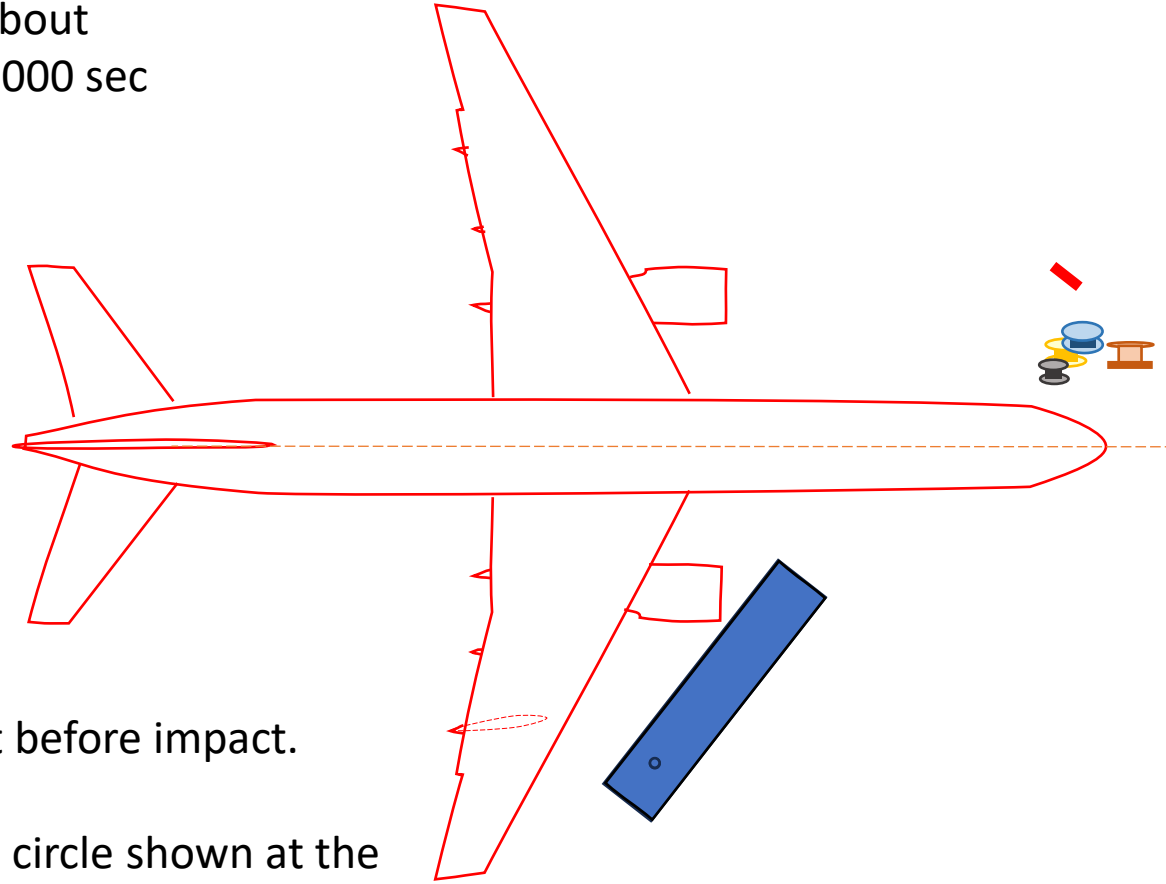
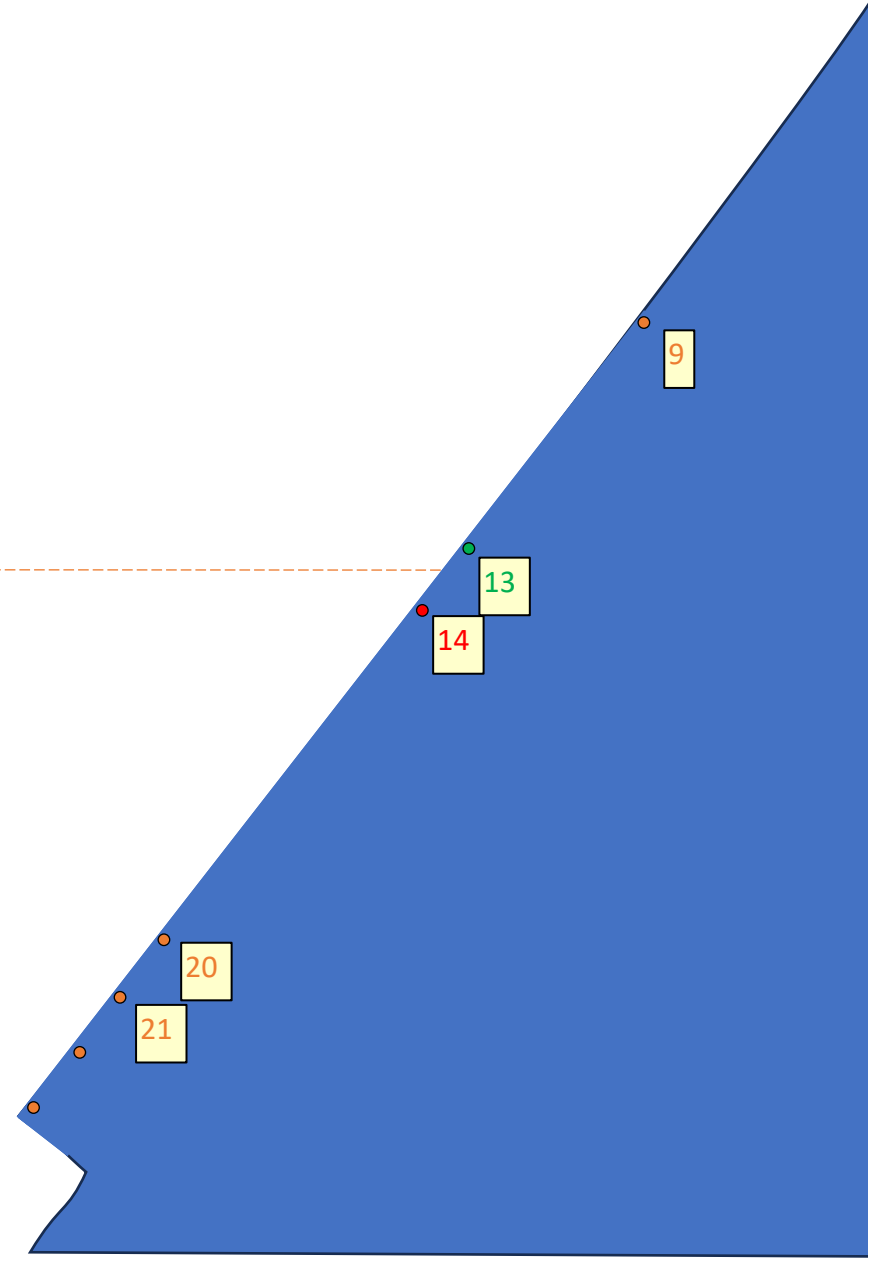
Appendix C

Creation of the flap-track fairing trace on the cabin roof of the generator trailer

