

(Figure 1)

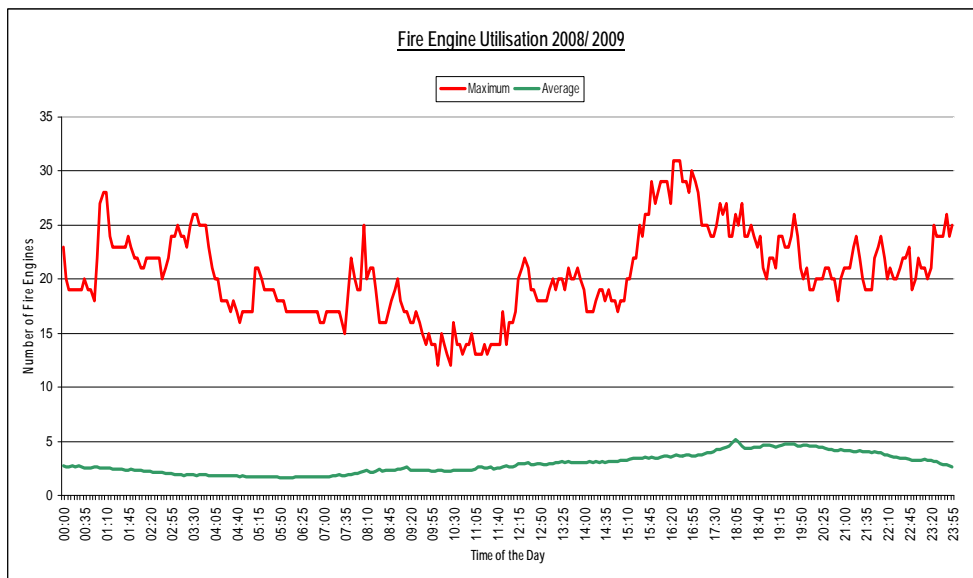
Risk management in the fire and rescue service is a very dynamic process. Risk in the community changes over time and space; it changes seasonally, daily and hourly. Integrated Risk Management (IRM) as a process, must monitor these trends to ensure that West Midlands Fire Service (WMFS) resources are appropriate to meet the risk posed to life, firefighters, property, economy, heritage and the environment, at all times and across a range of locations.

Figure 1 uses data from 2008/9 and illustrates how incident demand changes throughout the 24 hour period against the number of fire engines available. The pattern depicted by the red line is consistent with previous years' analysis; it clearly shows that WMFS respond to more incidents towards the late afternoon and early evening period and fewer incidents during the early hours of the morning.

The green line depicts the number of fire engines WMFS has available for immediate response during the day. Between 10am and 10pm WMFS has 61 fire engines on the run. Between 10pm and 10am WMFS have 48. This shift pattern is in line with the risk present at those times of the day, as a constant level of fire cover during varying demand periods would not be an efficient use of our resources.

When determining the number of resources WMFS needs, IRM must not only look at the number of incidents attended but also the numbers of resources used at each incident. Figure 2 depicts the number of fire engines mobilised on average for every 5 minutes of a 24 hour period during 2008/9 (green line) and also the maximum number of fire engines in use for every 5 minute period of a 24 hour day during 2008/9 (red line).

It is clear from Figure 2 that WMFS' average fire engine commitment is significantly lower than at times of maximum demand during 2008/9. IRM must seek not only to provide the very best service during a 'normal' day but also have the ability to respond to major emergencies if required; therefore we have a maximum of 61 fire engines available during WMFS' busiest periods to ensure that effective cover is maintained for our 'routine' response work, and so that WMFS have the resilience to deal effectively with infrequent, but demanding emergency scenarios or times when there are a number of larger incidents in progress simultaneously.



(Figure 2)