SALINAS RURAL FIRE DISTRICT
TAILBOARD SAFETY SESSION
APRIL, 2005

Vehicle Fires & Projectiles

On March 29, 2005 E5511 responded to a vehicle fire in the area of Tara Drive and Las Palmas Parkway. At 0831 hours E5511 arrived on scene to find a Volvo Stationwagon with a fully involved engine compartment. The fire had completely destroyed the front of the vehicle and was now moving through the firewall and into the interior of the car.

The Volvo was facing West against the curb across the street from Buena Vista School. Approximately ten feet from the vehicle was a six foot high wooden fence separating Tara Drive and Stonehaven.

E5511 was spotted approximately eighty feet upwind facing the vehicle. Captain Foster, Firefighters Craddock, and Firefighter Anderson pulled a one hundred foot, inch and a half preconnect to extinguish the fire.

All three personnel approached the Volvo at a forty-five degree angle from the front driver's side bumper. Just before water was applied to the fire a loud explosion was heard as the fire in the engine compartment shifted. Personnel on the hand line assumed this was a tire that had failed and continued with extinguishment.

After the fire was knocked down Lieutenant Wenger found the bumper of the Volvo severely damaged and away from the vehicle. Further examination showed that the bumper was of the shock absorbing-type. The sealed components had pressurized and then failed, launching the bumper away from the vehicle penetrating the fence and coming to rest approximately twenty feet away. The bumper, weighing at least fifty pounds, traveled at a speed fast enough **not** to be seen by any of the three personnel standing less than ten feet away.

The bumper had departed from the vehicle at forty-five degrees from the passenger's side. As seen below only the driver's side shock failed. The bracket on the passenger's side secured the bumper for only long enough to change the flight path and cause the bumper to twist one hundred and eighty degrees from its original shape. Because one of the brackets held the bumper in place, energy from the explosion was utilized to twist the bumper and to sheer three of the four bolts on the passenger's side of the car. Had both of the shocks failed simultaneously, or the bracket on the passenger's side been further damaged by the fire, the bumper would have traveled at a much greater force, possibly damaging the engine or seriously injuring personnel.

It is also worthy to note the obvious. If it had been the passenger's shock that had failed first there would be three seriously wounded Salinas Rural personnel as a result of this ordinary vehicle fire.

CONCLUSION

Text found in IFSTA Essentials in reference to fighting vehicle fires states, "…approach the vehicle from the front or rear corners." This is common practice generally used by most fire departments when fighting vehicle fires. Although this was an isolated incident, it would be prudent to approach vehicle fires between the front and rear tires (see picture below). This will guarantee there are no personnel standing in the flight path of any projectiles from the front or back of the vehicle. Prior making this approach ensure that all traffic hazards have been eliminated.

X Location of Salinas Rural Personnel at the time of failure.