

Purpose: Approval

Date: 17 July 2019

Title: **FRONTLINE CAPABILITY REVIEW**

Report of Chief Fire Officer



**HAMPSHIRE
FIRE AND
RESCUE
AUTHORITY**

SUMMARY

1. In February 2016, the Hampshire Fire and Rescue Authority (HFRA) agreed significant changes to our Frontline Capability, making a commitment to improve the way we respond to incidents by matching resources to risk.
2. Extensive vehicle pilots and subsequent evaluations have provided us with an improved understanding of two new vehicles, the Intermediate and First Response capabilities, which have led us to identify improvements to the original disposition.
3. A proposed new disposition will improve the Fire and Rescue capability at more of our stations compared to our original proposals; whilst maintaining the flexibility to respond with different crewing levels.
4. The proposed change in vehicle types and their disposition maintains a planned reduction in capital expenditure over the longer term whilst enhancing the vehicle and equipment response capability. It does however have a short-term impact on the existing capital programme and this report seeks an increase in the vehicle replacement programme of £0.744m.
5. The purpose of this report is for Hampshire Fire and Rescue Authority to consider a new disposition of appliances proposal.

BACKGROUND

6. In 2016, the Hampshire Fire and Rescue Service (HFRS) Risk Review recommendations following public consultation, was agreed by Hampshire Fire and Rescue Authority (HFRA). This included significant changes to HFRS Frontline Capability, making a commitment to improve the way we respond to incidents by matching resources to risk.
7. The proposed "Frontline Capability" consisted of three vehicles, Enhanced, Intermediate and First Response. Each vehicle had a different range of equipment and therefore different capabilities to deal with the wide range of incidents HFRS attend.
8. The 2016 disposition of vehicles was designed around the planned capability expected from these new vehicles. Assumptions regarding their ability to resolve incidents within their local area were made.
9. The "First Response" (FRC) and "Intermediate" capability (IC) vehicles were a new concept to our fleet. As such a full and in-depth evaluation was planned.

DESIGN

10. A critical component to the design of the First Response and Intermediate vehicles was co-design. We committed to develop, trial and evaluate all our work - with these new vehicles, in partnership with our teams, as those who would ultimately use the vehicles.
11. An important assumption that we made, was that all frontline firefighting vehicles would be able to allow compartment firefighting.
12. The vehicles were designed to maximise the use of new technology and UHPL (ultra-high-pressure lance) capability to improve safety, effectiveness and efficiency. And for HFRS to adopt the SAVE (Scan Attack Ventilate Enter) firefighting tactic to tackling compartment fires.
13. Modelling assumptions during Risk Review suggested faster response times through the introduction of smaller vehicles.
14. The introduction of these new vehicles was designed to allow more efficient and flexible crewing models to be used. It was anticipated that being able to respond with fewer than four riders would enhance response times as smaller crews would make the appliances available more often. To enable this, thorough risk assessments and safe schemes of working were developed.

EVALUATION METHODOLOGY

15. The evaluation methodology was designed to engage as many stakeholders as possible, maximising opportunities for them to contribute to the evaluation and development of the future design of the FRC and IC.
16. The full evaluation plan included more than 70 questions, carefully designed to learn as much as possible.
17. A full report for each new vehicle was produced and reported to the Service Delivery Redesign programme board, which provided oversight of the implementation of the Risk Review.

FIRST RESPONSE CAPABILITY VEHICLE

18. Three First Response Capability (FRC) vehicles have been designed and tested within HFRS. All configurations have yet to successfully deliver against the expected capability HFRS requires.
19. The pilot phase of these vehicles found significant limitations with the range and size of equipment that could be carried. This weight restriction did not enable the vehicles to deliver against the requirements, in particular of compartment firefighting.
20. The First Response vehicle designed has not been able to provide suitable equipment to enter a compartment for fire-fighting and/or search and rescue. *“the lack of hose, no high-pressure hose-reel and no main pump for compartment fire-fighting this would represent a reduced fire-fighting capability”*.

21. We experienced significant reliability issues with the vehicles, to both their electrical and mechanical systems. This again we believe is due to the weight, when the equipment required was included.
22. This evaluation of the First Response vehicle has also demonstrated that it would be unable to resolve some of the incidents for which had been planned.
23. The evaluation did not confirm the assumption made within Risk Review that smaller vehicles would be faster and improve response times.

