

New Durham Fire Department Standard Operating Guidelines (SOG)

SOG 308 Thermal Imaging Camera Deployment

PURPOSE: To identify the strategic and tactical approach for the deployment of thermal imaging cameras (also referred to as TIC's).

SCOPE: Structural operations with suspicion of fire.

SPECIFICS:

SIZE-UP

The TIC may provide valuable information during size-up, which can assist the Incident Commander in determining the strategy and formulating the incident action plan. Early identification of tactical priorities/needs can prove beneficial in placing initial and subsequent attack lines. When a company officer or incident commander arrives on the scene, one of the first challenges is to identify the location of the fire. A TIC can save a great deal of time by helping to pinpoint a concentration of heat within a particular area of the building, especially in large commercial or multistory structures. An incident commander, armed with this knowledge, can better direct firefighters regarding their point of entry and plan of attack so as to optimize their resources.

Even before firefighters enter a burning structure, the incident commander or company officer can accomplish a great deal from the exterior with the aid of thermal imaging technology. Some factors that can be assessed from the outside include finding the seat of the fire, observing changing or spreading conditions, identifying critical building construction features and identifying conditions that could threaten structural integrity. A sector officer will also benefit from this information in assessing the operational objectives, progress and needs within the sector.

DEPLOYMENT

The early and rapid deployment of the Thermal Imaging Camera (TIC), while operating in an Offensive Strategy, may enhance the visibility in a visibly diminished atmosphere, thus increasing fire fighter safety and survival, as well as improving the survival potential of our customers.

The TIC can also be deployed while operating in a Defensive Strategy. It can provide the Incident Commander or Company Officer with valuable information during size-up.

Early identification of structural compromise, fire location in the structure, e.g. attic, and identification of severely threatened exposures would provide valuable information when determining the strategy. This information would also aid in identifying key tactical positions/needs. By deploying a TIC to the exposures, information could be obtained as to the extent of impingement to the exposed structure, early identification of avenues of fire spread and possibly any hot spots, which could cause extension.

It shall be the responsibility of the Company Officer/Command to rapidly deploy the TIC in a visibly diminished atmosphere or in an atmosphere that may suddenly become visibly diminished.

PRIMARY APPLICATION

The primary use of the TIC for the fire department is for conducting search/rescue and crew accountability tasks. The use of a TIC can prove to be a useful tool during search and rescue tasks by reducing the amount of time it may take using standard search techniques. This will lead to a more effective and organized search, while quickly identifying the fire. By locating the fire quickly, we will better be able to determine our tactical priorities and rescue priorities (do we remove the victims from the fire or remove the fire from the victims).

The TIC will enhance the ability to maintain crew accountability by increasing the vision capabilities of the operator/Company Officer. This will ultimately lead to enhanced fire fighter safety while working in a hostile environment. This does not replace the accountability tasks required of the officer and each individual operating on the fire ground. We must stay together in complex situations and/or structures in order to enhance our survival.

While the TIC may enhance the operation of the crews on the fire ground, it is imperative to realize, that with any tool, there are limitations. TIC deployment into the operation should not propagate a sense of security. Crews and TIC operators must be aware that the TIC may malfunction and sole reliance on the camera is not prudent fire fighting. Additionally, it should not replace or violate the core of our experience, training, safety procedures, or standard fire fighting practices/principles. As always, safety must be the top priority.