Boeing 757
at about
t=0.000 sec



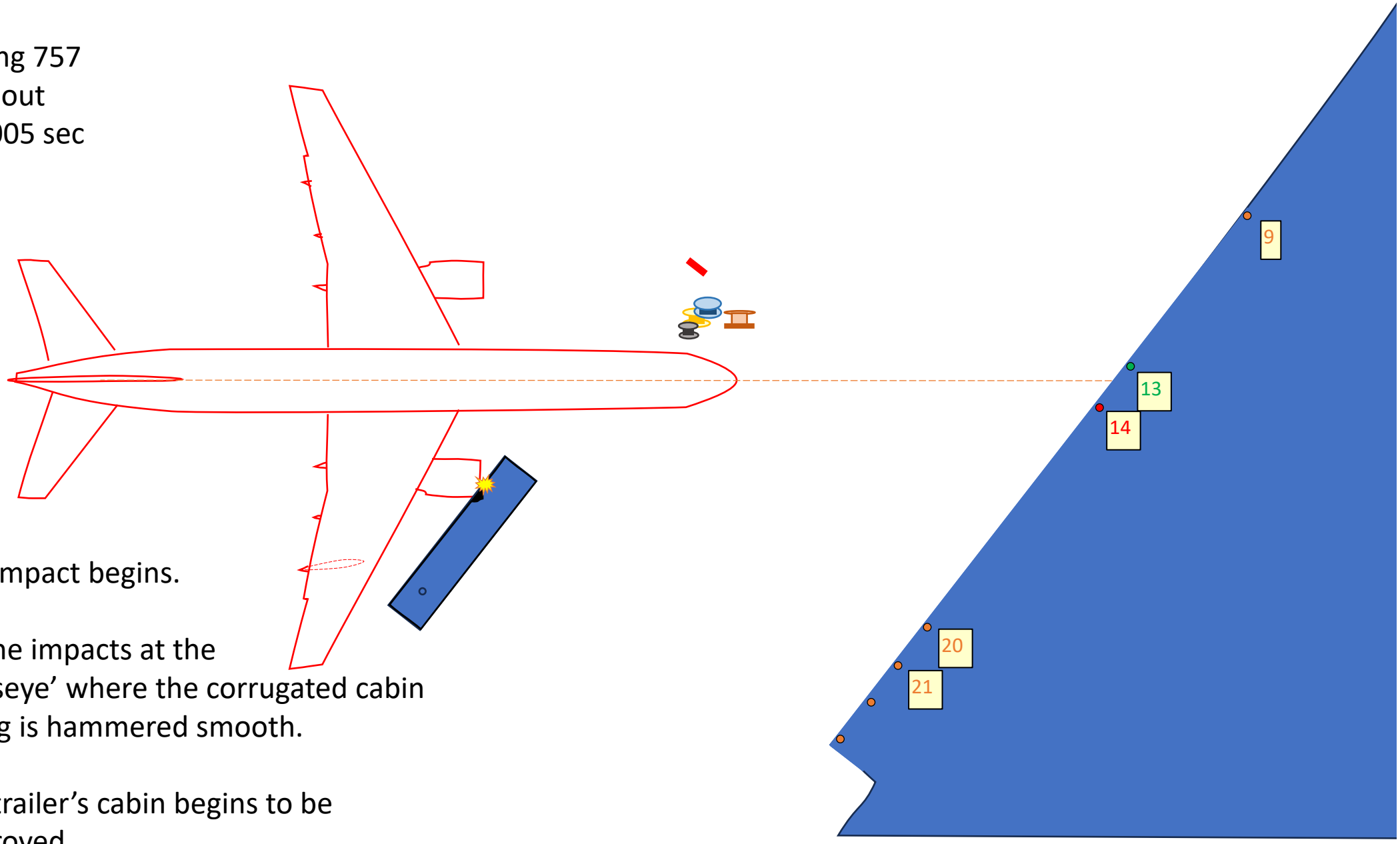


Just before impact.

The circle shown at the rear of the trailer is assumed to be the center of mass for rotation.

NOTE: The dynamics of this impact are much more complex than shown here and include bending, twisting and elastic deformations of the cabin.

