



New Dimension Project: 18 Detection Identification and Monitoring Vehicles for the Communities and Local Government



new products

AES rolls-out DIM vehicles to tackle CBRN and HazMat

DETECTION INVESTIGATION and Monitoring (DIM) vehicles are to be supplied to fire and rescue services across England by AES after the company was awarded the £2m contract by the Department of the Communities (formerly the ODPM).

As part of the Government-funded New Dimension project, AES will supply 18 vehicles intended to enhance the present fire and rescue service capability to detect, identify and monitor hazards, as well as identifying substances at Chemical Biological Radiological Nuclear (CBRN) or Hazardous Materials (HazMat) incidents.

Based on the Iveco Daily 50 C 17 5.2 tonne extra high roof van platform, the vehicles are designed to transport a suite of DIM equipment to an emergency and carry out a detailed analysis of the unidentified substance in a suitable environment.

A spokesman for AES explained: "The vehicle layout was determined by the level of equipment carried. The driver cab is fitted out with specialist and resilient communication systems as well as navigation systems to facilitate deployment.

"The central or laboratory area carries specially stowed analysis equipment in a climatically controlled environment, multiple battery packs and the IT infrastructure.

"M1 Jany seats provided a slide and swivel seating which permits work to start as soon as the vehicle leaves its centre of operation. Power is supplied to the vehicle from both on-board DC and AC sources managed by a programmable logic-controlled electrical system.

"The rear equipment – predominantly consisting of personal decontamination systems, lighting and generator equipment – is stowed in a custom-designed carriage system allowing rapid deployment from the vehicle using a Perry Hydraulics Step Lift.

"The outcome specification required full analysis and development through 3D graphical modelling, stress analysis and prototyping. The significant risk identified early in the process was the human factors element, due to the operational environment and physical properties of the personnel decontamination equipment being deployed."

A series of user trials identified the processes the crew of four would need to undertake to complete their work, and associated hazards were, where possible, designed out.

The vehicles provide sufficient IT provision to enable the DIM to analyse their findings and email the results for further clarification from an international company when appropriate. The Department of the Communities have procured as part of the contract a full M-Flow back office system, receiving vehicle management and location information from the M-Flow FMS 500 data recorder. With this system the users can track and analyse the health of the vehicle continuously, working to improve their use, availability and care.

"The DIM contract has underlined our ability to work as a prime contractor direct for government, agencies and authorities," said the spokesman, adding that subsequent orders had also been received from Wales and Northern Ireland.