# NUMERICAL SIMULATION ABOUT BLAST EFFECT ON A COUNTERMINING VEHICLE

D. GOURLAY

MBDA France, 1 avenue Réaumur 92358 Le Plessis-Robinson Cedex, France

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This study was conducted to validate the survivability of a countermining vehicle and its driver after detonation of several kilograms of TNT. This study was carried out by numerical simulations using the hydrodynamic code RADIOSS, a FEA solver from ALTAIR Engineering. The assessment of the overpressure in air due to the detonation and its effect on the vehicle structure and on the driver was performed by just one simulation using the interface of fluid/structure coupling. In addition to the advantage of the single calculation, this type of modelling is composed of an Eulerian meshing of air and TNT completely independent of the Lagrangian meshing of the vehicle and its driver. This last feature offers the advantage of flexibility in term of modelling if there are several cases of detonation to take into account; the vehicle is simply moved through the meshing of air and TNT.