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Buckinghamshire and Milton Keynes Fire & Rescue Service Water Rescue Training Review Final Report

May 2015

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Scope

Buckinghamshire and Milton Keynes Fire and Rescue Service (the service) covers an area from the outskirts of London to the south midlands. The service provides a number operational capabilities including water and flood rescue. The service has requested Babcock Training Ltd to carry out a review of its current water rescue training programme. The service currently has approximately 210 operational staff trained in water rescue, ranging from Level 2 First Responder through to Level 5 Water Incident Manager. This report outlines the findings of this review and makes recommendations on how the service could progress their water rescue training moving forward.

The review covered the following agreed areas:

1. To review the existing arrangements for water rescue training to ensure compliance with mandatory guidance/best practice for fire and rescue services and other agencies that operate a similar response
2. To provide a gap analysis of what would be required for the existing Supervisory Officers on the boat crew stations (Newport Pagnell & Beaconsfield) trained to water rescue instructor level
3. To review and provide recommendations for water rescue training facilities, the emphasis being on supporting the need for a local approach to training operational employees delivered/assessed by the specialist boat Crew and Supervisory Officers. This should include the use of specialist water training facilities e.g. Lee Valley
4. To make recommendation on what training delivery and assessment would need to be completed by B&MKFRS crews to maintain the current 'CFOA Module 2 Water Rescue First Responder' capability and over what period would refresher training need to be completed. This should include options for local delivery and delivery via an external provider
5. To review the current arrangements and make recommendation for a refresher programme for the boat crews to enable them to maintain the current capability
6. To identify potential savings possible from implementing changes to the existing water rescue training programme. This should include options for various delivery methods

Each area above is addressed within this report. The findings and the recommendations for future actions and requirements are detailed for each area. At the end of the report, a brief summary of actions is listed with a reference to some further considerations.

Findings

To review the existing arrangements for water rescue training to ensure they comply with mandatory guidance/best practice for fire and rescue services and other agencies that operate a similar response.

All of the current water rescue training required by the service is currently outsourced to external suppliers, these include:

- Level 2 (DEFRA Module 2 First Responder) outsourced to Longridge Activity Centre
- Level 3 (DEFRA Module 3 Swiftwater Rescue Technician) outsourced to Rescue 3
- Level 4 (DEFRA Module 4 Swiftwater Rescue Boat Operator) outsourced to Rescue 3
- Level 5 (DEFRA Module 5 Water Incident Manager) outsourced to Rescue 3

The above courses each have their own complete training characteristics, including numbers of staff required to be trained to this level. Consequently, they have been reviewed in a manner that reflects this.

Level 2 (DEFRA Module 2 First Responder)

The Level 2 course is currently being delivered at Longridge Activity Centre. The training detailed in the Powerpoint presentation meets the required standards. However, it has been identified that correct supporting documents need to be developed to ensure training continuity and reduce trainer discrepancies. These discrepancies have been identified in regards to lesson content and structure leading to potential for differences of interpretation for candidates. No standardisation reports or documents could be identified that assist in maintaining that continuity of training. Furthermore, training content should not just meet national standards and best practice; it should also meet the needs of the service and its policies. If any relevant changes to service policy are made, the course content must be reviewed. Additionally, accreditation of the course and its trainers is an item requiring further examination. This is examined in detail below, including identification of a potential solution.

During the review, an interview was conducted with the Head of Service Delivery, Greg Smith, who identified that a review of the current commitment of all operational staff being Level 2 trained may need to be carried out. Although a detailed breakdown of water incidents was not available, examination of incident data provided indicates scope for consideration of a possible reduction in the number of required operational staff trained to Level 2. This could be achieved by targeting staff based in areas prone to water incidents, although this has not been examined in detail within this review.

Level 3 (DEFRA Module 3 Swiftwater Rescue Technician) outsourced to Rescue 3 & Level 4 (DEFRA Module 4 Swiftwater Rescue Boat Operator) outsourced to Rescue 3

Level 3 training meets both national standards and current best practice but is not considered to meet the needs of the service in full. During the review, a selection of staff from both boat stations were involved in discussion events to explore areas of water rescue training. A key point identified was the non-relevancy of the Rescue 3 references to National Fire Protection Agency of America (NFPA) standards. Also identified by the staff was some variation from the instructors delivering the course. This has led to some confusion and debate amongst staff on return to station.

