

**Testimony on the PA STARNet Radio System
Senate Transportation Committee and the Senate Law &
Justice Committee**

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Members of the Senate Transportation Committee and the Senate Law and Justice Committee, my name is Ty Moore and as of four days ago, I am retired from the Pa. State Police, having served 25 years in various capacities during my career. For the past 7 years, I have been working with Capt. Adam Kisthardt in implementing the PA STARNet 800 MHz. radio system for the Pa. State Police and the Commonwealth. With me today is Corporal Leo Luciani, who has taken personal leave to be here to share with you a recent example of how critically important it is for the State Police to have a radio system that functions *reliably in all areas*.

First, let me clearly state that when the PA STARNet system is working, it is a tremendous system that greatly enhances our communications in both voice and data transmissions far and above the old VHF radio system. But therein lays the problem, "when it is working".

The STARNet system is more of a "line of sight" system, which in its simplest form means that if anything comes between the transmitter and receiver, the signal could be blocked or interrupted. The VHF signal bounces, which allows for communications between the peaks and valleys. During the G-20 Summit that was held in Pittsburgh September of 2009, we had to install temporary infrastructure to have effective service coverage in and around downtown Pittsburgh, and even with that additional infrastructure we still experienced problems that cannot be explained solely on poor training of the Troopers utilizing the system. Since much of the system enhancements have now been removed from Pittsburgh we once again have significant areas in downtown Pittsburgh where you would experience service interruptions. In fact, because of the system design and the expense associated with addressing the system deficiencies, the STARNet System has yet to be deployed in Pittsburgh and Philadelphia. We still use the legacy VHF system in both cities.

While working with Capt. Kisthardt and OA on the installation and implementation of the radio system, it has become abundantly clear to me, and I believe to Capt. Kisthardt, that the system is very temperamental at best, and at worst, just plain unreliable, with significant gaps in coverage areas, frequent equipment failures, and system outages.

Allow me to share with you some of the system operational deficiencies that I believe jeopardizes the safety of my fellow troopers as well as those that traverse the Commonwealth on a daily basis.

- The system requires a high degree of continual maintenance to remain operational, leading to very frequent system outages. It is not uncommon to have ten or more outages reported each and every day. The causes of those outages would range from generator issues on a mountain top location, weather interferences, or equipment failure. The outages would last from several minutes to, in some cases, several days.
- Large areas of patrol territories have significant “gaps” in coverage. Those gaps could be anywhere from several hundred feet to over 10 miles in some areas. In one chase situation the Trooper was frequently going in and out of coverage as the chase ran down Interstate 81.
- Equipment failures are common. In some cases, the equipment fails right out of the box! The hand held portable radio units, as well as the mics in the cars have seen extremely high numbers of failures shortly after delivery. Out of 2100 hand held radios purchased, over 600 have been identified as potential for failure units. More recently, 600 hand held radios were issued for the G 20 Summit, and within 6 months, 200 of those have failed.

This is a very costly system, and the only way to ensure that this system is operable when the system is needed is to put the money into it and enhance the areas that need coverage. Today, somewhere upwards of \$300,000,000.00 dollars is said to have been spent on this system, and statewide, maybe half of the Commonwealth has migrated to this system. For agencies like State Police, Corrections Penn DOT and Probation & Parole, can we really afford to take a chance on having coverage?