CBJ Tech AB

6.5x25 CBJ Ball against windshield and gelatin

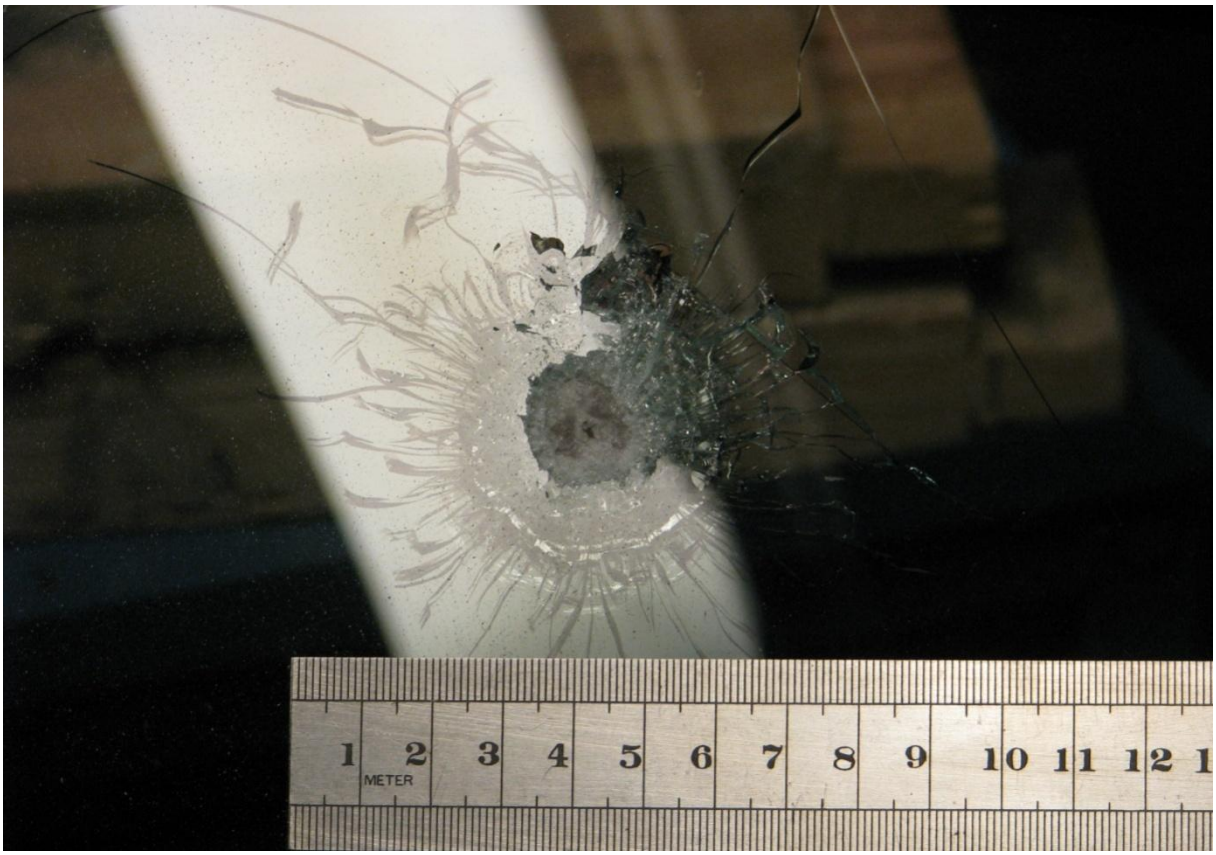
Purpose:
This test is based on test event 6 in the FBI Ammunition Test Protocol, which simulates a target sitting in the front seat of a car.

Test setup:
A windshield was set up according to Test Event 6 of the FBI Ammunition Test Protocol, which means it was inclined 45° vertically and 15° to the left and offset 45cm from the main target, which consisted of a 10% ordnance gelatin block, shot at 4°C.
The dimensions of the block are: Length (Firing direction): 340mm, Height: 200mm, Width: 250mm.
The range was 8m.
One 6.5x25 CBJ Ball round was fired at the target, V_0: 844m/s.

