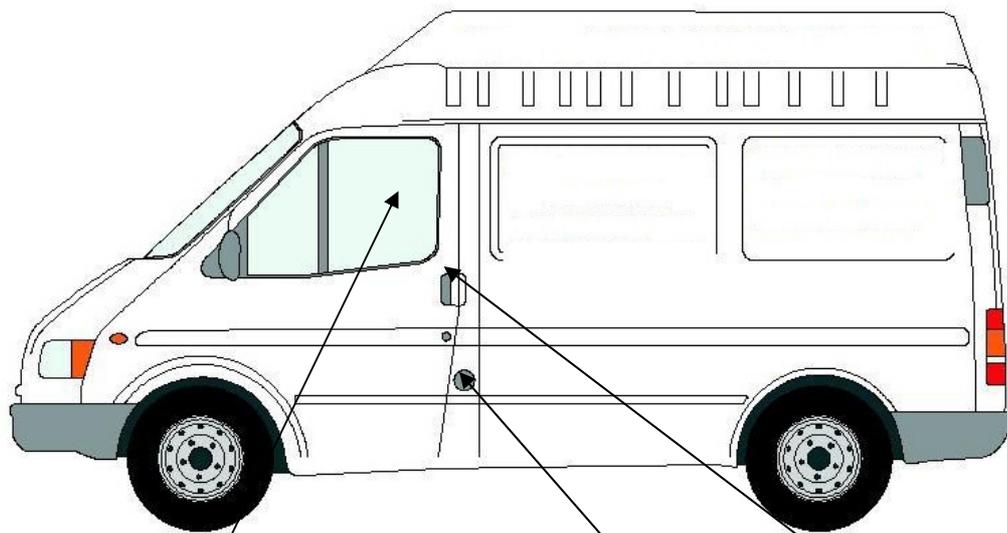


## Contaminated vehicle scenario

A vehicle can be used very well to show the effects of contamination and its spread through a scene. LS1 spray can be used either directly onto the areas or can be sprayed onto a cloth and then applied to required areas to give a lower concentration - and to make detection more difficult.

This scenario is ideal for training teams dealing with border control operations, lost sources & potential IED's containing radiological material to ensure that evidence is gathered correctly without further cross contaminating the scene.

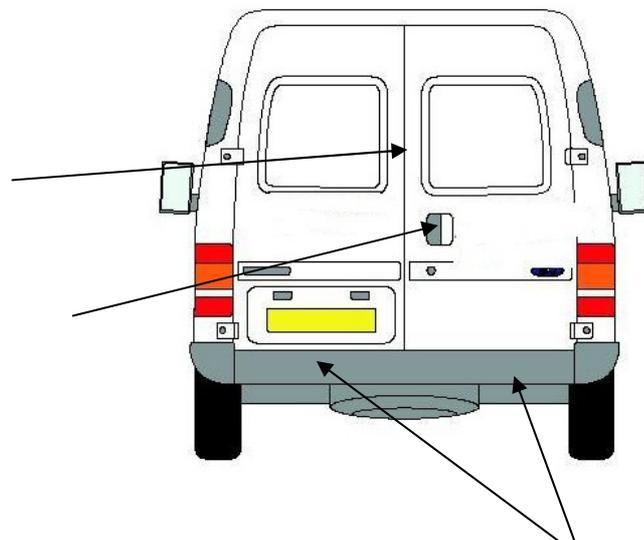
Suggested application points for LS1 spray to show contamination of vehicle