The Rescue 3 course has been designed for a generic audience and therefore the training provided is not always in line with the service's own policies and practices. For example, casualty care is not in line with the service's clinical governance. The rope equipment being used is different to the equipment used by service staff, including different types of rope, carabineers, rope grabs and the use of industrial descenders. As the course is not currently assessed, the service could be vulnerable to challenge in regards to the training and competency of its staff.

Quarterly maintenance of skills training is being carried out locally. However, the DEFRA Concept of Operations requirement to train in grade 2 conditions is not routinely met due to variation in environment and local conditions.

Grade 2: Moderate – the water is faster and rapids are more frequent: rocks, waves and small stoppers are found but always with an obvious channel. For Level 4 it should be a marine equivalent with suitable and appropriate hydrology features for all aspects.

Therefore, the current maintenance of skills training neither meets the national standard nor current best practice.

The requirement for maintenance of skills training, set out in the DEFRA Concept of Operations, is for all water rescue trained staff to requalify on a tri-annual basis. This is being met through staff attending the Rescue 3 training course every three years. However, this does not fully address the skill fade being experienced by those staff in the intervening period. This issue is examined further below, with a potential solution outlined.

Level 5 (DEFRA Module 5 Water Incident Manager) outsourced to Rescue 3

The Level 5 course meets both the national standards and current best practice. However, there are a number of areas that require action to ensure that the current Level 5 staff fully meet the requirements of the DEFRA Concept of Operations, which states:

- Refresher and sustainability, work based training, the manager should record activity based training in relation to the subject;
- Refresher Training

In order to remain current and up to date this competence should be refreshed on a three yearly basis. However, personnel may be required to show logged work based training on management systems, command and control and specific water issues.

It is suggested that each Level 5 trained staff member should maintain a record of training and operational activity performing the role of Water Incident Manager. Current best practice would also recommend that all Water Incident Managers be involved in at least one water search and rescue exercise per year to maintain their own skill set.

DEFRA training standards require the Level 5 qualified staff to maintain competence on some key aspects. These include ICS pertaining to water rescue incidents and use of the online hazard manager software supplied by the Met Office and the Flood Forecasting Centre following the Pitt Review. The review team explored options with Level 5 staff for keeping up to date with the information and skills listed above. The options identified were for:

- A lead officer to attend workshops and cascade the information back to remaining Level 5 staff
- All Level 5 qualified staff to attend an annual workshop

The second option was the preferred amongst the staff.

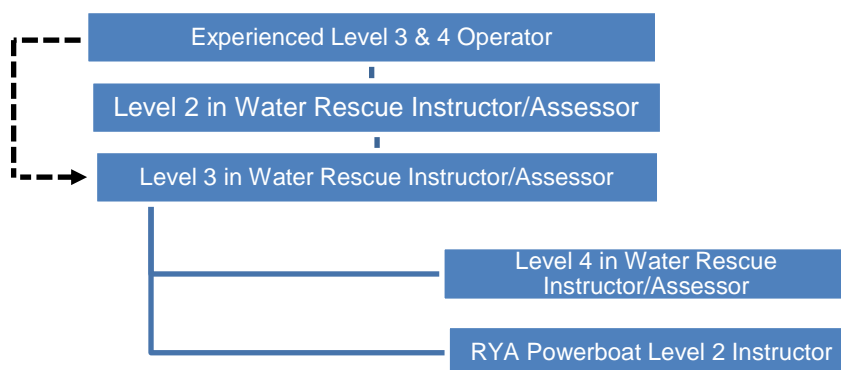
To provide a gap analysis of what would be required to get the existing Supervisory Officer on the boat crew stations (Newport Pagnell & Beaconsfield) trained up to water rescue instructor level including Level 5.

