

## VIVDS Cameras Withstand a Tornado! No realignment required after direct hit

The F-4 and F-5 tornados in Greeley, Colorado on May 22, 2008 did not shake the high performance ITS Plus video detection cameras out of alignment. The video cameras were part of the ITS Plus Sensor Platform installed to provide video stop bar detection for CDOT.

The *ITSP-SM120C* model cameras were selected for the test intersections. ***The product is designed to withstand sustained hurricane level winds. It is the only VIVDS camera on the market with a 5 year warranty covering “Acts of God” (hurricane, tornado and lightning).*** Wind speeds were up to 200 miles per hour as the storm cut a 35 mile path of destruction. The cameras were mounted on traffic signal heads at an intersection near the CDOT Region 4 Signal Shop in Greeley. The cameras continued to transmit without interruption or loss of alignment during the storm.



Jim Thrush, Transportation Traffic Supervisor at the Colorado Department of Transportation stated that the tornado completely destroyed their Signal Shop during the storm yet did not disrupt the ITS Plus cameras. The DOT was fortunate that none of their staff were hurt at the facility as everyone was out working.

The Greeley storm was accompanied by baseball sized hail and The Denver Post reported 60+ homes damaged, one person dead and several injured.

Ken Balltrip, Traffic Signal Supervisor for the City of Greeley also report no problems with his ITS Plus cameras during the high winds. In particular Ken noted the cameras out performed traditional cameras during last year’s ice and snow storms.



In the past five years at a span wire installation in Houston, ITS Plus cameras have been through two hurricanes (Ike and Rita) without the need for camera realignment or lens cleaning. ITS Plus cameras have withstood countless thunderstorms with hail up to several inches as well as snow and ice storms. According to Mike Hutchison, President of ITS Plus, “In six years there have been zero hardware field failures and zero maintenance of ITS Plus cameras worldwide. This level of performance is unique for our market”. ITS Plus is a Texas based corporation which utilizes an ISO 9001:2000 certified manufacturing line.

The ITS Plus cameras are designed for low maintenance and interoperability with all the major VIVDS suppliers. Due to the unique and patented design they require almost no cleaning of the lens and are impervious to being knocked out of alignment in high winds. The cameras may be installed in a variety of configurations including in a traffic signal head (invisible to the general public) or a traditional mast arm mounted on a pole/Astro Bracket. When utilized with a special counter weight balance system the cameras can even be mounted on a single strand span wire to address the occlusion issues associated with span wire intersections.

*Photo Credits: Top, KUSA TV Channel 9 in Denver. Bottom, The Denver Post.*