

# The Safety and Reliability Society

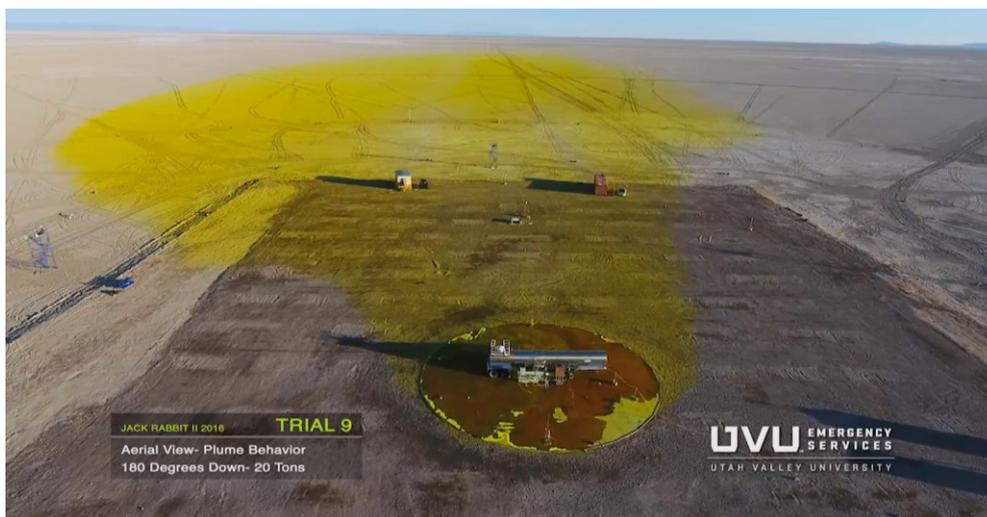
## Midlands Branch

**Evening Meeting: Tuesday 12<sup>th</sup> February 2019 at 6-30pm**

**Jack Rabbit II Chlorine Release Experiments and Modelling**  
**Speaker: Dr Simon Gant, Health and Safety Executive**

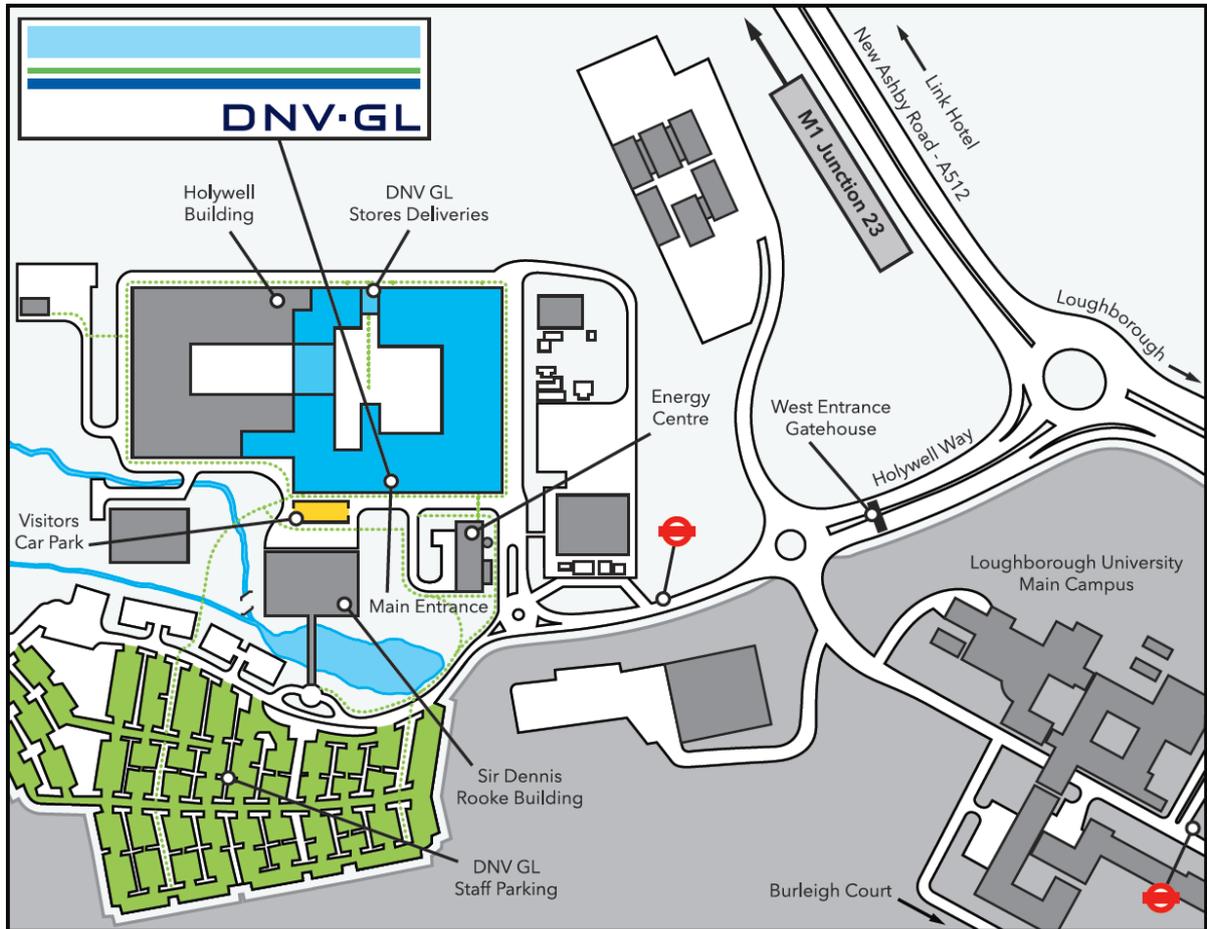
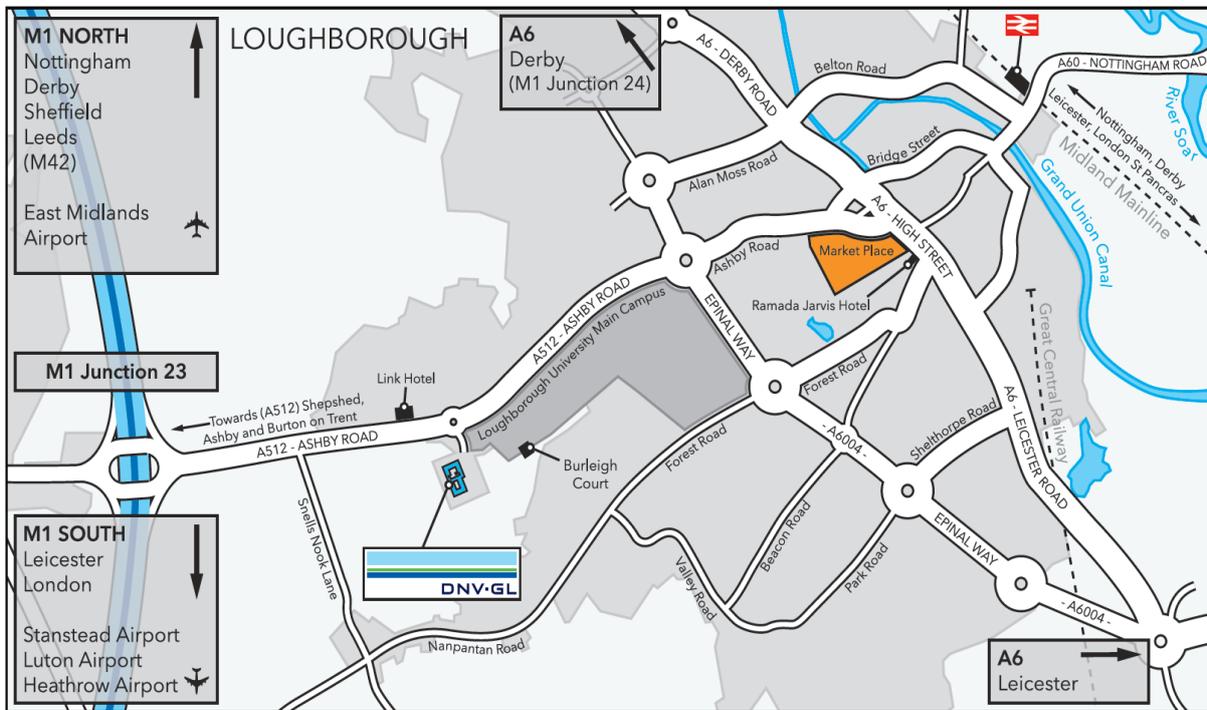
**Venue:** Swithland Room, DNV-GL, Holywell Building, Holywell Park,  
Ashby Road, Loughborough LE11 3GR

Attendance free, members and non-members welcome, refreshments available from 6.00 PM. Use DNV-GL car park (not visitor's car park), assemble in DNV-GL reception area



Photograph of Jack Rabbit II Trial 9 © Utah Valley University, <https://www.uvu.edu/esa/jackrabbit/>

**Summary-** In 2015 and 2016, the US Army conducted a series of large-scale chlorine releases at the Dugway Proving Ground in Utah, known as the Jack Rabbit II trials. The purpose of these experiments was to improve our understanding of pressure-liquefied chlorine releases and atmospheric dispersion, and provide useful practical knowledge for emergency responders. In total there were nine tests, with the final test involving the full discharge of a 20-ton chlorine road tanker. Concentrations were measured on an array of sensors to a distance of 11 km downwind. The experiments were principally funded by the US Department of Homeland Security and US Defense Threat Reduction Agency, Transport Canada and Defence Research and Development Canada, with significant contributions from the US Pipelines and Hazardous Materials Safety Administration and the US Transport Safety Administration. A host of other organizations contributed to the project with both equipment and effort in kind. Before, during and after these experiments, a group of dispersion modelling experts from around the world collaborated in simulating the tests to help configure the arrangement of sensors and evaluate the performance of models. HSE has been an active participant in this group. The talk will provide an overview of the Jack Rabbit II experiments and details of the modelling work undertaken by the HSE team.



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**Directions:** Holywell Park is less than two miles away from junction 23 of the M1 motorway (on the A512), signposted from the first roundabout. At the gatehouse say you are going to a meeting at DNV GL. Park in the car park shown in green.

Further information: Clive Musgrave 07740 047248; Harry Hopkins 07768 681497