A review of the current training level of the identified Supervisory Officers has been carried out. Based on the evidence gained through station visits and discussion events, the review team feel that the Supervisory Officers are at the required level to progress to Level 3 in Water Instructor/Assessor status. This is the first of incremental stages of development as illustrated in Figure 1 below. The best practice used to guide the review team through this process is the DEFRA Water Safety and Rescue Training Guidelines that state:

“The in water instructor/assessor qualification cannot be defined as a pre-determined course, at the end of which an individual is deemed to be an instructor. It is however a progressive development of an individual through the various levels, to a stage where they are able to draw on a range of related skills and knowledge, combines with proven instructional skills to deliver a recognised course. Due to the hazardous and unique nature of the water environment, it is deemed necessary for an instructor candidate to have a consolidation period between courses/levels to enable them to gain and demonstrate competence”.

This training is available from a number of external providers but each will have their own set of pre-course requirements and time frames. The review team feel that all identified Supervisory Officers should work towards gaining the in Water Instructor/Assessor qualifications and the chosen external provider verifies the service's broader water rescue courses and qualifications.

Once Level 3 Water Instructor/ Assessor status has been achieved, and following a consolidation period to develop experience, identified Supervisory Officer can progress to the Level 4 in Water Instructor/Assessor qualification. It is recommended that identified Supervisory Officers gain the Royal Yachting Association (RYA) Powerboat Level 2 Instructor qualification as this would assist with progression of the In Water Instructor/Assessor qualifications and would provide external accreditation in boat instruction on the tidal Thames and other inland waters.



You can progress straight to Level 3 in Water Rescue Instructor/Assessor and this will allow you to deliver both Level 2 and Level 3 Courses

Figure 1 Flow Chart for in Water Instructor/Assessor Training

To review and provide recommendations for water rescue training facilities, emphasis being on supporting the need for a local approach to training operational employees delivered/assessed by the specialist boat crew Supervisory Officers.

Level 2 (DEFRA Module 2 First Responder)

The Level 2 (First Responder) courses are currently being run and certificated by the staff at the Longridge Activity Centre. The courses are programmed during the winter period with all operational staff attending the one location. The review team visited Longridge Activity Centre and met with the chief instructor. During the visit, it was discovered that the qualifications of the Longridge instructors delivering this training varies from year to year due to staff changes. The main qualification held to deliver this course is a Rescue 3 Swiftwater Rescue Technician qualification. No Level 2 Instructor qualification is held by any of these instructors which is the key qualification required to run and certificate this course, as outlined in the DEFRA Water Safety and Rescue Training Guidelines. For this reason, it is considered that the service could be vulnerable to challenge should a safety related event occur.

Longridge Activity Centre is an ideal location for the training to take place and the facilities meet the required standards for the safe and structured delivery of this course. However, in the opinion of the review team, a suitable venue should be identified in the north of the service area to reduce travel time and the likelihood of courses being cancelled due to late or non-attendees. A suitable additional venue in the north would also provide some contingency for situations like poor water quality, operating problems at a venue etc. The boat teams mentioned during discussions that they could identify at least two locations in the north of the county that would be suitable for Level 2 training.

All equipment being used for the course is owned by the service and is stored at the Longridge Activity Centre between courses. The current training demand is to qualify and maintain the qualifications over a three year period for approximately 210 members of staff. If a competency based assessment approach were implemented to requalify each member of staff annually during an exercise the service would reduce skill fade and better evidence continued competence. This could potentially be implemented to run alongside the Level 3 and 4 competency based assessment exercises to significantly reduce costs.

Level 3 DEFRA Module 3 Swiftwater Rescue Technician

The service currently has 15 Level 3 Swiftwater Rescue Technicians. This training is currently being delivered by Rescue 3 in Wales. Every three years, all 15 Swiftwater Rescue Technicians return to Wales to requalify with Rescue 3. This training could be achieved using local training facilities like Lee Valley White Water Centre in Waltham Abbey or the Nene White Water Centre in Northamptonshire. Lee Valley can be accessed from Newport Pagnell and Beaconsfield in less than 90 minutes. These venues not only meet the requirements for the initial Swiftwater Rescue Technician courses but also the maintenance of skills training. There is a cost associated with the use of these venues but this would be offset by the reduction in travel time and accommodation costs compared to Wales. Additionally, there is scope to share the venues with other agencies thus reducing the cost further.

