

EVALUATION of “VISIBLE”

By

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A little background first. I have been with BFD for 24 years working USAR, Haz-Mat, Engine and Truck duties. I have also been a volunteer with a very small rural department for the same amount of time. I definitely believe that my volunteer time has helped me in my paid job. I also serve on Texas Task Force 1, a FEMA USAR Team. Last but not least I have been an Adjunct Instructor with Texas A&M for about 3 years, working in the Marine, Industrial and Haz-Mat areas.

This has absolutely NOTHING to do with this evaluation except to establish some small amount of credibility and mention that through my supervisor at TEEEX (<http://www.teex.com/esti/>) I was put in touch with Mr. Petter Hagglund and arrangements were made to test this device. With all this out of the way I will proceed to present the results of our VERY unscientific test.

When first in contact with Mr. Hagglund, I was as skeptical as anyone else, but I always welcome a chance to prove to a manufacturer that a firefighter can destroy anything. It has been said that if you put a firefighter in an enclosed room with a steel ball, you can tell what shift that person is on by the out come. A-Shift will sit and stare at it for hours, B-Shift will break it and C-Shift will loose it. I am on B.

At this time in Bryan we have a majority of young (under 5 years) people so we are doing much training, especially with RIT. We also have access to an old Coca-Cola bottling warehouse to play in. This building is approximately 8,700 sqft with some 5,700 of it warehouse and the remaining 3,000 made up of 2 stories with offices. After borrowing a smoke machine we filled this structure with smoke until it was pushing out the eaves and cracks.

A rescue manikin was dressed in bunker gear complete with SCBA with VISIBLE attached. The manikin (we will call him Ron) was placed in an upstairs office and a RIT team was dispatched to locate Ron. In the dense smoke a flashlight was useless. Since the smoke was cold and Ron was at room temp, Thermal Imaging Cameras (TIC's) were about as helpful as the flashlights. They did however find the safety personnel stationed inside. The flashlights ranged from the orange box lights everyone has on their apparatus to the orange survivor lights we clip to our SCBA and bunker gear. It made no difference. At about 6" you could make out some type of silhouette from Ron. Again the process was repeated with PASS activated. The results were pretty much the same. The sound bounced everywhere and the little red light from the console wasn't visible much better than without.

Last of all we turned on VISIBLE. In this atmosphere you could see the glow from approximately 8' to 10' and make out the device at about 3' to 4'. The PASS being activated at this time expedited the process even more with the glow.

After each test Ron was relocated to maintain the degree of difficulty.

What started out as a gimmick was now getting everyone's attention. The firefighters wanted Visible on the officers so they could track them when they (officers) take a TIC go in the door and forget the firefighters can't see what they do. The officers wanted them on firefighters to assist with team integrity. The city Safety Manager was even invited, along with Fire Admin to play with these devices.

NOW, we knew what they would do in theatrical smoke, it was time for the real test. We could only think of one place to torture these things.

The dreaded ship at Texas A&M Fire Training School Marine Division

This is an actual house superstructure from a WWII Liberty ship. A two deck, thirteen room Class A fire OVEN! Not only can you make smoke so thick you can't see a flashlight, you can heat it up to where experienced firefighters don't want to be in it.

For this experiment we followed all the NFPA 1403 rules with additional hose lines, alternate water sources, walk through's, safeties, EMS, RIT teams and so forth. TIC's were used also as an additional safety to track personnel and their movement. PARR's were called every few minutes and scenarios were played out.

At the conclusion of this training we had hot sweaty tired firefighters who wanted no more, and the VISIBLE that produced the same results as the previous test!

At this time we are still doing some work with them in Marine Training. The short comings we found were;

1. Could colors could be changed to denote companies, officers... I understand this cannot be done.
2. There is a switch that changes VISIBLE to a "twinkling" (flashing) mode. This switch is inside the battery compartment and requires disassembly. The switch needs to be relocated to the outside and made bigger so that it can be changed at the scene more easily. The "twinkle" could be used to designate officers.

The units fit the SCBA well, both 4.5 and 2.2 thirty-minute bottles. They also fit our 911 seats easily.

At this time I understand that not all SCBA manufacturers will approve use of them on their SCBA. I also understand that NFPA has no standard for this device and leaves the approval to the end user. However, one must consider that the manufacturer of the product it is attached to has final say with their liability.

To end all this boredom I shall conclude as saying that this is a very interestingly simple device that I feel fills a large void in the safety and survival of firefighters. The device is well made and functioned well in every environment it was tested in.

Again, the only improvements I could see were the ones previously mentioned and the price (I was told around \$250.00 US) makes it very attractive to all sizes of departments.