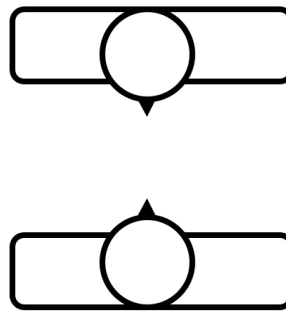


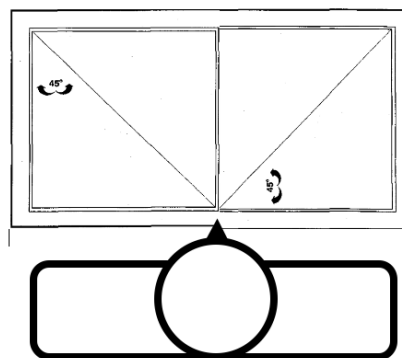
HGN in the defendant's car doesn't comply with the NHTSA manual

There are at least two reasons why the HGN cannot be done correctly in a cruiser. The first problem involves the difficulty of achieving the proper 45° angle. The second problem is that due to the limited space available, the proper distance may not be achieved on maximum deviation. First the angle problem:

The way the HGN is taught and the way it is described in the manual, the subject is looking straight ahead (“don’t move your head”) with his shoulders parallel to those of the officer. The subject’s nose is pointing in a direction perpendicular to the shoulders.



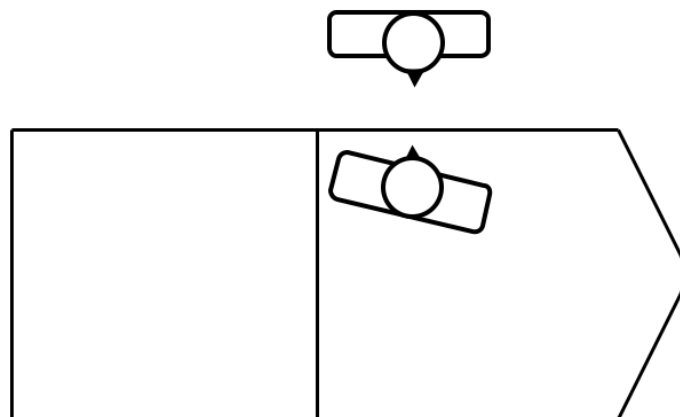
Using the templates from the manual (e.g. 2004 NHTSA Student Manual VIII-6), the proper alignment and angle should look like this:



Turning so that the shoulders are parallel to the officer with the nose pointing straight ahead is hard to do in a car. A gymnast or a side show performer might be able to achieve it, but ordinary people don't move that way nor do they sustain such a contorted position even if

achieved. When the subject is in the driver's seat, it is almost impossible for a person of normal flexibility to turn with his shoulders parallel to the officer. The car seat does not swivel and the driver's side door blocks the subject from moving his knees 90° from the normal sitting position to face the officer directly.

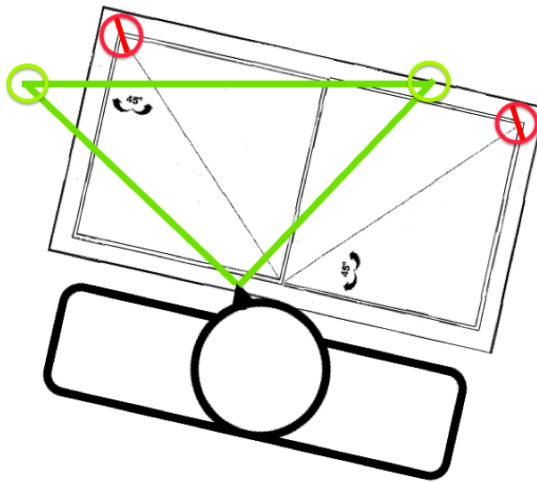
Most ordinary people also have difficulty twisting their bodies so that their shoulders are perpendicular to their hips. What happens instead is that the shoulders are at an angle with the right shoulder closer to the passenger's side door and the left shoulder closer to the driver's side door rather than both shoulders parallel to the doors. The rest of the turning needed for the subject to face the officer is achieved (if it is achieved at all) by the subject turning his head to the left so that his nose is pointing directly at the officer. When this happens the subject's nose is no longer pointing in a direction that is perpendicular to the subject's shoulders as it is in the normal face to face position used outside the cruiser. The less flexible the person, the worse the effect will be.



This, in turn, distorts the normal rule of thumb that officers are given to estimate the 45° degree angle necessary to achieve a correct measurement on the onset prior to 45° portion of the HGN. The trick of lining up the stimulus with the shoulder only works if the person is looking straight ahead with his nose pointing in a direction perpendicular to a line drawn

between the subject's two shoulders. The if the angle is wrong, the result is that instead of measuring onset *prior* to 45° as the manual requires, what is actually measured is onset *after* 45°.

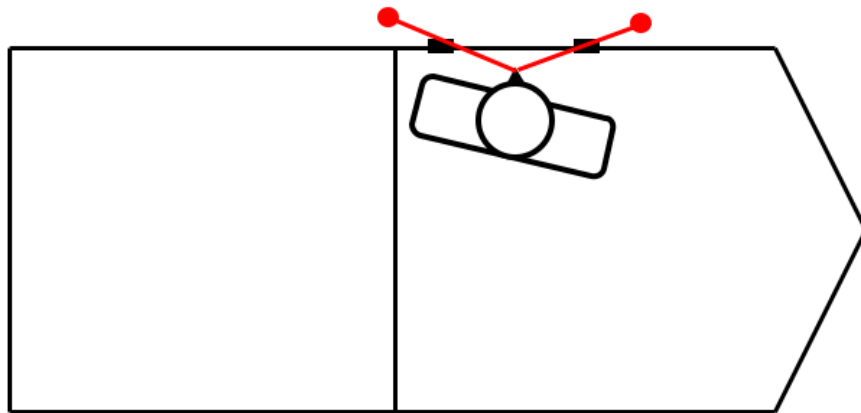
In the graphic below, the red strike through circles show the maximum 45° point where the stimulus would be placed using the shoulder alignment method on a subject with a turned head. The green circles show where the stimulus should be in relation to the direction the head is pointing. The problem is that unless the officer carries a protractor or a template, there is no method approved in the manual for estimating the angle on a turned head. The officer is left to guess.



This is not substantial compliance with the manual. Instead, it is in direct contradiction with the angle parameters set forth in the manual. The case of *State v. Haneberg*, 2007 WL 1531410, 2007-Ohio-2561 (Ohio App. 9 Dist. May 29, 2007) involved a similar situation. The difference between *Haneberg* and the instant matter is that in *Haneberg* the subject was twisted inside a police cruiser rather than twisted in his own car and the officer was inside rather than outside.

Even if a subject could manage to turn with his shoulders perfectly parallel to the doors of the vehicle and the problem above could thus be avoided, other problems can arise doing the HGN in a car. The next problem is that the supports which hold up the car roof and contain the window tracks can interfere with the field of vision on maximum deviation as well as other portions of the HGN.

Since the manual keys the position of the stimulus at onset prior to 45° to the edge of the subject's shoulders presumably the position of the stimulus at *maximum* deviation has to be significantly further out beyond the edge of the shoulders. If the shoulder is aligned with or beyond the posts (symbolized as black rectangles below), this cannot be achieved. The post can potentially block the stimulus (the red dot) or cause the officer to move it out beyond the post and beyond maximum deviation. Depending upon their placement, the posts could also potentially interfere with the other portions of the test as well.



Lastly, if the officer attempts vertical nystagmus the roof of the car could also block the subject's view of the stimulus.