Orchard Farm Fire Protection District Standard Operating Procedure

Division: 200 Emergency Operations
Section: 202 Fire & Rescue
Subject: 202.26 Thermal Imaging Camera (TIC)

Supersedes: N/A

Approved By:

Date: 05/22/2013 Date Last Reviewed: N/A

PURPOSE:

To define the District's standard use of a thermal imaging camera (TIC)

RESPONSIBILITY:

All District Personnel

PROCEDURES:

The benefits of thermal imaging technology impact just about every aspect of firefighting. Thermal imaging is not, however, a technology designed to replace current firefighting tactics. Rather, the TIC is a tool that allows firefighters to be more effective and make better decisions. It allows the user to *see* through dense smoke and darkness by detecting and displaying the relative temperatures of objects, it does not display or amplify light.

Some of the many uses for the TIC include:

- Search and Rescue
- Scene Assessment
- Locating the main body of fire
- Checking for fire extension and locating hot spots
- Identifying potential flashover situations
- Determining ventilation and entry points
- Hazmat scene assessment
- Determine the location of Duct fires
- Overheated motors or fluorescent light ballasts
- Detecting hot spots on large roof areas

When dealing with a container, such as a 55 gallon drum, the TIC can show the amount of liquid in the drum by detecting the frost line.

When responding at night to a person in the water, although it will not penetrate the water, it will detect any part of a person above water.

Primary Application

The TIC can be best utilized in a structure fire by the Captain or acting officer looking over the shoulders of their crew to scan their surroundings for victims, extreme heat buildup, and the seat of the fire. Hot spots detected by the TIC may be surface heat considerably higher in temperature then the surroundings area, which may appear to be fire behind a wall or panel. Use a side to side and up and down motion during operations.

THE FOLLOWING SECTION SHALL BE MODIFIED WITH THE INSTRUCTIONS FOR USE AND MAINTENANCE REQUIREMENTS FOR THE SPECIFIC TIC PURCHASED BY THE DISTRICT.

A. The cameras are stored in the apparatus chargers on their specific apparatus. The cameras, including carrying straps and accessories must be completely dry before returning them to the charger or the case so moisture is not trapped inside.

B. In order to deploy the camera, remove it from the charger and firmly grasp the pistol grip handle. The shoulder strap should be utilized in order to lessen the chance of the unit being dropped.

C. To turn the unit on, push the large GREEN button on the left side of the unit. It will take approximately 15 seconds for the unit to warm up; self-check and become operational.

D. Once the camera is active, an image will be visible on the screen. Cool areas appear dark while heat sources appear white. Sudden white out of a scene may signal rapid increase in room temperature with flashover imminent or occurred. The image sensor will detect reflections from glass, mirrors, and polished or painted surfaces. The actual source of the image may be directly opposite that point.

It shall be the responsibility of the Captain or Acting Officer to use the TIC and to ensure that it is properly returned to the charger unit following use.

Maintenance

Batteries should be rotated weekly and charge as necessary. Screws on the camera should be checked periodically for tightness.

After the camera is used on an incident it should be thoroughly cleaned and dried before it is returned to its airtight case or vehicle charger and the batteries fully charged if not being placed in the vehicle charger.