Boeing 757
at about
t=0.005 sec

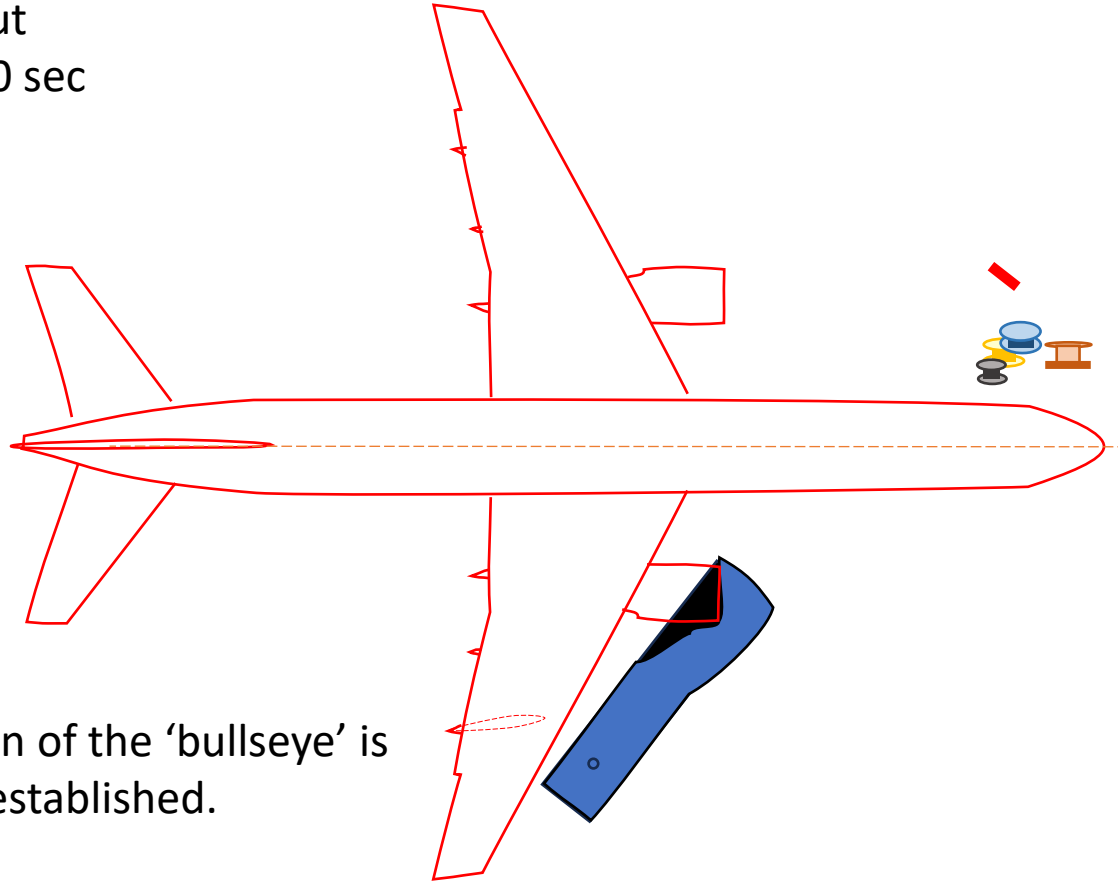


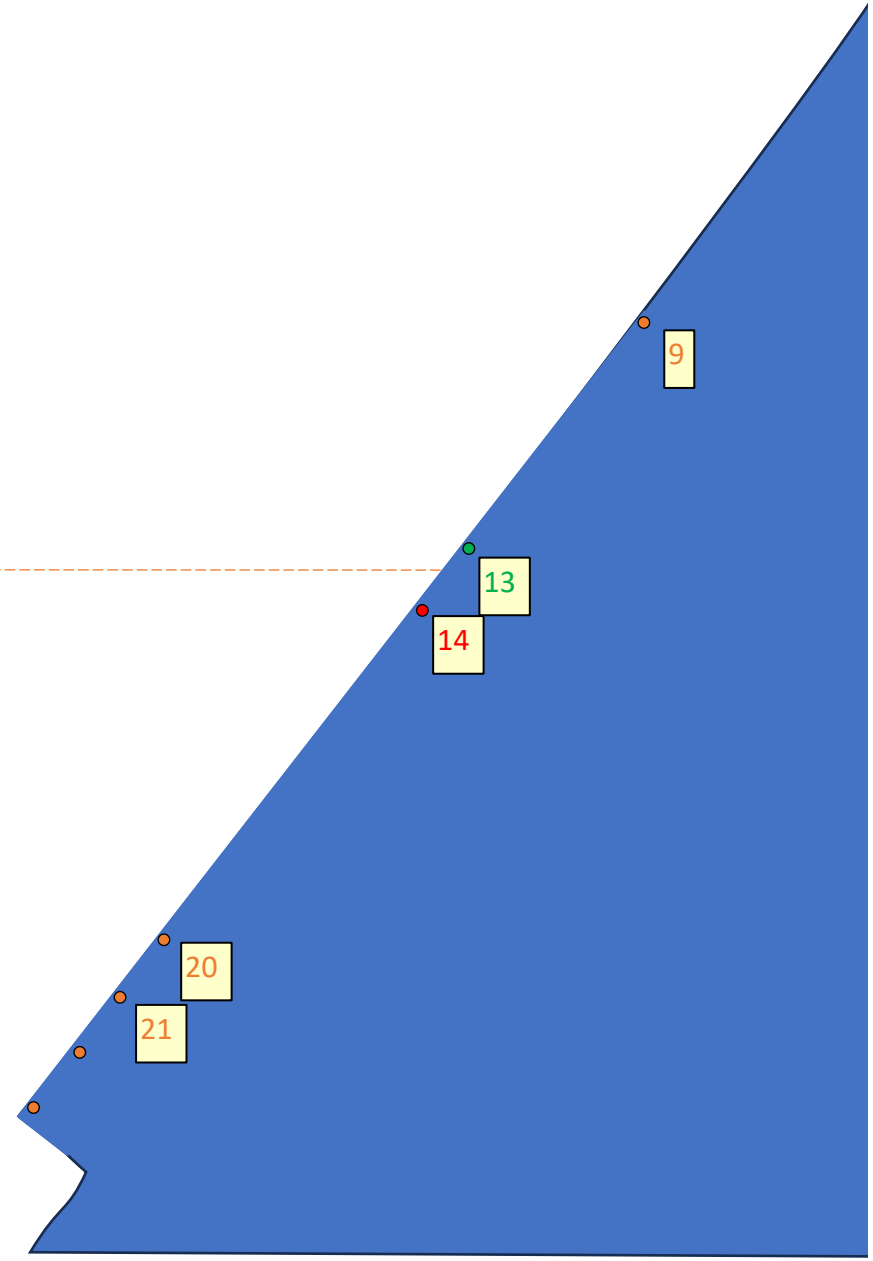
The impact begins.

Engine impacts at the ‘bullseye’ where the corrugated cabin siding is hammered smooth.

The trailer’s cabin begins to be destroyed.

Boeing 757
at about
t=0.010 sec



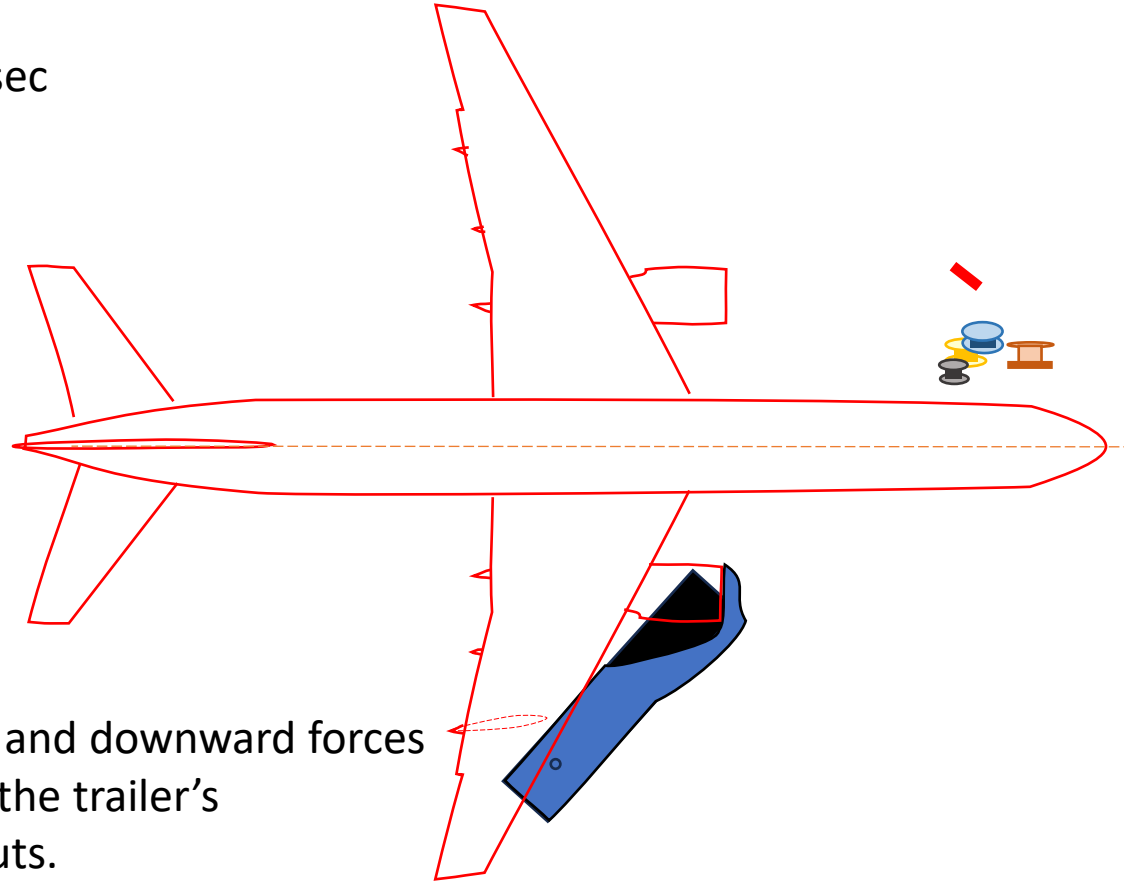


Location of the ‘bullseye’ is firmly established.

Heavy steel components of engine impacts the trailer’s frame.

Trailer frame is then pushed rightward and downward – to begin the trailer’s rotation.