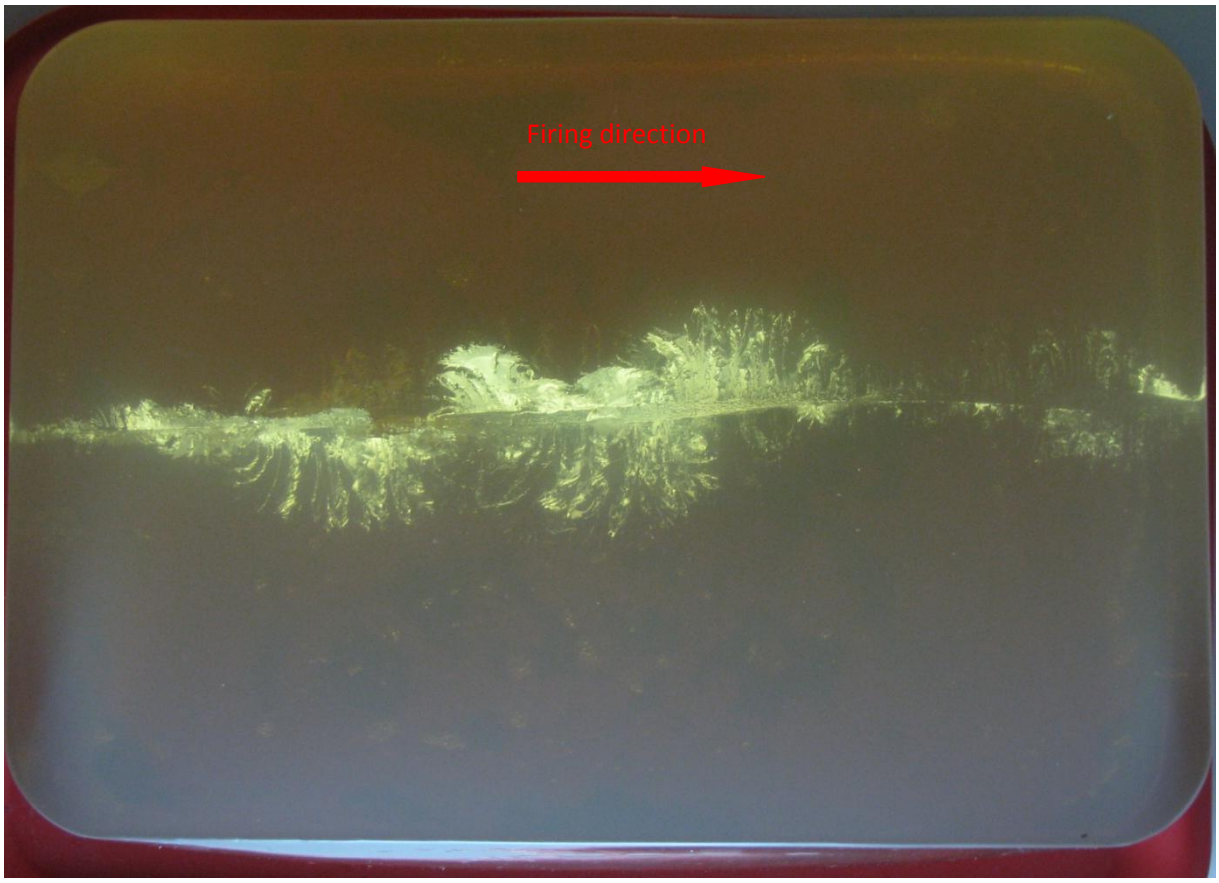
Results:
The deflection of the bullet from penetrating the windshield was negligible, and the gelatin block was completely penetrated with a large temporary cavity throughout its path.
The effect can be studied in the figures below.

Comments:
The tests against windshield automobile glass are generally considered the toughest of the FBI test protocol. This is because a lead-core bullet sheds much of its energy to penetrate this barrier and is generally heavily deformed and/or partly broken up when hitting the gelatin.
The difference with this test compared to the FBI test is that the “light clothing” was lacking in this case, and the range was increased from the stipulated 10 feet (ca 3m) to 8m.

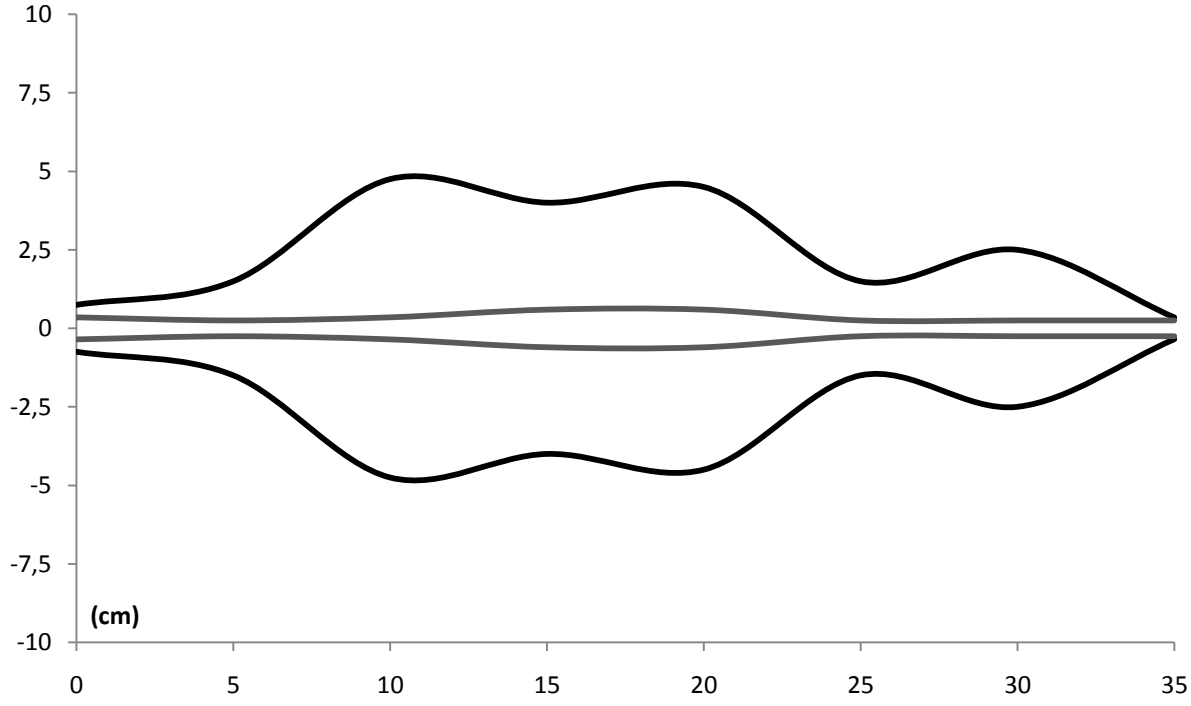
The test setup.



The bullet hole in the windshield. The limited area of cracked glass compared to other tests indicate that the bullet used little energy to penetrate the windshield.



The gelatin block.



The Wound Profile of the test.