Level 4 DEFRA Module 4 Swiftwater Rescue Boat Operator

The service has 10 Level 4 Swiftwater Rescue Boat Operators. The training for the Level 4 staff is currently being delivered by Rescue 3 in Wales. Every three years all 10 Swiftwater Rescue Boat Operators return to Wales to requalify with Rescue 3. The points identified in the Level 3 training review would be mirrored into this area leading to utilising local training facilities like the tidal River Thames on spring tides for example. This would reduce the need to travel to Wales to meet the requirement of the DEFRA Concept of Operations. The current training utilises different equipment to the operational equipment used by the service staff. By taking a local training approach, it would facilitate the same operational equipment being used for training, which in turn would be more relevant to the service's needs.

It was also identified during the review that each watch as a whole has never exercised or trained together in a grade 2 water environment. This presents a missed opportunity to work safely as a water rescue team in a

hazardous environment. The service trains its staff together as much as possible in other operational capabilities, why should water rescue be different? This would be addressed if the recommendation of local training were to be adopted with the whole watch/ team attending a training and assessment exercise.

Level 5 DEFRA Module 5 Water Incident Manager

The service has 10 Level 5 Water Incident Managers trained by Rescue 3. This training meets the national standards but it is felt that there is scope for this training to be better suited to local arrangements and policies, rather than just national arrangements. The DEFRA Water Safety and Rescue Training Guidelines are used to design this training, which contain a paragraph:

Individual agencies should assess the water related risk within their area and decide clearly what activity is to be undertaken. The training modules permit agencies to specify a level of competence to allow staff to operate within the identified risk areas.

With this in mind, it is suggested that all Level 5 trained staff attend regular training days with the boat crews and attend annual workshops to maintain skills and competence. The whole programme could be developed in house in conjunction with an external body to ensure the training meets the national standards. The review team would also suggest that the external verifying body would carry out the Three yearly training allowing the yearly workshops to be delivered in-house by the identified Supervisory Officers trained to a Minimum of Level 3 and 4 in Water Rescue Instructor/Assessor and holding a Level 5 qualification. Best practice should be maintained through the utilisation of appropriate case studies such as the Umberleigh rescue and Somerset levels reports.

To make recommendation for what training delivery and assessment would need to be completed by B&MKFRS crews to maintain the current 'CFOA Module 2 Water Rescue First Responder' capability and over what period would refresher training need to be completed and include options for both local and external delivery.

This training should be split over two venues, north and south of the county as referenced above. Longridge Activity Centre is suitable to remain as the southern training venue. The training should be delivered by in house trainers (once developed) selected from the specialist boat crews located at Beaconsfield and Newport Pagnell. The instructor training should be carried out by an external company with a yearly re-verification, along with syllabus review and standardisation meetings.

Taking the DEFRA Water Safety and Rescue Training Guidelines into account, the experience the crews have at the water stations already meets the requirements as outlined on page 5 above. The only training they require would be the Level 2 Instructor course and verification. The boat crews have the experience, skill and knowledge to make the training more relevant to the types of calls the Level 2 staff will be attending. This approach would assist in building a good working knowledge and relationship between the boat crews and all other operational staff as strong working relationships are built during training. This will lead to improved risk mitigation and a safer working environment, consequently placing the service in a more resilient position in the event of a safety related or significant incident investigation.

To review the current arrangements and make recommendation for a refresher programme for the boat crews to enable them to maintain the current capability.

The current refresher programme for the staff is based on a tri-annual revalidation process. Although financial data has not been provided, the review team has identified potential opportunities to reduce cost and skill fade currently being experienced. It is suggested that all areas of activity are broken down into competencies that can be assessed on an annual, bi or tri-annual basis. Annual exercises and training events utilising Lee Valley White Water Centre and the tidal River Thames, as examples, would require a format that evaluates the varying risk levels of these competencies. For example, defensive and aggressive swimming, throw line drills and boat handling skills could be practiced and assessed annually, leaving other areas such as night operations, towing and search to be spread out over a tri-annual cycle. This would lead to a three yearly programme to maintain competence and qualifications for staff across all competencies. The review team suggests that Levels 2 through to Level 5 should be assessed at the same time where possible. This would support development of a “whole system” approach to water incidents.

To identify savings possible from implementing changes to the existing water rescue training programme. This should include options for various delivery methods.

This area cannot be fully evaluated due to financial information not being available to the review team. However, it is envisaged that the implementation of an in-house training solution as outlined above could reduce costs.

