

$$\frac{J_{lk}}{\text{Forensics}} = \int_{V_i}^{V_f} \frac{-B}{(V^2 + Bg)} dv$$

DN: 3

Date: December 20, 1990

From: Jerry L. Kreps

To: Mr. Virgil Jacob  
4420 North 10th  
Lincoln, Ne 68521

Re: Case Number 89-070868

Text begins:

In the previous document (DN 2, December 3, 1990) I presented a shooting scenario using the testimony of Ingram as the primary guide, deviating only when I was forced by actual physical evidence. It became obvious from the physical data of the gun shot wounds on the victims, available to me at the time, that even if the directions of some were in doubt, the testimony of Ingram (three quick shots, screams and a pause, two or three more quick shots, and then some slower shots) is not accurate.

Since that report I have been given access to the photographs of the gunshot wounds and the top sheet on the mattress. Several statements can be made about the sequence of shots.

1. The first shot was fired at Etherton and passed through his knee, wrist, and shoulder. The shooter was somewhere along the west wall between the door and the closet. The ejected casing landed near the door. The angle was between 14 and 22 degrees. Depending on how tall and how close to the bed the shooter was, the muzzle of the gun was between 3' and 4' 8" above the floor. The gap between the foot of the bed and the sliding closet doors was 3' at the maximum. The bed was about 6' 6" long. The range, therefore, was between 6 to 8 feet. The higher muzzle height would suggest a shooter height of about 5' 8". It is

doubtful the shooter would squat in such a tight place. Squatting would reduce the target exposure and increase the difficulty of hitting the victim.

2. The last shot was fired at Etherton as he was collapsing in the hallway but it missed him, passing through the closets and out of the house. The casing landed in the hallway near where the shooter stood. The bullet had a downward path through the closet door, the closet walls, and out the south wall of the house, striking a car parked in the driveway south of the house. A CAD rendering of the data suggests a shooter height between 5' 6" and 5' 10", with the closeness of the shell casing in the hallway to Etherton's feet favoring the low side.

3. Three shots were fired from the north side of the bed. Two hit Hopper and one hit Etherton. The three casings landed in the corner. Hopper could not have been on the bed when she received the flank shot because it would have resulted in a hole in the top sheet somewhere in the northeast quadrant. The low angle of the shot (11-14 degrees) would have left an elongated tear in the sheet. None was observed. The shot to Hopper's face entered below the ear and exited, traveling on a slightly upward course, from the cheek beneath the right eye. The direction of travel was undetermined by the pathologist because the attending physician cut the tissue samples containing the bullet wounds from the neck and face but did not mark them. If the cheek was the entrance wound then another hole in the top sheet or in [ #- Revise using a form of `one`, `a`, or `an`.] one of the bedroom walls about 3' off the floor would be required. None were found. Only the hallway shot didn't hit a victim. Five wound trajectories require five bullets. The bullet exiting the east wall of the bedroom near the floor at a slightly upward angle could only have been caused by the bullet exiting Hopper's cheek while she was under the bed. Therefore, Hopper received both wounds while under the bed. Etherton's fatal wound makes an approximate angle of 34 degrees with the transverse plan. If Etherton had

been upright when he received that wound then there would have been bullet marks on one of the walls at least 5 feet or higher above the floor. None were found. It is my opinion that most likely the casing and slug on the bed was the round which caused the fatal wound. A shooter in the northwest corner by the chest would be at the required angle for Etherton's fatal wound and Hopper's flank wound. If Etherton were laying on the bed the bullet would have been caught by the pillow after passing through Etherton and losing most of its energy. If the gun was between a horizontal and vertical position when fired the casing would arc up and onto the bed.

4. The non-fatal shot entering Etherton 2.5 cm to the right of the sternal notch and exiting superior to the elbow on the posterior aspect of the upper right arm was made before or after the three shots made from the north wall. The shot was also about 36 degrees from the transverse plan but in the opposite direction. It requires the shooter be shooting downward. This shot required a second bullet hole in the top sheet. A possible candidate was found during my December 20th inspection of the top sheet. It is about 15" from the north edge, midway between the top and bottom, and 43" from the first hole. It is my opinion that this was the second shot, fired while Etherton was setting partly upright while helping Hopper to slide off the bed on the north side. After receiving this shot he fell backward onto the bed close to his original position. This would make Etherton's fatal shot the second to last fired in the bedroom. After receiving that wound he would have only 30-45 seconds before collapsing in the hall due to shock.

A shot sequence is shown in a table on the following page.

### Shot sequence

Etherton: shot thru knee, wrist and shoulder = A, fatal shot = B, thru chest and out right shoulder = C. Hopper: thru flank = A, thru face = B.

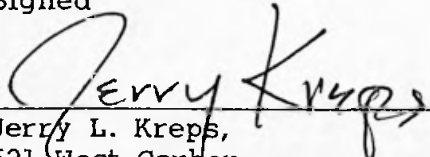
1. At Etherton - A	Passes through knee, wrist, shoulder, he rises and rotates toward Hopper.
Pause	Required so Etherton can set up. Why no scream here? This gives me problems. But, Hopper could be moving to beneath bed now.
2. At Etherton - C	Enter midline of chest, exits arm, puts him back down on bed, stunned and breathless. May have made possible second bullet hole in mattress.
Pause, Scream	Hopper screams, drops to floor, crawls under bead. Assailant walks to side of bed and stoops to fire. Hooper could already be under bed and screams when she realizes assailant is moving toward the side of the bed to shoot her.
3. At Hopper - A	Flank shot. MUST enter through side, not ventrally?? Puts casing into corner. 17-20 Deg laterally, 11-14 Deg vertically.
4. At Etherton - B	FATAL shot. Setting up or laying down. Second casing lands in corner. Shooter probably in same position as when flank shot was fired from. This shot could have been before flank shot.
5. At Hopper - B	After hitting Hopper it passes out of house. Third casing in corner.
pause	Assailant walk out, followed by a staggering Etherton.
6. At Etherton	In hallway. Complete miss. Hits car outside. Etherton collapses.

12-8-90	Detailing new scenario based on photo data.	4 hrs
12-20-90	Walkthrough tape, top sheet and attorney discussions	3 hrs
12-8-90	Writing report	2 hr

As agreed, my rates ar \$45 per hour. The fee for 9 hours is \$405.00, due on receipt of this report. Reporting this as a deduction you will be required to submit my social security number to the IRS. It is 523-52-3937.

Text ends.

Signed

  
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