



Equipment Strategy (2018 - 2021)

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ABOUT THIS DOCUMENT

This document forms part of the overarching Asset Management Strategy which, within the Operational Logistics function, outlines key strategies for Fleet & Equipment. The document illustrates how HWFRS will procure, maintain and replace operational equipment items in order to meet current and future operational needs.

HWFRS aims to maintain a high standard of operational equipment through continual improvement and evaluation. The Equipment Strategy has been produced as a review of the equipment provision (undertaken at the conclusion of the previous Equipment Strategy 2008 - 2015).

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Equipment Strategy 2018 - 2021

1. Introduction

The purpose of this equipment strategy is to provide long term structured planning to equipment maintenance and procurement. This will ensure that the Service (HWFRS) continues to provide and maintain the right tools and equipment to ensure our staff can do their jobs effectively, in accordance with the Core Strategy.

1.1 Control of the Equipment Strategy

The equipment strategy will be reviewed annually in conjunction with, and supported by the key stakeholders, primarily Service Delivery (user) representatives. This will be linked closely to the Fleet Strategy and primarily through the Service Delivery led Fleet and Equipment User Group.

This Strategy will predominantly address equipment needs that are part of a cyclical replacement programme. To a lesser degree there will also be a limited amount of new equipment being introduced annually.

Significant changes to the Strategy would normally only occur due to one of the following criteria being demonstrated:

- An urgent operational need is identified that cannot be met by utilising existing equipment or by adapting existing equipment at economical cost.
- Significant investment to make substantial savings through opportunities such as economy of scale or collaborative procurement.
- A health and safety related issue, interoperability, or equipment fatigue issue suggests an alternative should be sought outside of the Equipment Strategy planning.
- The equipment becomes obsolete or the supplier cannot for any reason continue to support the product.
- New technology or improvements in technology that offer long term cost savings or an increased functionality to the user are identified.
- Where legislation, guidance or notable practice dictates a new or altered approach or deems a change in process and operating practices is required.
- Where there may be wider and/or more specific operational considerations including those of partner organisations and collaborative initiatives, such as alignment of equipment to underpin consolidation or development of operational practices and services being delivered.

In support of these criteria the following checklist should also be considered:

1. If current equipment exists, why does the current equipment provision not meet the requirement when measured against the specification of user need?
2. Is any proposed solution the most economically advantageous option?
3. Has collaboration been considered (see Sec 2.3 below)?

1.2 Looking to the Future

As operational equipment is one of the key categories of physical assets for the Service, the way which the Fire and Rescue Service (FRS) fulfils its duties in accordance with the Fire and Rescue Services Act 2004 will influence the type of equipment that is needed. Additionally, how the Service intends to undertake its duties can be established from the Service's Community Risk Management Plan (CRMP) which will also influence the user requirements and type of equipment that is provided.

In relation to the Home Office Fire Reform agenda, key considerations in relation to future equipment procurement are:

- Standardisation of specification and equipment types
- Aggregation of equipment procurement with others to achieve best value
- Effective contract management

1.3 Assessing Current Performance of our Equipment (Specifications)

This Strategy was developed from a thorough understanding of the performance of the existing legacy equipment provision including its strengths, weaknesses and overall suitability for the defined role by the users. This may in many cases mean that much of the existing equipment does not necessarily have a current and reviewed specification. However before a significant replacement exercise is undertaken, full specification should be developed as this will be the foundation upon which the future provision will be based on and measured against.

In order to examine an element of the provision of equipment, a user specification should normally be drafted. This details the explicit "Needs" and "Wants" of the user in order to identify the essential and desirable requirements of any type of equipment. This will lead to the development of the **User Specification**.

This initial User Specification can then be developed into a **Full Specification** document which will include not only the user's requirements but also other important information such as (not exhaustive): whole life costs, environmental impact, financial data, service and maintenance requirements, procurement routes, collaborative opportunities and market research to inform the user of what is available and current. Only when a full specification has been agreed and signed off by an SMB lead can the procurement process begin.

