Inverted Roof Removal

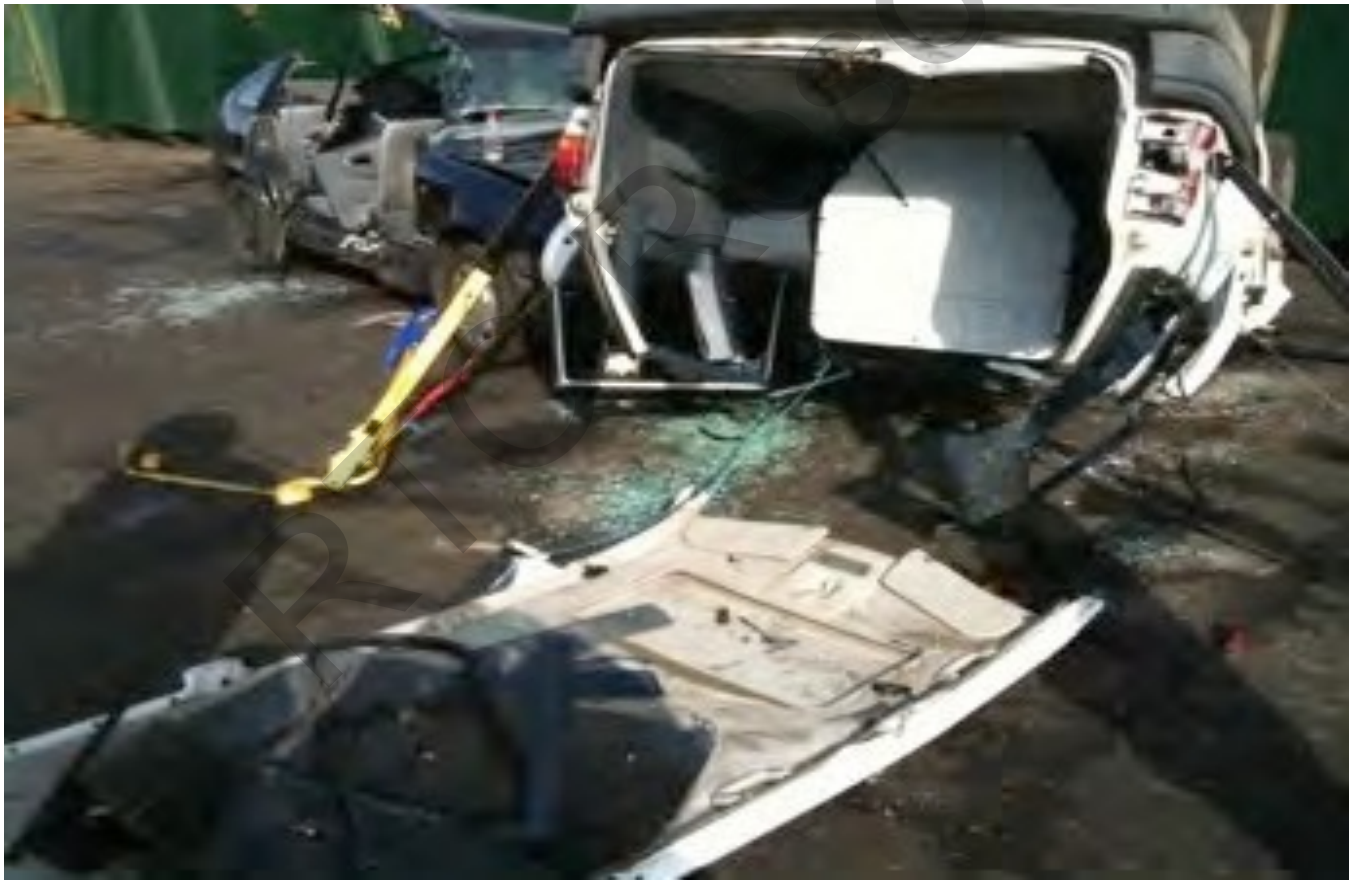
The inverted roof removal technique isn’t new, it has been around for many years. Its a technique that you don't come across that often or see much written about.