Window edges and frame to door

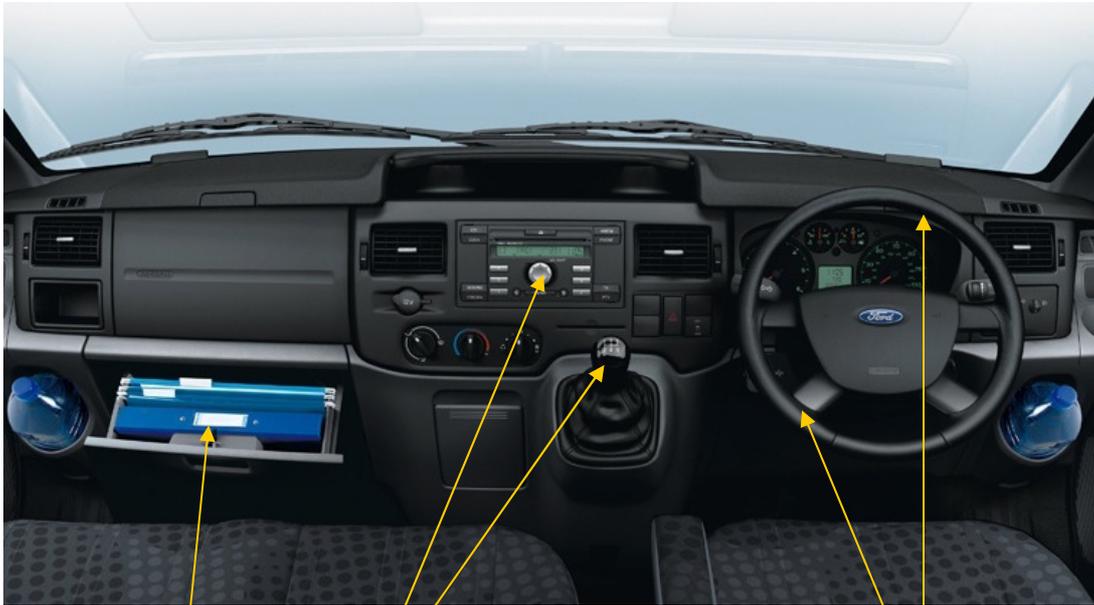
Door handles, locks and petrol filler caps

Touch points of door open and close, ie handles, edges of door and rear windows.



Edges of loading bay which may have been contaminated from materials being rested or slid into the back.

## Internal application of LS1 spray



Heavier application on areas likely to have been most used, including gear stick, radio controls and glove box

Steering wheel and indicator and light switches should be contaminated.

Window controls or winders, pockets and trim edges where clothing contact would have been made.



Door sills from contaminated feet and edges of door frame .

## Suggested approach and test procedure

Every organisation has a different view on how such situations should be handled and this is in no way meant to suggest best practice, the below is only a set of points which can be incorporated into an exercise and where appropriate what the limitations of the equipment may be.

A scenario such as this would normally be investigated with the use of an instrument such as the Thermo Electra with a HP260 or DP6 probe. We will assume that the area has been surveyed for potential radiation fields and deemed safe to enter. Should you wish it is possible to enhance this scenario by using the STS Safe Series to generate a simulated radiation field outside of the vehicle and to replicate a source inside the vehicle.

This could be achieved by secreting a Safe Variable MiniSource under the vehicle set on low power to generate a “radiation field”, the trainees would be instructed then to proceed to open the vehicle which would then reveal a hidden directional source giving out a much stronger signal from the now open vehicle. Suggested instruments for this scenario would be the STS Survey-Safe simulated field survey meters and the Safe-EPD simulated dosimeters.



Safe-MiniSource source hidden inside van will give a large signal when doors are opened.

Safe-Variable MiniSource hidden under van. Generating background field.

Having dealt with and removed the source , the team can now monitor for contamination of the vehicle and the scene.

Having applied LS1 spray as suggested in the previous pages the team would proceed to methodically determine which areas were contaminated and to what extent. The team would then proceed to check the inside of the vehicle and to gather any evidence required.

LS1 spray is a liquid that evaporates over time and gives off a harmless gas which is measured by the instruments. It should be noted that in very warm conditions that the liquid will evaporate quicker and therefore the “contamination” will disappear, in direct sunlight for instance it may only last 30-45 minutes. This should be born in mind when setting up an exercise in advance.

As the LS1 does truly demonstrate cross contamination it is also very good training for the search team to then check each other for cross contamination that they may have collected whilst investigating the scene.

Instruments should also be checked for contamination that may have been passed on to them through contact with the vehicle or contaminated users hands.