The Full Specification may also need to consider a number of other wider issues such as:

- Costs and independencies such as ICT
- Wider procurement considerations and adherence to ethical and sustainable procurement routes
- Ethical and sustainable disposal of assets
- Whole life costs including disposal
- Equality impact assessment

1.4 Equipment Categorisation

To assist with the evaluation and forward planning of the procurement, all equipment should be categorised into one of the following categories:-

1. Respiratory Protective Equipment (RPE)
2. Personal Protective Equipment (PPE)
3. Road Traffic Collision (RTC) and associated rescue equipment
4. Workwear clothing
5. Communications equipment
6. Ladders
7. Working at Height (WAH) and Rope equipment
8. Lighting
9. Water Rescue equipment (note boats and trailers are linked into the fleet Strategy)
10. Trauma
11. Hoses and branches (inc. foam equipment)
12. Positive Pressure Ventilation (PPV)
13. Portable pumping equipment
14. Urban Search and Rescue (USAR) and National Resilience (NR) equipment
15. Electronic aids (Thermal Imaging, Gas Detectors, Cameras etc)
16. Miscellaneous (Small gear, tools, welfare, ICS, salvage, breaking in, dams, Command Support ancillary equipment))
17. Environmental
18. Fire Investigation
19. Hazardous Materials, including Decontamination
20. Animal Rescue
21. Lifting, Winching etc
22. Young Firefighters Association (YFA)
23. Fitness equipment
24. Training equipment
25. ICT related equipment (hardware)
26. ICT related software and contracts
27. Fleet related equipment (e.g. demountable blue lights, vehicle accessories)

These categories are now aligned to review and replacement dates (Appendix 1)

Some items of equipment are governed by factors such as legal compliance and manufacturer's guidance with end of life dates or component expiry dates. Where there are no such constraints, indicative review dates will be identified in this strategy and form part of the annual work planning processes for relevant departments. These key dates inform how we plan for the mid-term evaluation and end of life replacement of our equipment to ensure that Service equipment meets user requirements.

2. Evaluation of Equipment

Whilst working within budgetary and financial parameters, it is not only important that the Service achieves best value for money (based on effectiveness, efficiency and sustainability), but also provides equipment that is of a satisfactory quality and is not compromised in its effectiveness as a result of cost. Conversely it is important to seek standardisation with others, where possible, and to ensure that equipment is not "over-specified" and over-priced for the function it is trying to fulfil.

2.1 Value for Money

Value for money is achieved firstly by ensuring a comprehensive specification at the start of any process, utilising the most competitive procurement routes and then ensuring the supplier has met Service expectations throughout the lifespan of the contract.

Major equipment procurements are often collaborative and/or governed by formal contracts which can include fully managed services being provided alongside the item of equipment. These can be entered into alone or aligned to consortium frameworks (collective purchase agreements), that may offer the Service the advantage of better price, terms and conditions and aggregated bulk purchase efficiencies.

The cost of the procurement process and capacity costs, alongside the contractual full life costs are key areas of exploration when examining value for money. Whereas managed services are easily defined by cost, the ability to manage maintenance in-house is often harder to identify, as the costs are predominantly capacity defined rather than financial.

2.2 Equipment Lifespans and Review Periods

With over 23,000 items currently tracked and maintained in the Service, the procurement of new and replacement equipment requires careful planning.

As can be seen below, the 6 categories major equipment items attract medium term reviews (MTR) and replacement dates that allow the Service to continually improve and assure that the item is delivering what is required.

Planning for the lifespan of equipment is not necessarily a process that can be applied evenly across all equipment types. Some equipment may have fixed manufacturer determined or safety led lifespans which force the disposal at a set date of equipment that may appear to be in perfectly serviceable order, whilst other equipment, whilst well used and worn, may be perfectly suitable to stay in service and will continue to perform well for many years. This document does establish lifespans for equipment (see Appendix 1) which in some cases are fixed, however, in many cases may be aspirational only and might need to be flexible and regularly revised, based on a number of considerations at any given time.

Whilst planning is in place for end of life replacement, the Service is equally attentive to requests for additional or replacement equipment throughout the lifespan of the item, as detailed above in Section 1.1.

Determination of Lifespans

Equipment replacement programmes vary across the UK FRSs, and there is no appropriate industry benchmark to measure average lifespans for most pieces of equipment.

The increasing age of a piece of equipment can have the potential to present increased maintenance and repair costs, however, this must be offset against the replacement costs and procurement processes needed to replace it. In many cases low operational usage, above average maintenance cycles alongside the quality of the product that is procured at the outset will determine the lifespan of many pieces of equipment.