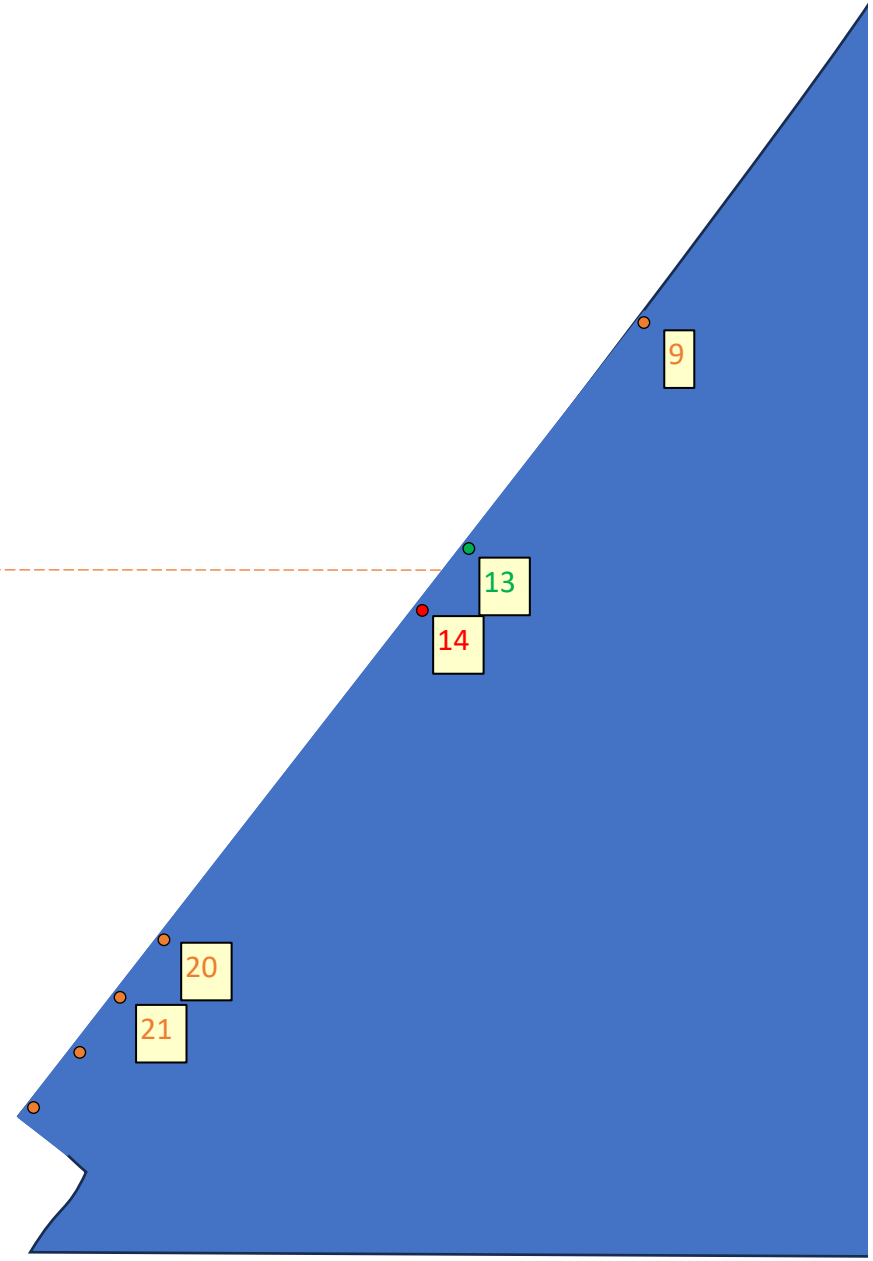
Boeing 757
at about
t=0.015 sec



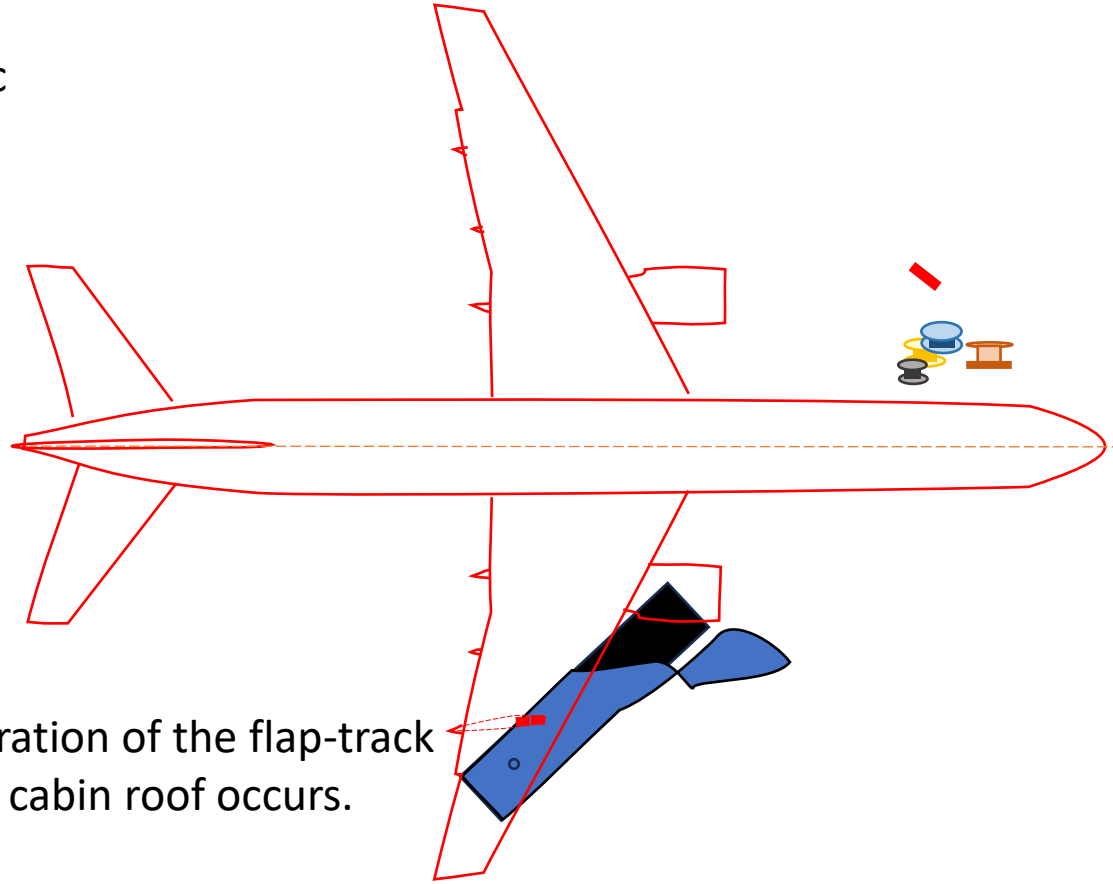
Rotation and downward forces collapse the trailer's front struts.

The trailer's cabin continues to be destroyed.

Large rectangular box (tool lockers) seen in the post-event photo is knocked over.