Other areas identified during the review that require consideration.

The review team feels that the following areas should be considered to better prepare the service for current and likely future demands. Statistics provided by the service on water related incidents between 01/04/2010 and 22/12/2014 show the service dealt with 273 water related incidents involving people, animals, flooding and vehicles. The number of rescues from vehicles during this period was 43, which equates to 16% of the total number of incidents. It is recommended that consideration be given to the need for vehicle in water rescue training due to the number of incidents of this type and the associated risks to the staff and public.

The review team also suggests that when the boat crews have been deemed competent to deliver the Level 2 courses, a selected few should progress towards a Level 3 and 4 In Water Instructor/Assessor qualification. This would provide resilience within the service and the ability to develop systems to cope with any fluctuations in demand or staff movement at Crew Manager level through already having staff trained to the required level to take over the training.

It is also recommended that the service further develop liaison with the other services agencies locally to facilitate training and exercises. Due to the small numbers requiring training and revalidation in Level 3 and 4, it would be cost effective to share responsibility and training with surrounding services. This would also provide the additional benefits of more effective multi agency interoperability, supporting the broader principles of the Joint Emergency Services Interoperability Programme (JESIP).

Summary

It is recommended that:

- All water rescue training be carried out in-house with an external provider used to verify and accredit
- A venue in the north of the service area is identified to carry out Level 2 training in addition to the current venue in the south
- Level 3 & 4 training should move away from a tri-annual updates and develop an annual competency based training and assessment programme encompassing all other levels of water rescue
- A local training approach should be adopted to utilise training venues such as Lee Valley, Nene White Water Centre and the Tidal River Thames.
- Current specialist boat crews should be trained to carry out and deliver all Level 2 training
- The identified Supervisory Officers should be supported to progress to In Water Rescue Instructors/ Assessors at Levels 3 and 4 and Royal Yachting Association (RYA) Powerboat Level 2 Instructor
- Suitable specialist boat crew members should be identified to start working towards the In Water Rescue Instructor qualification at Levels 3 & 4. This would provide resilience, development opportunities and succession planning within the water rescue training team
- All Level 5 trained staff should maintain a log of all water rescue training and incidents attended. They should also attend workshops to keep them up to date with training and best practice

Appendix

Author information: Martin Blaker-Rowe

Prior to joining Babcock Training Ltd as the Senior Trainer for Water Rescue and Marine, Martin spent 15 years as a full time operational member of the Royal National Lifeboat Institution (RNLI). During this time, he was the full time helm operating a 47-knot lifeboat on the Tidal River Thames, responding to a variety of water related incidents.

The last three years of employment with the RNLI saw him develop and implement a complete in-house water rescue/flood rescue training package. This system is now being implemented in many other services within the UK and is still the current best practice within many non-government organisations.

He has delivered training across the UK and Bangladesh as well as maintaining his operational commitment. In 2013, he was awarded a Bronze medal for gallantry, a Pride of Britain award and a Chief Fire Officers Association award for flood related rescues during the 2012/2013 floods. He was operationally deployed to the Philippines in 2013 to assist the United Nations and Save the Children with regards their response to the water related areas following Typhoon Hiyan.

In January 2015, he joined Babcock Training Ltd as part of the team that is contracted to develop and provide operational training for the London Fire Brigade. His role includes the running of all of the water rescue and marine training which leads to the qualification of over 520 operational fire fighters per year in water and swift water rescue.

He continues to be an operational team leader for the RNLI's National and International flood rescue teams. He is the operational subject matter expert for water rescue for the United Nations and the European Union response mechanism. Additionally, he is the deputy water rescue lead for the Association of Lowland Search and Rescue.

Below are some of his qualifications:

- Rescue 3 SRT Instructor
- Welsh Fire Service SRT Instructor
- RNLI SRT Instructor and Instructor Assessor
- RNLI FWRBO Instructor and Instructor Assessor
- RYA Advanced Powerboat Instructor



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Eve Holding

Market Director – Emergency Services Training
Babcock International Group
Babcock Technical Academy
Unit B, Maidstone Road
Kingston, Milton Keynes
MK10 0BD

44 (0) 7703 469938
eve.holding@babcockinternational.com
www.babcockinternational.com