There are not many situations that would require its use, but that one time this may prove to be the ideal solution.

With a vehicle resting on its roof, the access to the casualty can be very restrictive, placing them on a long board can be very difficult in the confines of the vehicle especially where space is limited and internal space creation is either not possible or ineffective.

By removing the roof in one piece we can slide the roof out from under the vehicle with the casualty still on it, we must be very clear here, correct C-SPINE management must be maintained at all times.

The decision to carry out this evolution will depend greatly on the Dynamic risk assessment, the casualties injuries, benefits v casualty outcome, type of ground and whether the roof will slide out relatively easily.



You can see that good vehicle stability will be required to prevent the main chassis from dropping when you make the cuts through the ABCD posts etc

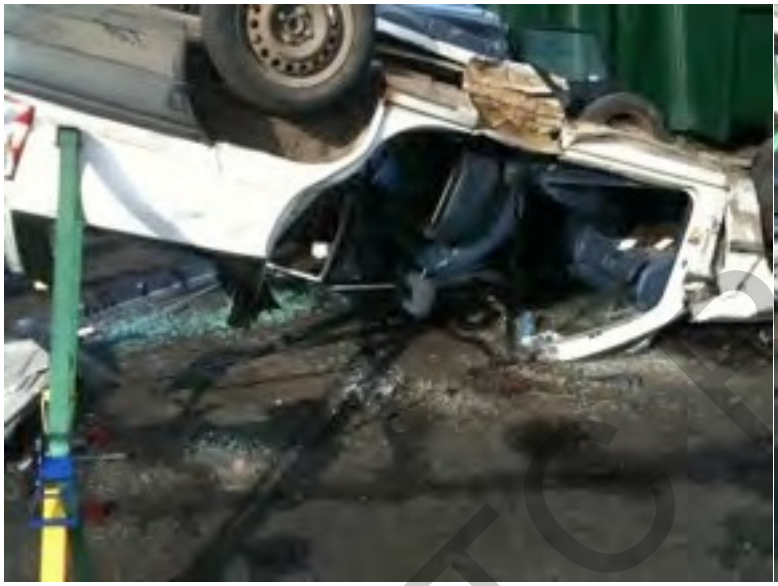
Here we have used a stability system that holds the vehicle in situ, preventing it from collapsing

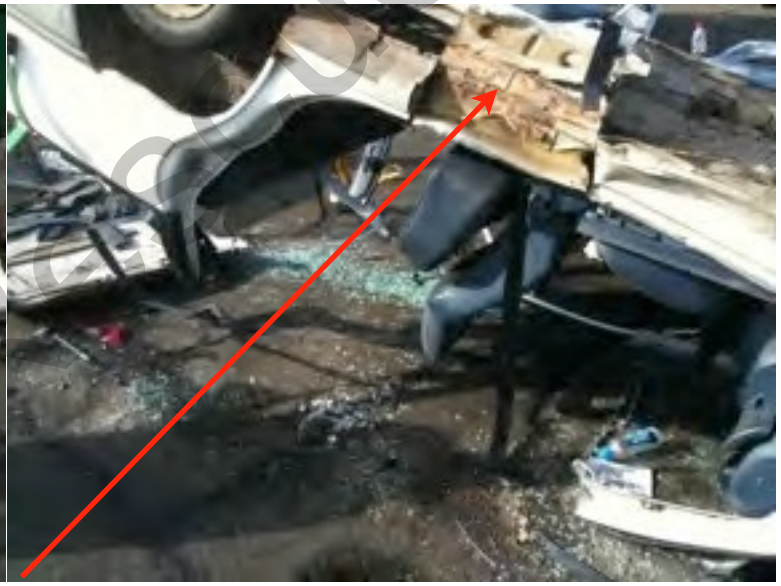
To complete this technique, carry out vehicle stability that will allow the roof to be removed.