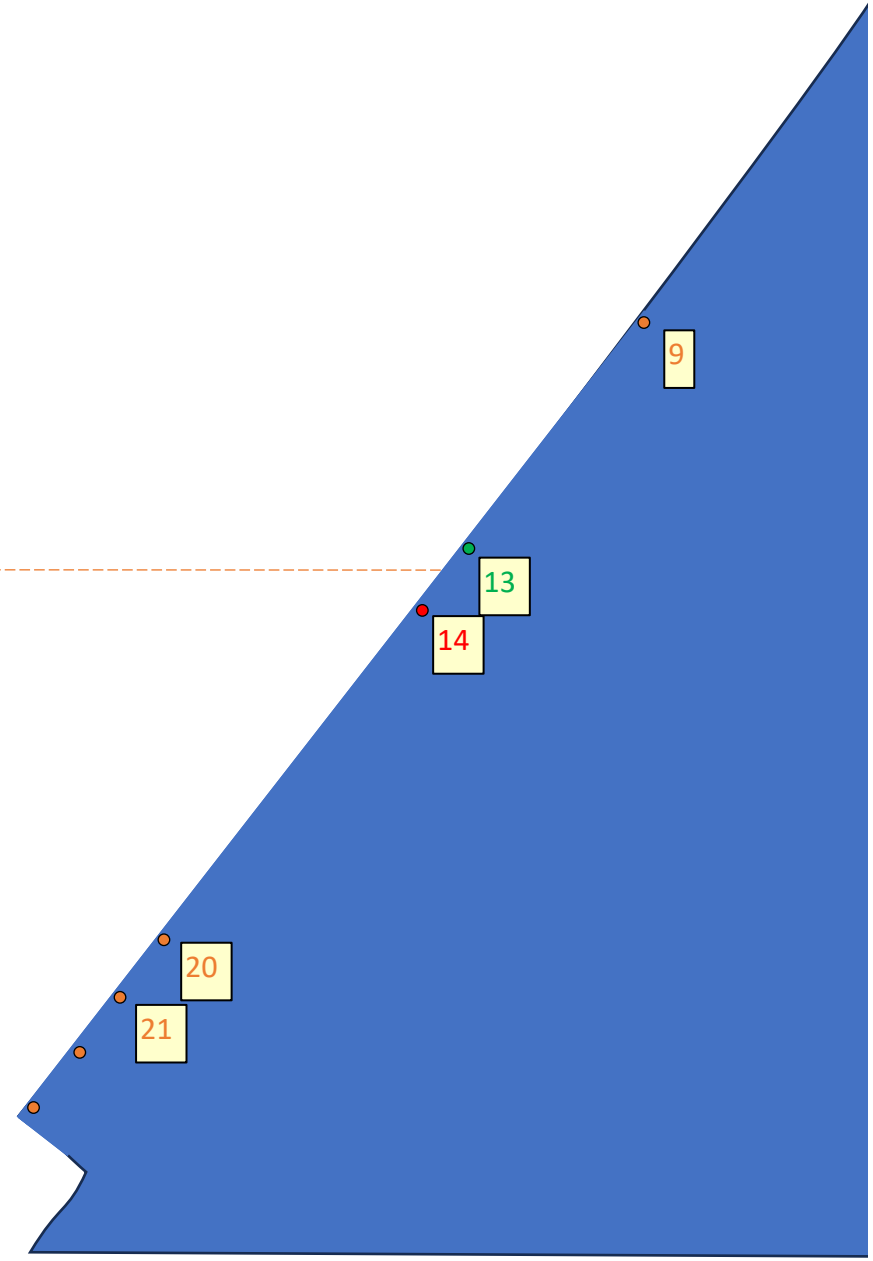
Boeing 757
at about
t=0.020 sec



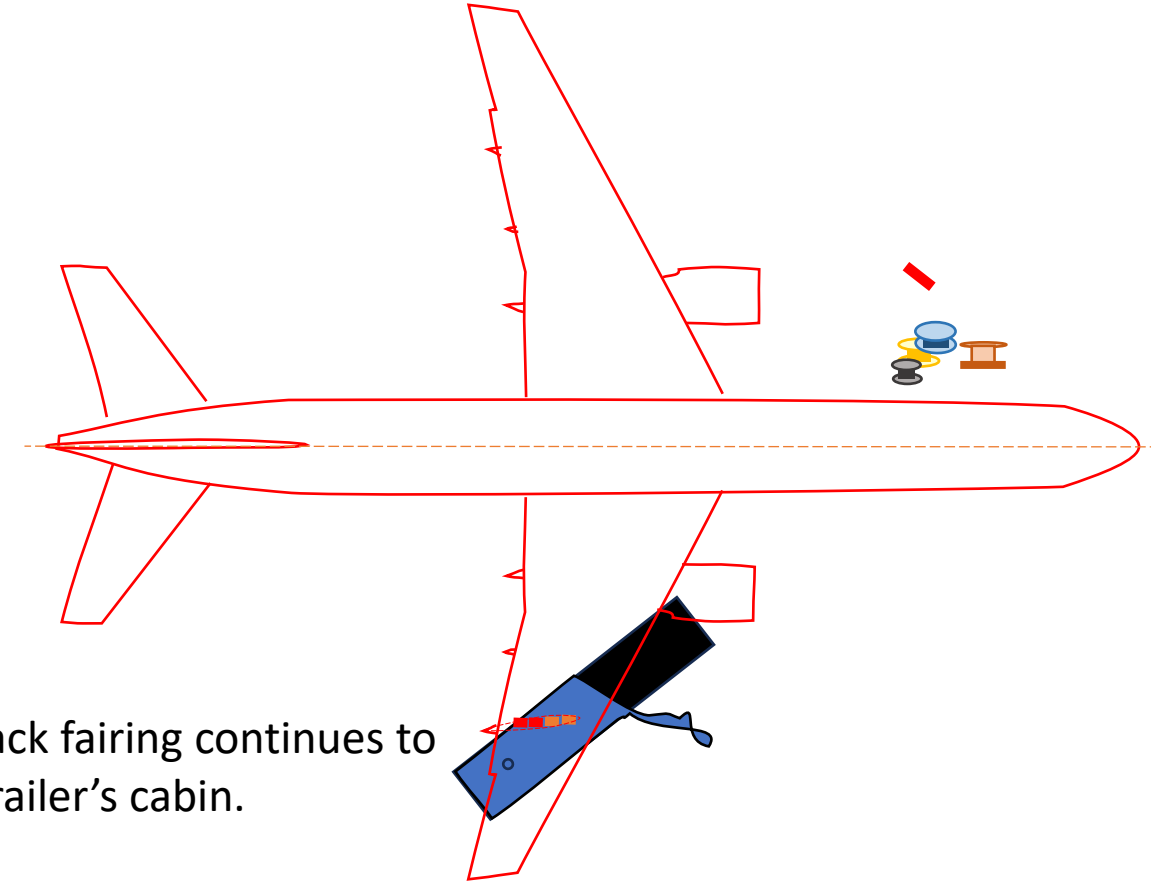
First penetration of the flap-track fairing into cabin roof occurs.

Collapse of the front struts due to the trailer's rotation, downward pressure and probable induced forward motion.

Engine is deflected toward the fuselage which accelerates the aircraft sideways.