INTERMEDIATE CAPABILITY VEHICLE

24. The Intermediate vehicle has, with considerable engagement and recommendations from end users, delivered against expectations for an Intermediate Capability vehicle.
25. The Key benefits of the IC have been:
 - A lighter vehicle,
 - A narrower chassis leading to increased manoeuvrability especially in cramped inner city and small rural roads;
 - Improved lighting has improved safer response to incidents;
 - Equipped to a very high standard and is comparable to the Enhanced Capability (EC);
 - Able to safely respond with less than 4 riders to resolve emergency incidents.
26. The evaluation did not confirm the assumption made within Risk Review that smaller vehicles would be faster and improve response times. However, it was able to demonstrate how smaller crews were able to respond and this has a positive impact on response times with greater appliance availability, enabling a more local and therefore faster response to some incidents.
27. The vehicle is popular with our teams. The IC vehicle has been integrated into the HFRS vehicle replacement programme. 2019/20 will see the delivery of 10 of these vehicles to enhance our fleet and develop the benefits to our stations.

FLEET DISPOSITION

28. The technical evaluation and comprehensive engagement with key stakeholders has identified that the First Response Capability should be removed from the HFRS disposition of appliances.
29. In 2016, the HFRS disposition of appliances included three types of vehicle – First, Intermediate and Enhanced – see **Appendix A** for details. The evaluation of the pilot vehicles and the ambition to match resources to risk leads to a reconsideration of this disposition plan.

OPTIONS

30. There are two options that are considered and presented in this paper.
 - a) The three-vehicle approach and the 2016 Risk Review disposition of appliances plan is retained. This will require further evaluated pilots to seek a suitable First Response Capability vehicle.
 - b) A revised two vehicle approach is taken, and a new disposition of appliances plan is approved. This will match resources to risk with the knowledge that HFRS has in 2019.

SUPPORTING OUR SERVICE PLAN AND PRIORITIES

31. The realignment of the vehicle disposition supports our service plan in the following ways:
 - a) “Responding to Incidents” Service priority to continue to improve the way we respond to and support incidents.
 - b) “Creating Safer Communities” Recognising the benefit that responding with less than four can improve the first attendance time ensuring people are safer at home, work, travelling and socialising.
 - c) “Stronger” Improved availability of latest technology across a wider proportion of the fleet will see more crews able to use the latest equipment and techniques.
32. The proposal also supports the National Framework Document objectives of:
 - a) Identify and assess the full range of foreseeable fire and rescue related risks their areas face
 - b) Be accountable to communities for the service they provide.
 - c) Increase the efficiency and effectiveness of the service they provide.
33. The approach and recommendations have been led and contributed by our staff at all stages. This contributes towards our approach to Service change, where we seek all views and listen to our staff.

RESOURCE IMPLICATIONS

34. The total number of vehicles would remain the same, however, the make-up of these would change.
35. The proposed fleet was:
 - a) 26 EC's, 21 IC's and 30 FRC'sthis proposal would change it to:
 - b) 24 EC's, 49 IC's.

- c) In addition, 4 Small Fires Vehicles (SFV) which are specialist appliances will be retained in the city areas to continue to successfully deal with small fires.
33. These changes will continue to reduce the total long term spend on the vehicle replacement programme, which was previously planned on a replacement of 76 Enhanced vehicles and 3 Small Fire Vehicles, prior to the changes originally planned as part of the SDR programme.
34. The change in vehicle strategy and the need for the necessary vehicle evaluations to conclude does however have a short-term impact on the capital programme. To achieve the proposed changes an increase to the capital programme for vehicles of £0.744m is forecast over the next three years. The impact of the increased amount can be reduced from underspends on previous vehicle purchases to amend the actual increase to £0.462m, which it is recommended is approved by the Authority to be funded from the Capital Payments Reserve.

Vehicle Description	2019/20		2020/21		2021/22	
	No.	Cost £'000s	No.	Cost £'000s	No.	Cost £'000s
Aerial Appliance	0	0	0	0	0	0
Water/Foam Carrier	0	0	0	0	1	323
Enhanced Capability Appliance	2	722	2	744	0	0
Intermediate Capability Appliance	10	3322	15	5133	14	4934
First Response Capability Appliance	0	0	0	0	0	0
Small Fires Vehicle	1	170	1	175	0	0
Incident Command Vehicle	1	500	0	0	0	0
Safe and Well (Key Stage 2 Education Vehicle)	0	0	0	0	0	0
Canine support vehicle	0	0	0	0	0	0
Light off-road vehicle	3	210	1	72	0	0
Heavy off-road vehicle	0	0	0	0	0	0
Command Support Van	0	0	0		0	0
Command Support Unit	1	128	0	0	0	0
Marine Support Unit	0	0	0	0	0	0
Fire Investigation Unit	0	0	0	0	0	0
Mobile Community Contact Point	0	0	0	0	1	70
General Purpose Van	3	60	16	336	11	238
Pick-Up	0	0	0	0	1	28
Pick-Up (4x4)	0	0	0	0	0	0
Crew car/van	20	320	9	149	1	17
Personnel Carrier	0	0	0	0	0	0
Provided vehicles for FDS	1	40	1	32	30	990
A/T Fork lift	1	60	0	0	0	0
Totals	43	5,532	45	6,641	59	6,600

