

BETHLEHEM POLICE DEPARTMENT GENERAL ORDERS

SUBJECT: TRAFFIC RADAR PRECAUTIONS CALEA STD. NO.

AMENDS/SUPERSEDES: REVISED:

EFFECTIVE DATE:9/2007

APPROVED:9/2007

NOTE: In any civil action against any individual, agency or governmental entity, including the State of New Hampshire, arising out of the conduct of a law enforcement officer having the powers of a peace officer, standards of conduct embodied in policies, procedures, rules, regulations, codes of conduct, orders or other directives of a State, County or local law enforcement agency shall not be admissible to establish negligence when such standards of conduct are higher than the standard of care which would otherwise have been applicable in such action under State law. (RSA 516:36).

INDEX WORDS: Radar; Microwave Emissions

I. POLICY:

The purpose of this policy is to set forth safety procedures to be observed by officers when operating police traffic radar devices.

II. DISCUSSION:

The Police Department wishes to be sure that our officers are not exposed to unnecessary hazards at any time on the job. Police traffic radar sets, like the power lines over your head, microwave ovens, your portable two-way radio, cellular telephones and many other devices in common use today, emit electromagnetic radiation. There is little long-term data available on the effects of various exposure levels of electromagnetic radiation on human beings. The American National Standards Institute (ANSI) and the Occupational Safety and Health Administration (OSHA) have developed recommended limits for exposure to this type of radiation.

A. The Battelle Laboratories in Columbus, Ohio undertook a study which was published in 1990, and tested both traffic radars and portable radio equipment, CB radios and cellular telephones in standard marked and unmarked patrol cars.

1. They found that the traffic radars tested emitted microwave radiation far below the standards set by either ANSI or OSHA, and that there was no measurable radiation inside the patrol car passenger compartment when the radar antenna was pointed through the windshield on an axis of 45 degrees from the center point of the patrol car back to the center position. When the antenna was directed through the patrol car out the rear window, the only measurable RF was on a straight axis from the center of the antenna. Measurements taken directly in front of the radar antenna were still well below ANSI or OSHA limits.
2. The radars were also tested for leakage, and no measurable leakage was detected. Battelle concluded that the radars tested never exceeded the exposure limits even with the probe placed less than 6 inches from the antenna lens. It was found that two-way portable radios generated more radiation than radar sets, in some cases in excess of the ANSI limits but still within the OSHA standards. Since these standards are based on exposures of more than six minutes at a time, and it is seldom if ever that a transmission with a portable radio would exceed six minutes, this was not found to be a case for concern.
3. Recently, the Institute for Police Technology & Management (IPTM) at the University of North Florida conducted tests on police traffic radar sets in common use, and determined that none of the units tested exceeded ANSI or OSHA limits, and again concluded that two-way radios and cellular phones generate more electromagnetic radiation than radar sets.
4. Nevertheless, persons using devices which generate microwave radiation, including police radar sets, can minimize any possible health hazard by observing certain commonsense precautions.

II. RADAR SAFETY PRECAUTIONS

- A. Personnel operating traffic radar should observe the following:
 1. Do not operate radar equipment when cover panels and protective shields have been damaged or removed.

2. Do not operate the unit when not checking for compliance with traffic laws.
3. Avoid directing the antenna in such a manner that it is transmitting directly at the officer.
4. With two-piece radar sets, the antenna should be mounted on the outside of the vehicle, whenever practicable. If it is mounted on the dashboard, the antenna should be pointed so that it shoots straight out the windshield.
5. With hand-held radar sets, the set should be turned off when not in use, and not turned on and rested against the officer's body such as placed between the knees.