From: Costanza, Jason

Sent: Monday, September 13, 2010 7:05 AM

To: Carter, William

Subject: TurboFlare Review

Bill,

Let me know if you need something more than this. I am going on days off now, but I will leave the flares for you at the Watch Commanders Office when I return to work on Thursday September 16th.

Thanks.

Jason

## **TURBOFLARE REVIEW:**

I am currently employed as a police officer by the City of San Diego. I am assigned to the Traffic Division. I had the opportunity to test a set of TurboFlare "SOS" electronic road flares in the field over the past month. I utilized the flares at collision scenes for road and lane closures, on traffic stops to create a safety buffer between I, the officer, and moving traffic, and as a means of closing lanes and creating a safety buffer for tow truck operators, and officers conducting vehicle inventory searches, during vehicle impounds occurring on city streets.

I detailed my findings (with some questions) below. Without knowing the cost of each unit, I think the TurboFlare is an overall much better option when compared to the incendiary flares currently issued by the San Diego Police Department.

The Turboflares were reliable, long lasting, easy and safe to use. The Turboflares were easily stored within, and retrieved from, the trunk of my police car. Conversely, the incendiary flares currently issued present a myriad of safety concerns during storage and deployment including explosions and burns. They have a short lifespan and require constant replenishment. This process requires both time and attention from officers and repeatedly exposes officers to contact with passing traffic, with great potential for injury. The waxy film that coats the incendiary flares is messy and permanently stains police uniforms and equipment. They are prone to water damage during storage and use and are a source of environmental waste (frequently left on our roadways).

I originally thought the "swirling effect" produced by the LED lights would confuse drivers. However, when deployed in the roadway, not a single motorist inadvertently or intentionally crossed an established TurboFlare pattern, a testament to the product's superior degree of visibility. I was surprised and impressed by the distance from which the TurboFlares were visible. The angled design adds to the product's visibility.

As a result, I never saw a vehicle drive over a TurboFlare and I'm unsure as to how it would hold up if driven over. (Are they guaranteed against crushing? And if so, does the manufacturer replace damaged flares?) (What's the potential for them to fly through the air and strike objects or people if driven over?)

The large push button switch was easy to locate and allowed for great ease of overall operation (on/off). They were never unintentionally activated while stored in my police car.

The plastic body legs were more easily than I thought they would, a result of dropping the flares into place and sliding them along asphaltic-concrete surfaces. There were no issues as far as the TurboFlare moving on the roadway once in place. The legs gripped the roadway surface well.

I did not experience the need for a battery change, so I am unable to comment on the ease of that process. The batteries seem to last for a long time, as I didn't notice any decrease in LED light output intensity over time.

The orange storage container could be slightly more durable/ resistant to crushing (from the top), however, it fit well into my Ford police trunk insert and held up well over all.

I deployed the TurboFlares during hours of darkness only (to coincide with my work hours). The flags seemed more appropriate for daytime use when the LED lights may be less visible. As a result, I didn't use the flags. There wasn't a need for them- the LED lights worked great.

I didn't have an opportunity to use the TurboFlares under adverse weather conditions (Are they waterproof?)

Jason Costanza # 6000 SDPD – Traffic Division