



STANDARD OPERATING GUIDELINES

SUBJECT **Thermal Imaging Camera (TIC) Procedure**

REFERENCE NUMBER SOG-06-05

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Signature of Approval

Frank E. Wright
Frank E. Wright, Fire & Rescue Chief

TO: All Fire and Rescue Department Personnel

**FROM: Frank E. Wright
Deputy Chief**

**Jimmy Williams
Chief Station 1**

Purpose: To establish procedures/guidelines for the use and effective deployment of thermal Imaging Cameras in a way to provide the most protective for fire & rescue personnel and the public. This document will also be used to assist in training fire & rescue personnel.

Policy: It shall be the policy of this Department to utilize the TIC, when available, in every structure fire and any other situation where it will enhance the safety of fire & rescue personnel and service to our citizens.

Procedures:

- A. A Tic will be carried in the cab of station 1's first due Engine. (The department/stations may add other TIC in the future). Personnel need to be familiar with location of TIC and accessories on apparatus.
- B. All personnel who use the TIC must be thoroughly trained in its operation and use.
- C. All who use the TIC in a structure fire (IDLH) must be FF I /Yellow or green tags.
- D. The OIC of the apparatus with the TIC will determine the use/deployment of the camera. This should be communicated/coordinated with the incident commander.
- E. If the initial entry crew did not use the camera, then the second crew can use it or it is to be used by the Rapid Intervention Team.
- F. The camera has the potential to inspire overconfidence because it allows you to see in an environment that normally you could not. **PERSONNEL MUST USE BASIC FIREFIGHTING SKILLS AT ALL TIMES.** The TIC is an additional tool and does not replace firefighting skills, knowledge, and experience. The TIC

- is also a machine and could fail at any time. **REMEMBER AND USE STANDARD FIREFIGHTING SKILLS AT ALL TIMES.**
- G. The TIC will be used with all other fire ground policies and procedures. The use of the camera does not allow crews to work outside of the department policies, procedures, and safety guidelines.
 - H. Camera operators must be aware that they have a tendency to move faster than the rest of the crew who are operating in poor visibility. A crew must always work in pairs and keep in touch/communication with all crew members.
 - I. If at all possible, interior crews using the camera should have three firefighters.

Thermal Imaging Camera Uses:

- A. To aid in size-up of the structure before the camera is used inside.
- B. Provides safer navigation in a space where there is poor to zero visibility due to smoke and darkness.
- C. Allows personnel to “see” in zero visibility, which is very useful during traditional search and rescue techniques. The primary search of the interior of a building will be done safer and more efficiently by utilizing the TIC.
- D. Enables suppression crews to execute a safer, faster, more effective interior attack. The shortest route to the fire, holes in the floor, and obstacles in the structure can be determined and located more efficiently.
- E. Reduces fatigue of interior crews by increasing efficiency in searches and suppression activities.
- F. Allows Rescue/Rapid Intervention Team(s) to quickly and efficiently locate downed firefighters.
- G. May be used to determine fluid levels within a container, which could be useful during an incident involving a hazardous material.
- H. Can be used as a tool to detect hot areas/spots during overhaul or when trying to find a fire or source of a smell of smoke. Remember, however, that the TIC cannot penetrate most construction materials including drywall, plaster, and lathe, concrete, glass, or plastic. Personnel are to rely on basic overhaul procedures and not solely on the TIC.
- I. May be used as a search tool in open areas day or night.
- J. The TIC may be requested by other agencies or jurisdictions. Depending on the situations (emergency or non-emergency) it may be handled as an incident or public service. If we are assisting the police, then be sure to coordinate activities with the police officer in charge to ensure personal safety. The duty officer is to be notified of any request for the TIC.

Maintenance:

- A. The camera and accessories shall be checked as part of the daily equipment check.
- B. The camera is to be kept clean and ready for use at all times. Clean with a damp rag or nylon brush with water and mild soap if needed. Do not submerge the camera in water.
- C. Screws and straps on the camera are to be checked to ensure tightness.

- D. Batteries are to be rotated weekly and charged as necessary. The battery in the camera should always have at least a half a charge on the battery gauge.
- E. All personnel are to read the manufacturer's manual and follow recommended maintenance.
- F. If TIC sustains any damage or operational problems are found, notify the duty officer and the station chief as soon as possible so repairs can be made.
- G. After the camera is used on an incident; it should be thoroughly cleaned and dried, inspected and checked for proper operation, and returned to service with charged battery.

Safety Notice:

The TIC must be used with the understanding that it is only an electronic device and it can fail. Firefighters must plan for this possibility by carrying flashlights, maintaining contact with a wall, a hose line, employing a tag line, or other routine methods for remaining oriented to location and position of exits in a zero visibility environment. Crews must continue to use standard firefighting practices. **REMEMBER THE BASICS!**

If there are any questions please contact Chief Williams or me.