

# London Fire Brigade

## Provision of the DCT in the London Operations Centre



### THE CHALLENGE

London Fire Brigade (LFB) operates from more than 100 fire stations across London, and is the busiest fire and rescue service in the UK by call and incident volumes. As part of the consultancy and modelling support provided by ORH to LFB, we identified the opportunity to develop a bespoke piece of software for daily operational use in the control room. The requirement was for a visual display that combined the service's risk profile with live data on appliance availability to advise supervisors on appropriate back-up moves between stations, in order to maintain good risk and response cover.

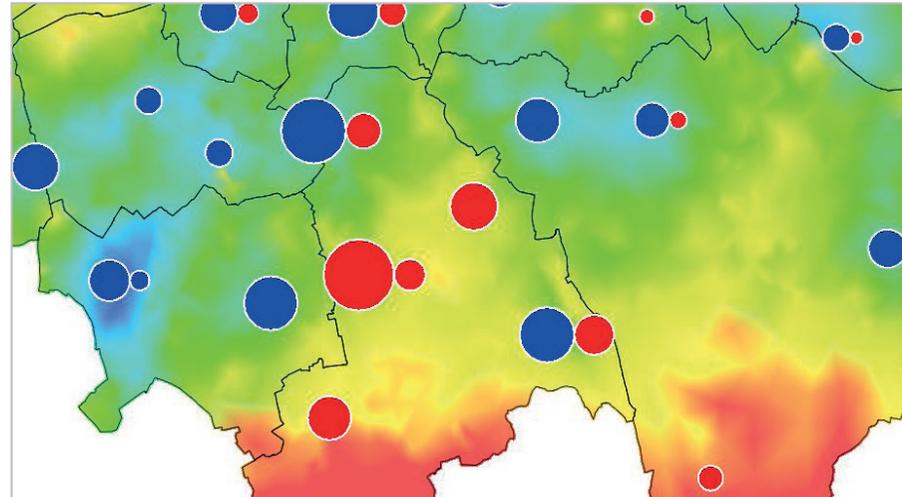
### ORH'S APPROACH

ORH met with control supervisors and managers to gain an understanding of the challenges faced in the control room and to develop the scope of the software. As ORH was providing ongoing support

to LFB, data on appliance availability, incident locations and underlying risk were already well understood, and there was a validated simulation model of the service with a calibrated set of travel times. These formed the inputs to the Dynamic Cover Tool (DCT). ORH initially presented a static version of the DCT to supervisors to enable them to refine its visual appearance and functionality. With these changes incorporated, ORH worked alongside the supplier of LFB's computer-aided dispatch system to establish a link to the DCT, in order to populate the tool with live data on appliance status. The DCT went live in February 2010 after a period of acceptance testing and user training for LFB control staff. ORH has continued to update the software on a regular basis, providing technical support and annual revalidation of the base data.

### RESULTS

The DCT has become integral to operations in the LFB control room. Supervisors can quickly and easily see the size and location of gaps in cover, the relative contribution of individual appliances and the relative fall in cover associated with each unavailable appliance. The level of coverage is calculated against the known pattern of serious incidents in London and the visual display indicates where appliance



unavailability has the greatest impact on coverage. Three different resource types can be viewed individually: pumps, fire rescue units and aerial appliances. Whenever there is a change in appliance status or location, cover is recalculated instantly, both locally and area-wide. Supervisors can also test the impact of hypothetical back-up moves before appliances are redeployed.

### KEY BENEFITS

- Design and functionality of the software developed with direct input from the client
- The DCT's clear visual display provides an instant overview of the level of appliance availability and risk coverage

- Ability to test hypothetical redeployments aids decision-making by control supervisors
- The DCT has made a valuable contribution to LFB's management of appliance deployments during industrial action periods, when available resources have been significantly reduced



**Control supervisors have come to rely heavily on the DCT display, particularly during periods of high appliance unavailability.**

David Wyatt, Head of Management Information, London Fire Brigade



Software Solutions – Dynamic Cover Tool

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