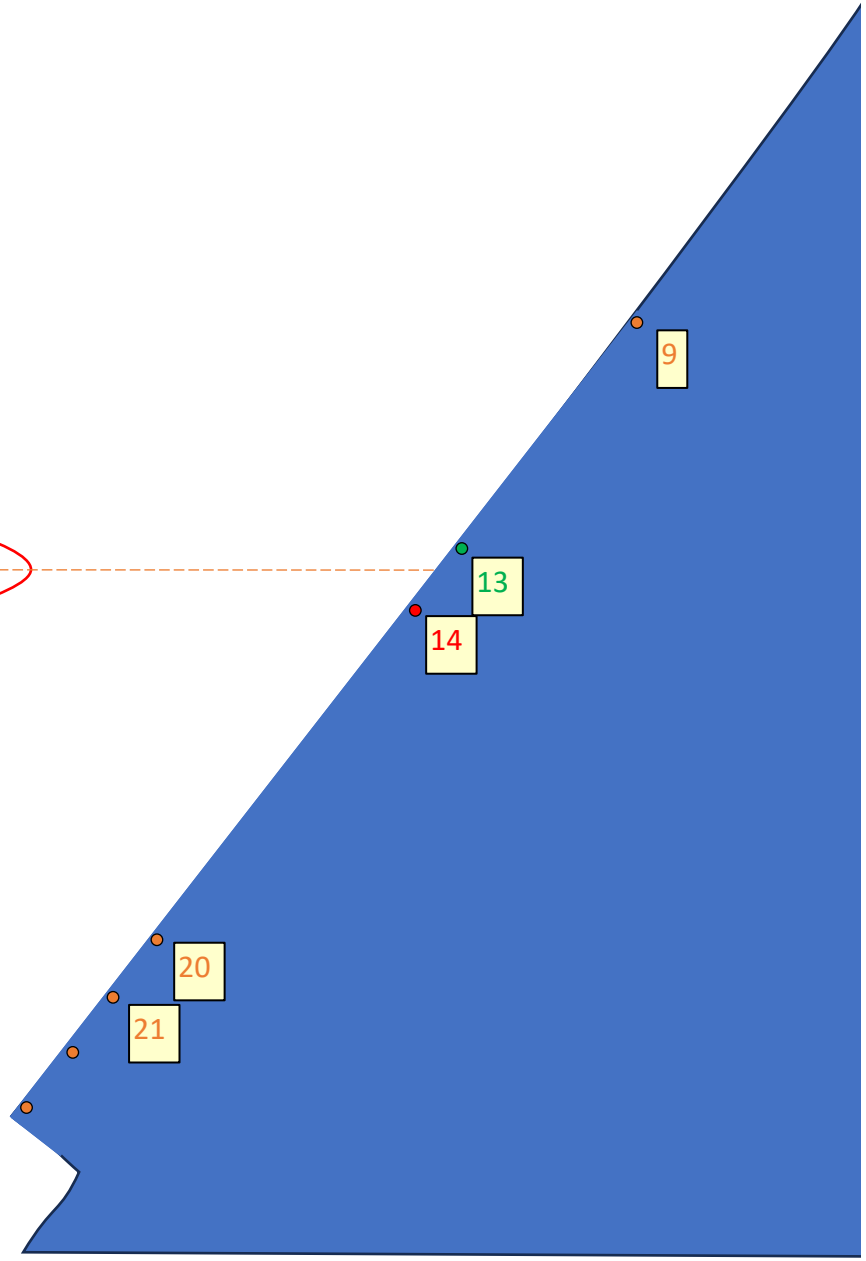
Boeing 757
at about
t=0.025 sec



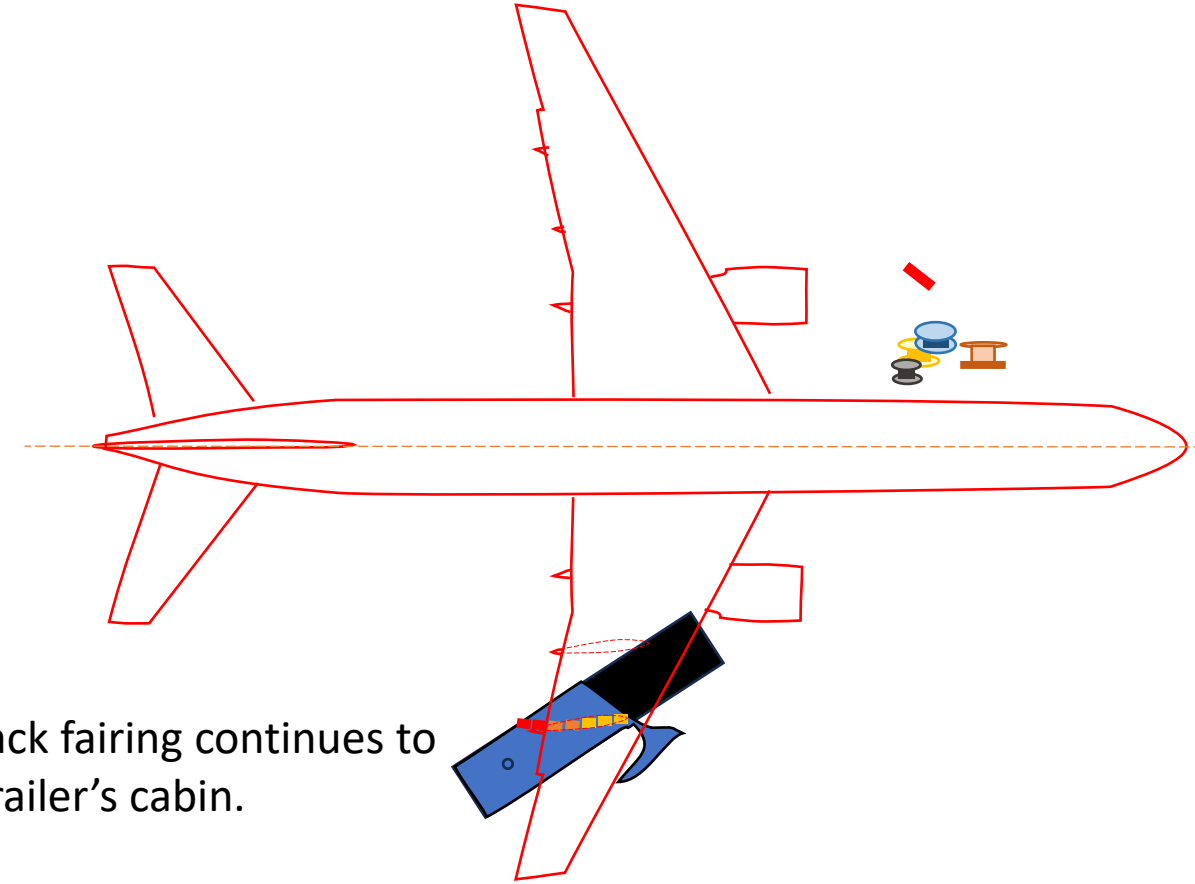
The flap-track fairing continues to score the trailer's cabin.

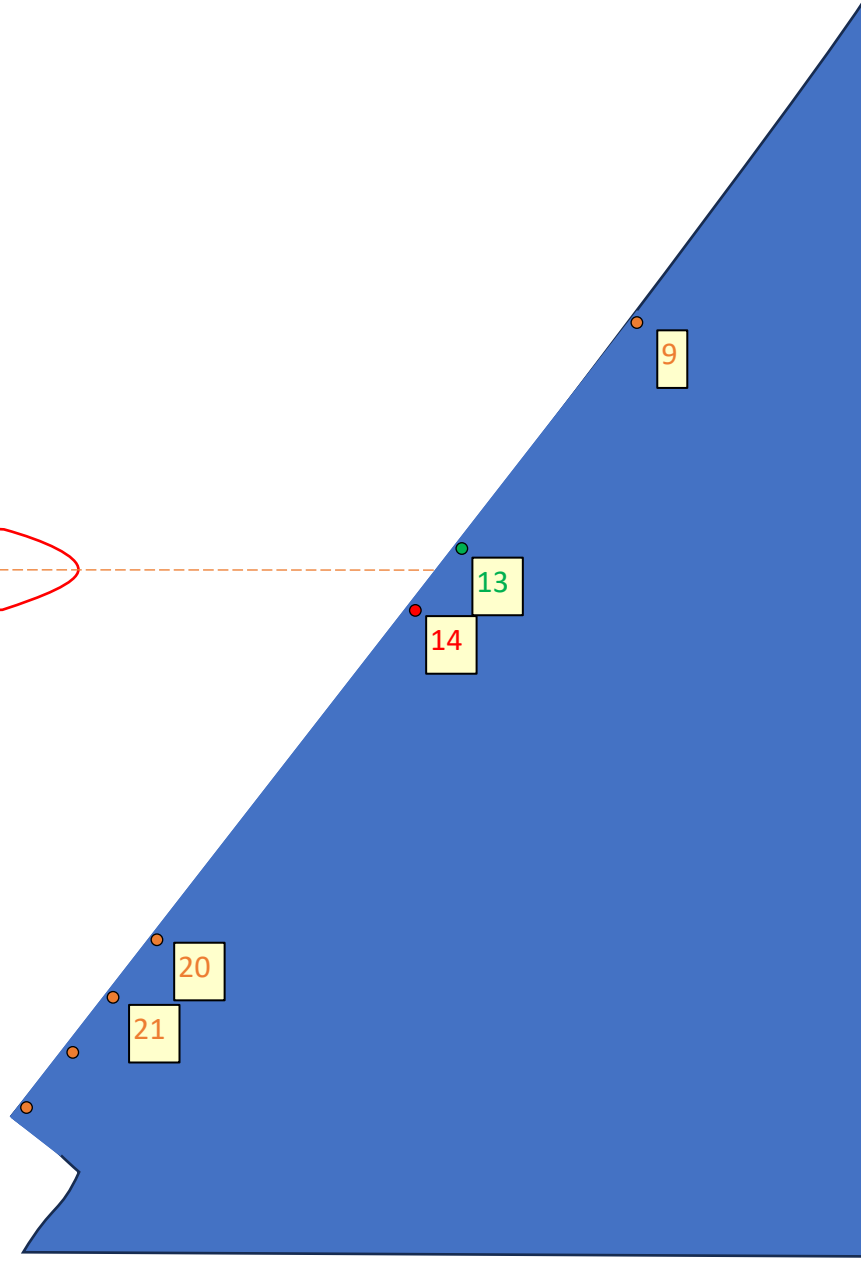
The structural integrity of the trailer's front cabin is completely obliterated.