36. The Intermediate Capability vehicles however have a longer programmed life cycle than the First Response Capability vehicle and therefore the overall appliance life cycle financial resource impact is balanced, when considering more of the more expensive, larger vehicle.

37. The proposed change to vehicle types represents a significant improvement to response capability and organisational response resilience for the same financial resource outlay when considered as a whole life cycle.

Fouteen Year Life-Cycle	Calculation 1 - Pre SDR			Calculation 2 - SDR Proposal			Calculation 3 - New Proposal		
	Quantity	Cost Each	Cost Total	Quantity	Cost Each	Cost Total	Quantity	Cost Each	Cost Total
2019/20 Pricing Forecast		£'000s	£'000s		£'000s	£'000s		£'000s	£'000s
Enhanced Capability Appliance	76	386	29336	26	386	10036	24	386	9264
Intermediate Capability Appliance	0	0	0	21	347	7287	49	347	17003
First Response Capability Appliance	0	0	0	30	288	8640	0	0	0
Small Fires Vehicle	3	238	714	0	0	0	4	238	952
Totals			30050			25963			26267

38. The recommended change does not attract any changes to the previously agreed risk review firefighter establishment.

ENVIRONMENTAL AND SUSTAINABILITY IMPACT ASSESSMENT

39. An Impact assessment has been completed for the Intermediate and First Response Capabilities and has not identified any significant impacts. The additional cost of Intermediate Capability versus First Response Capability is balanced through the vehicle longevity. and has not identified any significant impacts. The additional cost of Intermediate Capability versus First Response Capability is balanced through the vehicle longevity.

LEGAL IMPLICATIONS

40. There are no legal implications identified within this paper.

EQUALITY IMPACT ASSESSMENT

41. An impact assessment has been made and the proposals in this report are considered compatible with the provisions of the equality and human rights legislation. There are no impacts identified.

RISK ANALYSIS

42. Option A, 2016 Risk Review disposition had a large proportion of FRC's, which cannot provide the capability first envisaged. This will have a negative impact on our county wide resilience. This could result in not providing a suitable capability for some incidents i.e. high rise, ship fires or major incidents such as Ocado.
43. Option A, a single vehicle on-call station provided with a FRC has limited compartment fire-fighting capability when compared with an IC or EC.
44. Option B, it could be perceived by crews that by changing the vehicle type it will demand a change to the crewing level and establishment for the station. This is not the case. The crewing level is linked to the risk profile not the vehicle.

RECOMMENDATION

45. That Hampshire Fire and Rescue Authority approve Option B, A revised two vehicle approach is taken and a new disposition of appliances plan is approved. This will match resources to risk with the knowledge that HFRS has in 2019.
46. That a revised disposition (as detailed in Appendix A) resulting in EC, IC and SFV's be approved by Hampshire Fire and Rescue Authority.
 - a. *Change from an FRC to an IC for RDS single vehicle stations*
 - b. *Change from an FRC to an IC for RDS two appliance stations*
 - c. *Change from an FRC to an IC for Andover, Winchester, Gosport, Havant and Fareham.*
 - d. *Change from an FRC to an IC at Hightown & Rushmoor*
 - e. *Change from an EC to an IC at SHQ and Basingstoke to better match resource to risk.*
 - f. *Swap the EC allocated to Lyndhurst with the IC allocated to New Milton to better match resource to risk.*
 - g. *The addition of a UHPL and MPN enabled SFV at Redbridge*
47. Subject to the approval of the revised disposition of appliances that an additional £0.462m is added to the capital programme over the next three years, to be funded from the Capital Payments Reserve.

APPENDICES ATTACHED

48. Appendix A Risk Review Disposition Map and Recommended Disposition Map.

BACKGROUND PAPERS

49. These recommendations are supported through the following reports;

[Frontline Capability technical paper v2.0](#)

[IC & FRC Pilot Plan](#)

[IC & FRC Pilot Evaluation report](#)

[7-Person Concept Report](#)

[Equality Impact Assessment](#)

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