Living With Police Radar

NOTE:

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Police use hand-held or vehicle mounted radar units to monitor the speed of vehicles for the purpose of traffic law enforcement. The units are "low power" and have a range of only about one-half mile. The range may be more or less depending upon terrain, weather, and the size of the target vehicle.

Officers must usually be trained and certified to operate a radar unit and to testify in court concerning readings obtained with it.

Traffic radar may be operated in the stationary mode or the moving mode. Radar units are designed either for stationary use only, or may have a switch to select stationary or moving operation. In the stationary mode the officer parks the police vehicle at an advantageous location and directs the radar antenna in the direction of the target vehicle. The target vehicle may be either moving toward the radar unit or away from it. If the target is large enough or close enough to reflect the radar signal back to the radar unit, the target's speed will be recorded.

In the moving mode, the officer's vehicle must be in motion and can monitor the speed of targets approaching from the opposite direction. The radar unit measures the speed of the officer's vehicle and the speed of the oncoming target vehicle. The two speeds are added to each other by the radar's computer. Then the police vehicle speed is subtracted from the total of the two thus giving the target speed. The readout is obtained in a fraction of a second.

The radar unit must be calibrated at the beginning of each shift. Some jurisdictions may require that the unit be calibrated before and after each radar traffic stop is made. The unit may be calibrated manually and electronically by the officer. Manual calibration is done by striking a small tuning fork "cut" for a certain speed and holding the fork in front of the radar antenna. If properly calibrated, the radar will indicate the same speed as stamped on that particular tuning fork. The unit is also checked by pressing a "calibrate" button on the radar and observing the correct electronic responses indicating that the unit is functioning properly.

Traffic radar is prone to a few errors if not operated by properly trained personnel. Radar units operated inside the vehicle may read the speed of the spinning ac/heater fan. This error is obvious because of the constant "speed" readout in the absence of targets. The officer may re-orient the antenna or turn off the fan while operating the radar. The radar may read the speed of an unintended target due to the radar signal being

reflected off of large objects. Or the intended target may be a small import car or motorcycle, and the speed actually obtained is the "18-wheeler" further down the road. (A larger portion of the signal is returned from the "18-wheeler" even though it is farther away.) These and other errors are easily avoided by the trained operator who will choose a location favorable to radar operation and will reject questionable readings when interfering targets or objects are present.

RADAR DETECTORS

Good radar detectors will detect a signal at a range greater than than that at which the radar operator can get a reading. The detector may be able to receive the radar signal a mile or more away, and this range is too great for the radar signal to be reflected back to the radar unit for a reading. Don't relax yet! Radar operators frequently leave the unit in the "standby" mode when no traffic is present. When the officers sees a vehicle which appears to be speeding, he can take the unit off "standby" thus allowing it to transmit and "lock" on to the target vehicle. If you're that first vehicle, your radar detector will "beep", "flash" or whatever at the same time you're being clocked. This will, however, let the "cat out of the bag" and alert detector-equipped cars further down the road. Some operators don't care about detector equipped cars and will leave the unit on continuously, knowing that there are plenty of non detector-equipped speeding targets to be had.

Police Traffic Laser

Most new, high tech, items used by police agencies are never seen or even heard of by the general public. This will not be the case with the new traffic laser guns which began appearing several years ago.

These new handheld speed measuring devices utilize a narrow beam of light, transmitted in pulses, that strike the target vehicle and then return to the handheld unit where the speed is calculated.

The laser beam reportedly has a width of only three feet at a range of 1000 feet. This makes it easy to pick a single vehicle out of a pack and obtain not only a speed readout but the exact distance to the target.

Radar detectors, which detect radio waves, are useless against the new laser guns.