Conversely, consideration should also be given to whether the lifespan of a piece of equipment will limit the ability to respond to technological advances. It is important to regularly assess the current lifespans of the equipment in use to determine whether it is beneficial to reduce or extend these lifespans further.

Many issues need to be taken into account in these assessments and should not be limited to age alone, in most cases. The replacement of a piece of equipment may be determined (increased or decreased) based upon a number of considerations (see section 1.1. above). Much of the Service's equipment assets are subject to relatively low usage, therefore equipment may be rotated and swapped to balance this usage out across the lifespan of the equipment.

Where a piece of equipment consistently demonstrates low usage, it should be assessed as to whether the equipment can be removed or other options for the provision can be explored.

Equipment Reviews

Equipment reviews should consider:

1. An initial assessment of the user core needs against the task and likely usage without examining the market for new equipment and with only a minor consideration of the capabilities of the current equipment in use to assist this process.
2. An assessment of the suitability of the current piece of equipment (if applicable) should be undertaken to determine whether this item is adequately meeting user requirements.
3. Whether the current item is still required or whether there is another way of addressing the user needs (i.e. other equipment in the Service, different operating models, collaboration with others)?
4. An initial superficial review of technology or delivery options available on the market. This should not lead to market testing of items at this stage or include items in development that are not available for purchase. It may also be prudent to engage with the NFCC R&D hub or regional partners who work with R&D to explore options at this stage and avoid duplication of effort. It is important to comply with procurement regulations where at this stage no preferential supplier or market interest is identified or engaged with which might lead to accusations of improper practice during the procurement phase.
5. The potential for collaborative procurements with other partner agencies should be explored.

2.3 Collaboration

It is important that collaboration is considered at each stage of the equipment management cycle, especially at the outset (see section 1.1. above). Collaboration at each stage may be considered in a different context and can be effective in isolation or as a whole:

- Collaboration between users and when establishing the user specification and needs.
- Collaboration between partners at the procurement stage.
- Collaboration between partners for the maintenance, support and contract management of a piece of equipment.

Collaboration may take many forms, for example; Fire-Fire, Fire-Police, Fire-Local Authority or Fire-EA, however where competing objectives between partners hinders equipment management then strategic direction should be sought.

2.4 Disposal of Equipment

The disposal strategy should consider the following issues:

- a) Redeemable residual value of the item to the Authority
- b) Security - To ensure equipment (PPE) cannot be acquired by purchasers for purposes that are detrimental to the national interests, e.g. crime and terrorism.
- c) Young Firefighters Association, Training, or similar initiatives.
- d) Assisting other UK Fire Services and partners.
- e) Assisting developing countries and charities (low or zero-value items only without appropriate approval). Any decision to gift higher value items will need appropriate approval, usually SMB or FRA.
- f) Maintain an adequate audit trail and assurance of appropriate disposal.

Appendix 1 Key Equipment lifespans' and profiling (5 years)

Category	Lifespan (Est.)	Equipment	Review Date	Replace date	2018/19	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	5yrs + key date
RPE	10 yrs	BA Sets complete	2018	2019	£50,000 1 st Stage Reducer replacement	Part replacement defer	defer	Replace All Total £900k	nil	nil	Review 2030
	10 yrs	BA Comms	2018	2019	N/A	Replace £50,000	nil	nil	nil	nil	Review 2028
	15 yrs	Cylinders	2023	2024	nil	nil	nil	£400k	nil	nil	Review 2036
	10 yrs	Respirators	2026	2027	nil	nil	nil	Subject to BA programme	nil	nil	Review 2026
PPE	7.5yrs	Firekit	2017	2018	£401,268 664 FFs (2017/18 budget £378k)	£415,713 3.6%	£430,159 3.6%	£444,605 3.6%	£459,051 3.6%	Review	Replace 2025
	7-10 yrs	Water Rescue PPE	2017	2018	70 = £32146.80	30x £13777.20	25x £11481	20x £9184	12x £5510.88	12x £5510.88	rolling
RTC	10yrs	Cutting	2017	2018	Complete	nil	nil	nil	Review for	Tech	Replace