Rotation of the trailer continues due to momentum imparted by the impacting right engine.



Boeing 757
at about
t=0.030 sec



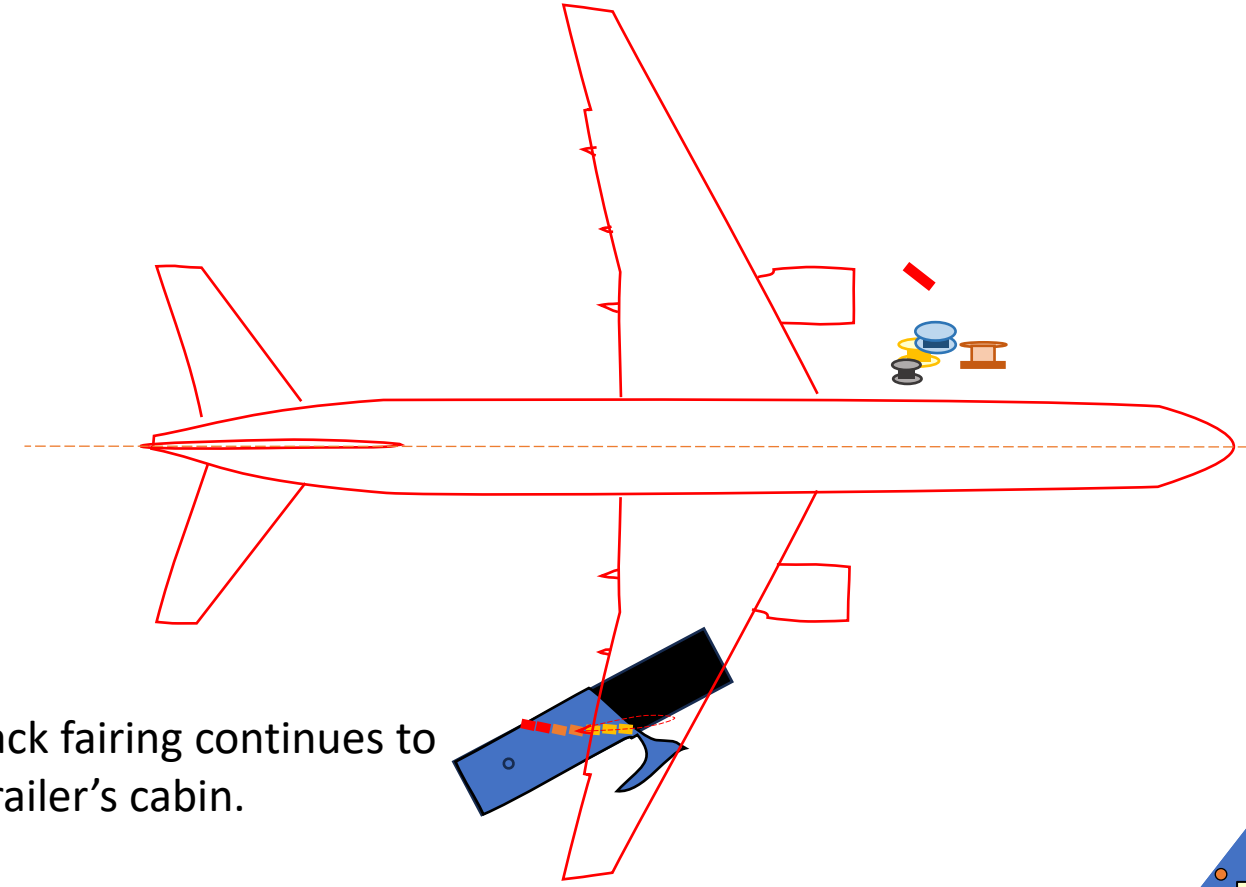


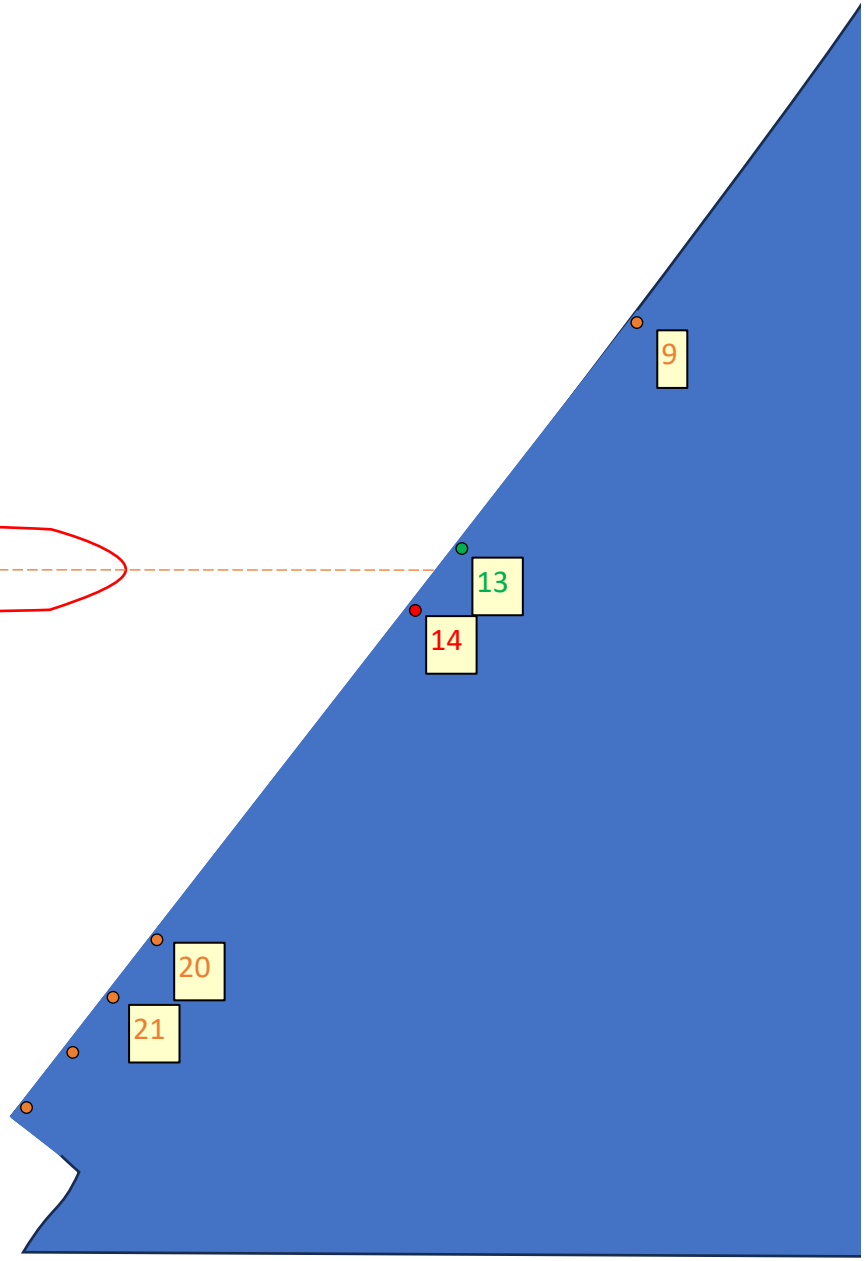
The flap-track fairing continues to score the trailer's cabin.