This is very important:

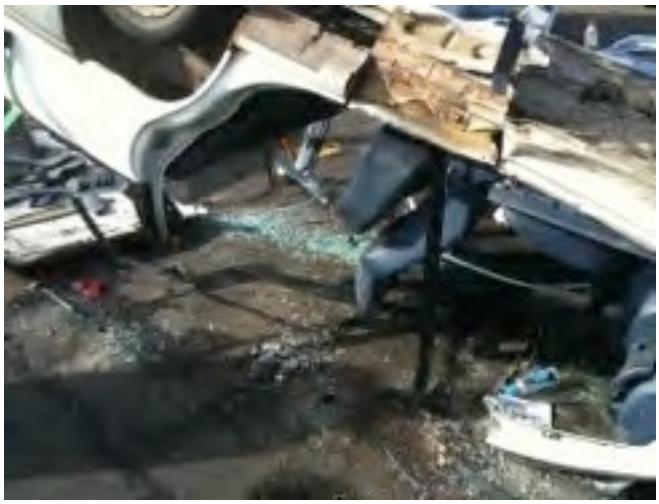
You must have a systematic approach to the cuts you are going to make, as we cut through the posts the roof will become very unstable and flexible, this can be reduced using a systematic sequence of cuts following an assessment of the roof and what damage has already been done to the rest of the roof posts. What is also very important is the location of the casualty / casualties. This will have the deciding factor. Tis technique is all about excellent communication with the clinicians, vehicle damage, crew communication and very good extrication planning.

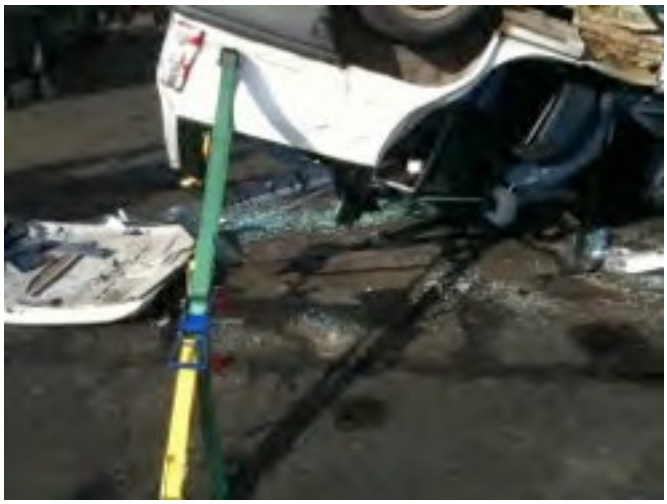
You may need to pack out under the roof to keep it stable and then remove the packing before sliding the roof out, creating a solid working platform.





You can see in the pictures what you are left with, you can also see that we have carried out a gull wing to create maximum side space. (A Gull wing is the inverted folding up of the B post and rear door in one piece) A gull wing is a viable technique, but with dedicated cutters the removal of the door and B pillar individually can be quicker in most cases, especially with the use of impact wrenches and ratchet spanners.





This is a technique worth practicing, its not something that will be used often, but when it is, we need to make sure we know what to do and what implications there can be.

The main points to note are: Adequate and safe stability is necessary, a systematic approach to the cuts needs to be assessed. Benefits v risks v outcome needs to be factored into the situation. Good scene communications between the tool operators and the OIC

If the windshield is still attached and does not break away as the relief cuts are made, you need to place your spreaders in-between the A-post and roof where you have already cut and spread with caution to tear the windshield from its bonding at the front header rail.

Plan ahead if this is not viable, always have another plan ready to execute.

I did have my doubts whether this is a viable technique, having carried it out in a training environment, I fount it to be a relatively simple evolution that does have some benefits. It is now something I will keep in my toolbox.

As always please send in any comments or ideas to rtc.rescue@gmail.com