		Equipment			£800k				Tech Refresh	refresh 2023/24	2028
	10yrs	Airbags	2017	2018	£54k ** Based on current requirement	£54k ** Based on current requirement	nil	nil	nil	nil	Replace 2028
	10yrs	Ultra Heavy	2021	2023	B/Fwd £80k	nil	nil	nil	nil	nil	Replace 2028
	3-5	Rechargeable Tool Batteries (all) Dewalt & New RTC Cutting Gear Batteries	N/A	N/A	Nil	£2000	£2000	£2000	£2000	£5000	rolling
Comms	10yrs	Handheld Radios	2017 (2027)	2018 (2028)	nil (2017/18 budget £140k)	Under 5 Year warranty	Under 5 Year warranty	Under 5 Year warranty	Under 5 Year warranty	£11,000	Review 2027
	10yrs	Intrinsically Safe handheld radios	2018	2018	Replace £50k (under review)	Under 5 Year warranty	Under 5 Year warranty	Under 5 Year warranty	Under 5 Year warranty	£4000	Review 2027

Workwear Clothing	3yr (Nat Framework)	All	2017	2018/19	Core budget £58,000	Core budget £58,000	Review Core budget £58,000	Core budget	Core budget	Core budget	N/A
Ladders	18	135	annual	18 year max	£15,200x4	£15,200x4	£15,200x4	£22,800x6	nil	nil	
	18	9m	annual	18 year max	£13,800x6	£4,600x2	£9,200x4	£16,100x7	£2,296x1	nil	
	18	triple	annual	18 year max	£6,000x11	£6,000x11	nil	£8,800x16	nil	nil	
	18	Roof	annual	18 year max	£3,220x5	nil	nil	£9,000x14	nil	nil	
Working at Height	10	W@H packs	2023	2025	nil	nil	nil	nil	nil	nil	Review 2034
	10	Lines (General)	2018	2019	£1000 x10	£1000 x10	£1000 x10	£1000 x10	£1000 x10	£1000 x10	Review
		Age expired items	2023	2025	£800 x14	£800 x14	£800 x14	£800 x14	£800 x14	£800 x14	
Lighting	5	All	2017	2018	Complete £60k	nil	nil	nil	Review	Replace	
	7	BA torches	2017	2018	As part of the lighting project					Review	

Water Rescue	10	Equipment	2020	2021							
Trauma	7-8	Defibrillators	2017	2018	Warranty	Nil	Nil	Nil	Nil		
	N/A	Defib Batteries. Packs etc	2021	2022	Nil	£130 x 10 £1300	£130 x 10 £1300	£130 x 10 £1300	£130 x 10 £1300	£130 x 10 £1300 Complete 5yr replacement = £6500	£130 x10
Hose and Branches	10	Layflat	2018	As Required							rolling
	10	HR tubing 19/22mm	2017	2018	£12,000 x60 10 New Pumps will have 22mm HR (6 lengths on each)	£12,000 x60	£12,000 x60	£12,000 x60	£12,000 x60	£6,000 x30	£6,000 x30 rolling
		HR branches	As Required								rolling
Positive Pressure Ventilation	15	PPV fans	2025	As Required							
Portable Pumps	N/A	LPPs	2019	As Required							

Urban Search & Rescue	10	PPE	2018	2019	TBC						
Electronic Aids	5-7	TICs	2017	2018	£10k x4	£43k x17	£43k x17	£37.5k x15	nil	£10k 4	
	5-10	Gas Detectors	2019	2020	Complete £55,000 x 75	nil	nil	nil	nil	nil	
Misc Equipment	N/A	All	As Req	As Required							
		Hydrant equipment									
Environmental (With EA partners)	N/A	All	As Req	As Required	Cost Recovery						
Fire Investigation	10	All	2019	2020	£2000	£2000	£2000	£2000	£2000	£2000	PPE Review 2024
Hazmats including Decon	10	All	2020	2021	£600	£600	Review				GTS Review 2024
	10	Officers Equipment	2017	2017	£4000	£4000	£4000	£4000	£4000	£4000	Rolling
Animal Rescue	10	Equipment	2021	2023	£1000	£1000	£1000	£1000	£1000	£1000	Rolling

	10	PPE (new)	2017	2018	£3000	£600	£600	£600	£600	£600	Rolling
Lifting and Winching	20	All	2018	2019	£20k	£5k	£5k	£5k	£5k	£5k	
YFA	N/A	All	As Req	As Required							
Fitness Equipment	N/A	All	As Req	As Required	£5000	£5000	£5000	£5000	£5000	£5000	Rolling
Training & Development Centre	2	Dummies	As Req	As Required	£1500	£1500	£1500	£1500	£1500	£1500	Rolling