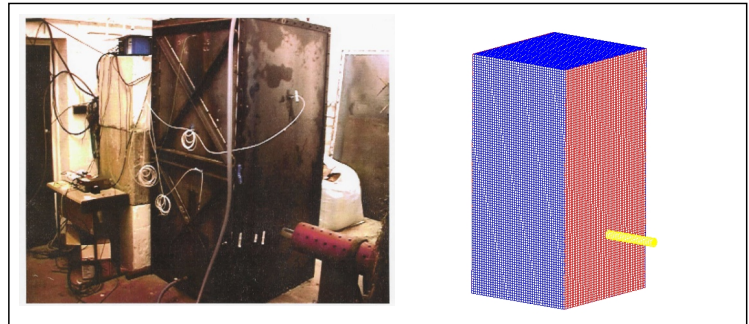


## Multiphysics Modelling of Aircraft's Fuel Tank Dynamic Failure

### Objective

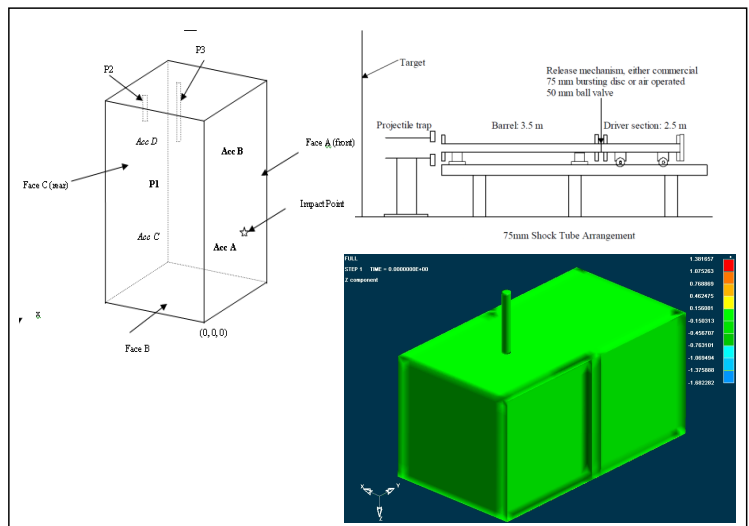
To investigate the accident involving the Air France Concorde in year 2000, where the effects of fluid structure interactions resulting from the impact of a fluid filled tank became a cause for concern.



### Methodology

Both numerical and experimental techniques were used to investigate the dynamic failure of the fuel tank.

LS-DYNA was used to numerically model the scenario, whereas the experiments were carried out using a shock tube facility.



### Outcome

The results showed that the projectile would not penetrate the tank, and a good agreement was seen between the experimental results and numerical predictions

