: Why do you feel it's essential that SAFE-IR be able to maintain its professional objectivity and not endorse the products of any one camera manufacturer?

SAFE-IR: Thermal imagers for firefighting are all functional and they each have a place in the fire service. Thermal imaging is here to stay. Like buying an automobile, the reasons for buying a particular brand of thermal imager may vary. These reasons may include relationships or experiences with manufacturers or salespeople, evaluation results, option preferences, size or even price. A department may make a TIC purchase because another department is happy with that brand or model. SAFE-IR, Inc. has one priority: firefighter safety. And with that in mind, SAFE-IR makes two recommendations:

- 1) Get a thermal imager; and
- 2) Get camera-specific live fire training.



Decision **Time.**

One of Your Most Critical
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Choosing the Right TIC.

When every second counts, you need fast, reliable performance from your most critical tools. That's why it's so important to choose the leader in thermal imaging performance – **MSA's Evolution[®] 5000 Thermal Imaging Camera.**

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- High-impact construction and an internally housed battery system protect the camera's crucial components from the harsh firefighting environment.
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