The flap-track fairing closest to the engine probably contributes to the cabin roof being sliced off.

Rotation of the trailer continues.

Boeing 757
at about
t=0.035 sec



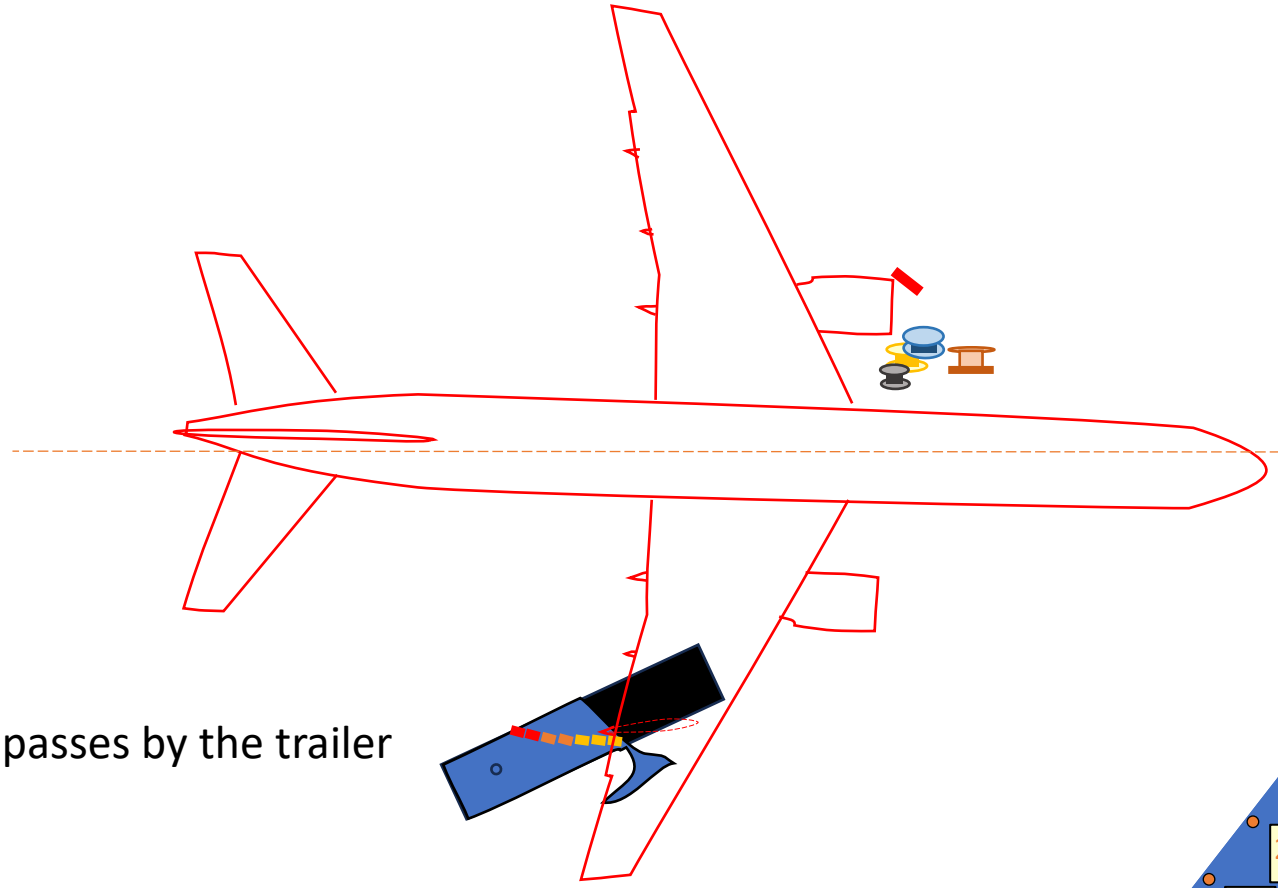


The flap-track fairing continues to score the trailer's cabin.

The scar of the flap-track fairing creates an arc in the trailer's cabin roof consistent with the Scott Boatright image.

Rotation of the trailer continues.

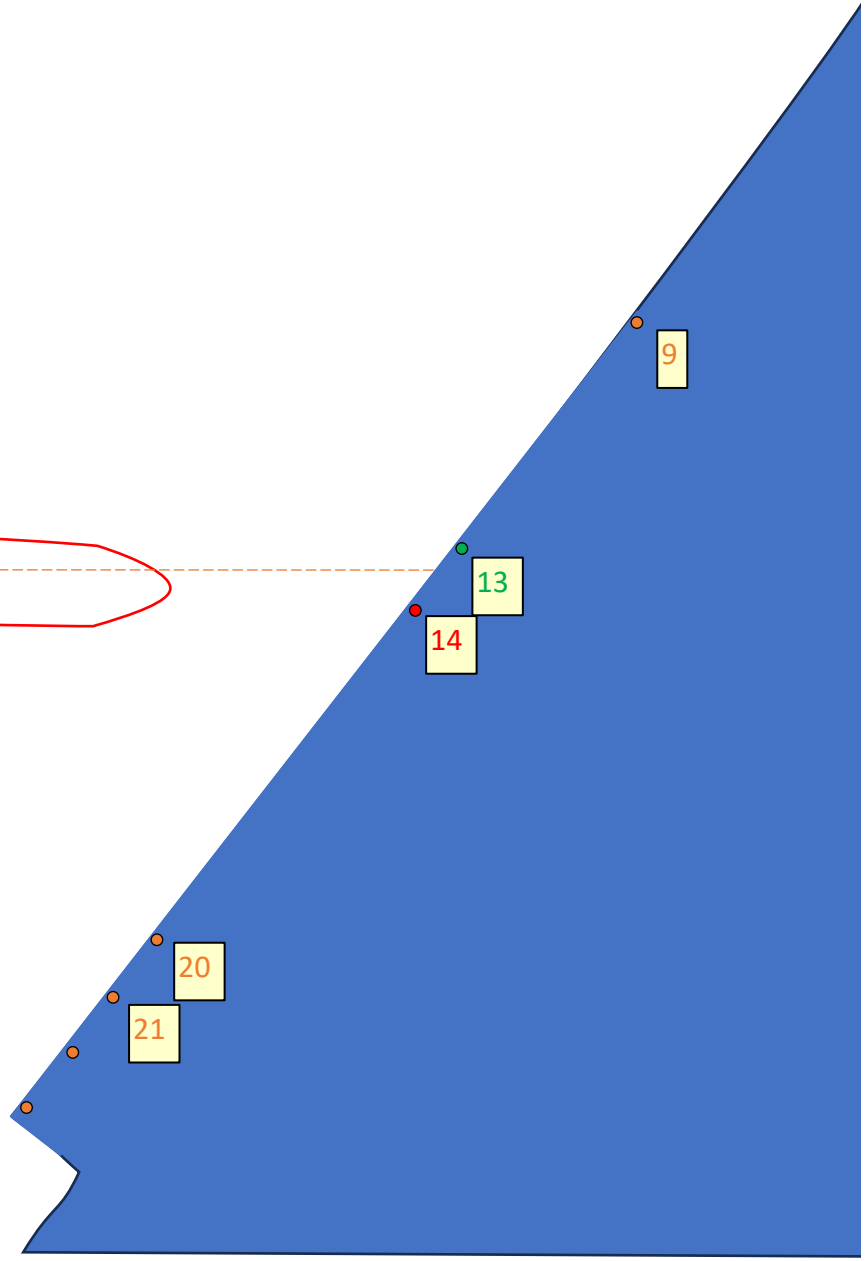
Boeing 757
at about
t=0.040 sec



The aircraft passes by the trailer completely.

Rotation of the trailer may continue due to momentum, but the trace is complete.

Turbulence from the air further disperses loose material.



The End