

By: Assistant Director, Response and Training
To: Planning and Performance Committee– 27 April 2015
Subject: OPERATIONAL QUALITY ASSURANCE
Classification: Unrestricted

FOR INFORMATION

SUMMARY

This report updates Members on the progress made and current developments in the Operational Quality Assurance Project. It includes examples of operational incidents that have subsequently influenced new techniques and tactics for resolving incidents, or which have led to the procurement of innovative equipment.

CONCLUSION

Members are requested to:

1. Consider and note the contents of the report.

LEAD/CONTACT OFFICER: Operational Quality Assurance Manager – Dave Harris
TELEPHONE NUMBER: 01622 692121 ext 8399
EMAIL: dave.harris@kent.fire-uk.org
BACKGROUND PAPERS: None

COMMENTS

Background

1. Members will be aware that a range of measures are used to manage performance which are primarily quantitative, measuring “how fast”, “how many” and “where”. Many of these feature in the performance update reports. Few, if any, of these can be argued to be qualitative, e.g. was the service provided, in sometimes distressing circumstances, a “quality” product? To fulfil this function a quality assurance process has been developed.
2. The term quality assurance (QA) captures both operational QA and the incident debrief process used by firefighters to review incidents attended. This year over 400 incident QA reports have been completed, as well as 12 incident debriefs. This information has been used to identify areas of operational improvement and good practice.

Review of Operational QA Framework

3. The QA system is constantly being improved and has been recently reviewed against outcomes from recent reports from the Chief Fire Officers’ Association and an internal audit report. The review has focused on whether crews are doing the right things at incidents, and also whether they are doing them in the most effective and appropriate way. This approach to operational effectiveness draws information from a number of areas to ensure that the QA process is embedded in the organisation. The framework consists of the elements described in the following paragraphs.
4. **QA audits** - Incident-ground performance is targeted at a number of key areas and incident types as set out below:-
 - All Level 3 (over eight fire engines) or above incidents;
 - Incidents where firefighters have been injured;
 - Incidents affecting roof structures;
 - Incidents where COBRA cold-cutting equipment has been used;
 - Operational severity of building fires;
 - Those incidents falling outside the average time taken to resolve any particular incident type.
5. **Tactical Advisor (TA) reports** - The performance of Incident Commanders at operational incidents is monitored through the role of Tactical Advisors (TA). This role assesses command performance and the effective tactical use of the resources available to resolve the incident. It provides an audit trail to evidence standards,

development requirements, and any remedial actions. This will look to complement the existing competency framework conducted through training.

6. **Feedback** - Systems are now in place so that anyone can make an evaluation on equipment, training, procedures or general feedback. This data will be used to make improvements when reviews take place. However, any risk-critical issues will be dealt with as soon as is reasonably practicable utilising organisational management systems.
7. **Incident Debriefs** - Debriefs are opportunities for personnel to reflect on the operational response in order to identify if any issues need to be addressed to improve effectiveness. Every incident is the subject of a 'hot' debrief at the scene, including other responders from partner agencies where applicable. Any Level 3 incident or above is automatically subject to a formal debrief, but this can be requested for any incident where the commander or tactical advisor believes this is necessary.
8. **Annual Quality Assurance (AQA)** - The purpose of the station AQA process is to supplement, and where appropriate verify, standards against other recording systems used by the Authority (i.e. workforce planning system, training records, Tactical QA forms, etc). The result of the completed AQA process will be compiled and used to identify if there are any trends in performance.

Examples of Improvements arising from the QA Process

9. A number of improvements have been generated by the QA Process and these are highlighted in the following paragraphs.
10. **Road Traffic Collision (RTC) rescue equipment** - Feedback from crews identified that steel used in the construction of modern cars was posing difficulties for the current hydraulic rescue equipment to cut through, and the equipment had a limited capability to deal with incidents involving heavy goods vehicles. This information was then used to inform the Operational Capability Review (a detailed report on which appears elsewhere on the agenda for this meeting). The Operational Capability Review subsequently recommended the procurement of an enhanced cutting capability. Eleven strategic stations have now been equipped with new 'Heavy Rescue Pumps'. These fire engines carry heavy duty hydraulic rescue equipment, advanced vehicle stabilisation equipment, and equipment to deal with RTCs involving the many heavy goods vehicles that traverse the county. Feedback from crews has identified that the new equipment has significantly improved operational response. The equipment was described by one crew as "a game-changer".
11. **Ventilation at property fires** - It was identified by a Tactical Advisor that crews were not always considering the use of ventilation equipment at property fires at the

appropriate time. Crews have now received additional guidance in use of the ventilation equipment, with the inclusion of case studies to share best practice from other firefighters. Tactical advisors have been given direction to ensure that there is a consistent approach to using this equipment.

12. **Door-opening equipment** - A crew manager identified that when firefighters had to force entry into properties or vehicles, there were occasions when they were causing considerable damage to windows, doors and doorframes. This was not always proportional to the degree of urgency or requirements of the incident. He then carried out some research which he forwarded to the QA team. Collaboration with Kent Police as to the most appropriate methods of door entry has now led to procurement of small tools that will enable swift entry without excessive damage to most properties and vehicles.
13. **Powered diamond ring-cutters** - Following a number of QA reports it was agreed to increase the provision of powered diamond ring-cutters from five to eleven. These cutters are used to remove rings or other items that have got stuck on people's fingers. The other style of ring-cutter that is on every station has served well, but recently it has become more common for people to have high-tensile metal rings instead of the traditional gold rings. The old style cutters had difficulty in cutting through these.
14. **Maidstone Dance Studio incident** - In November last year, crews from Maidstone attended a serious fire in a dance studio within the town that required four fire engines to attend. The initial crews were faced with one wing of the building well alight with fire spreading quickly through the roof void to the rest of the building. They immediately utilised a combination of Compressed Air Foam, COBRA cold-cutting equipment and Positive Pressure Ventilation fans to control and extinguish the fire, whilst limiting the amount of water damage due to firefighting operations.
15. Improving our service to the public is a key part of any QA. Following this incident, fire engines will now be equipped with plastic plumbing connections to prevent water damage when plastic fittings are used in central heating systems. These fittings melt early in fires and can be a cause of considerable water damage. The speed of water isolation is crucial and plastic fittings will allow this to happen safely and quickly.
16. This incident was noted on a routine QA audit as best practice due to the use of the new innovative equipment now on appliances and the successful conclusion to the incident. Social media for the dance studio had comments such as "The Fire Brigade did an absolutely stunning job" and "We are just going to start the clean up operation now. I would like to say that we are still open and will remain open as normal".

17. The fact that a Kent business suffered such a serious fire, but was able to re-open for business the next day, is testament to the investment in new firefighting tactics and equipment, as well as the efficiency of operational crews.

IMPACT ASSESSMENT

18. The new approach to operational quality assurance brings together feedback from a number of sources into one clear process that ensures each element complements and informs the next.
19. The examples of improvements noted in this report indicate the positive impact this new approach has already had for the firefighters, businesses and communities of Kent and Medway.

CONCLUSION

20. Members are requested to:
 - 20.1 Consider and note the contents of the report.