

Response Cars

Purpose of report

1. To seek agreement from SMB on the purchase of 8 new vehicles as response cars.
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Recommendations

It is recommended that SMB approves:

The procurement by direct order from the Crown Commercial Service Framework of 8 Landrover Discovery Sport SE Tech cars as replacement response cars.

Introduction

2. Since 2010, HWFRS has purchased Landrover Freelander vehicles as response cars and has replaced these every 4 years. The decision to provide this type of vehicle has given the Service a significantly enhanced capability for business continuity during adverse weather conditions and has provided drivers with a safe, reliable and appropriate vehicle for responding in all weathers and access conditions (on and off road).

Background

3. In 2014, The Officer Car User Group carried out a review of the specification (Appendix A) for a response vehicle and along with the Service requirements for business continuity; this formed the basis for a review of vehicle options. This review concluded that the Landrover Freelander was the most appropriate, best value vehicle to meet the agreed specification for a response car.
4. The 2014 review examined a number of vehicle options and compared these to the agreed specification. In addition, it considered the provision and sourcing of appropriate theoretical and practical training for drivers operating in limited traction conditions. Following this, SMB agreed a total provision of 27 response vehicles (24 for FDS officers and 3 spare/pool vehicles) and agreed the procurement of 16 new Landrover Freelanders (14 reg).
5. In 2015, Landrover ceased production of the Freelander and replaced it with a new model – the Landrover Discovery Sport.
6. In 2011, the Service purchased 11 Landrover Freelanders (11 and 61 registration) that have now reached an age and mileage where they require replacement as soon as possible. As the Service owns (rather than leases) these vehicles and due to the Freelander no longer being available a decision was taken to delay the procurement of replacements to ensure that an assessment of other options could be carried out.

Owning the 11 and 61 reg vehicles provides the Service with the opportunity to select the vehicles with the lowest mileage that are in the best condition and to use these as the pool/spare vehicles thus reducing the need for new vehicles from 11 to 8.

2015 Options Assessment

7. HWFRS has traditionally procured response vehicles via the Crown Commercial Services frameworks. These frameworks are agreements with vehicle providers that set out terms and conditions under which specific purchases can be made and provide a cost effective means of purchasing or leasing a variety of vehicles.
8. HWFRS has used the 'Direct Order' method of procurement whereby customers can make a direct award when they are able to demonstrate that a particular good or service represents best value without going to further competition. This decision is down to customer discretion so the customer must be satisfied that they are selecting the best value route.
9. Given that the car selected as a response vehicle is no longer in production a review of other options has now been carried out. This review identified vehicles that may meet the agreed specification and then asked the manufacturers to provide details of their vehicles and services against the required specification (Appendix B).
10. The outcome of this review identified 1 vehicle that fully met the specification (Landrover Discovery Sport) and 1 other that didn't fully meet the specification but was sufficiently close enough to warrant further consideration (BMW X3).
11. The 2 vehicles (Landrover and BMW) have been tested by the Service in both on and off road situations and in limited traction conditions. Both vehicles performed well on the road and were deemed suitable for this operating environment. In the off-road and limited traction conditions, the BMW was adequate for the Service needs but had some limitations.
 - Ground clearance. Notably, the ability of the BMW to operate in undulating conditions (rutted tracks) was not as good as the Landrover and it 'grounded' in areas when the Landrover did not. Given that the underbody protection is not as good as the Landrover then whilst the vehicle is adequate for Service use it is possible that it may be damaged more readily than the Landrover if used in off-road conditions.
 - Reactive systems. The BMW system for 4 wheel drive is reactive rather than proactive. This means that the vehicle cannot be set up to anticipate the needs of the surface on which it is being driven unlike the Landrover.
 - Wading depth. The stated wading depth of the BMW is 500mm but it is recommended by the Service Off-road Driving Instructor that it is not driven in water of this depth but is given a 'safety margin' to avoid damage. The Landrover is able to operate in a depth of 600mm.
12. A key area of the assessment was the provision of appropriate and adequate theoretical and practical training for drivers. This training is a requirement under the Provision and Use of Work Equipment Regulations 1998 (PUWER). In identifying what is covered by PUWER, the HSE leaflet 'Providing and Using Work Equipment Safely' states:

'Generally, any equipment which is used by an employee at work is covered, for example..... motor vehicles.'

13. The Service must ensure that the work equipment provided meets the requirements of PUWER and should ensure that it is:
- suitable for use, and for the purpose and conditions in which it is to be used;
 - maintained in a safe condition for use so that people's health and safety is not at risk; and
 - inspected, to ensure that it is and continues to be safe for use.
 - Every employer shall ensure that all persons who use work equipment have received adequate training for purposes of health and safety, including training in the methods which may be adopted when using the work equipment, any risks which such use may entail and precautions to be taken.
14. Currently the Service provides training to drivers for both on and off-road/limited traction use of response vehicles. On road training is provided by Instructors from the Training Centre via the Responding Officer Course (ROC) and off-road, limited traction training is provided by the Service's Off-Road Instructors using the facilities at the Landrover Experience Centre at Eastnor near Malvern. These facilities are costed as follows:
- Hire of site £100 per day
 - Use of vehicles £55 per vehicle
- This means that the Service can train 2 people on a one day course at a cost of £155 + the cost of the instructor (if not already on duty).
15. If HWFRS procured vehicles other than Landrovers, the use of this facility would not be available and therefore the Service would have to find an additional site and would be required to use service vehicles and fuel for the training (with the increased risk of damage). Indicative costs for a 4x4 course held at a facility in Gloucestershire are:
- Basic day course £210 per person

Indicative Costs

16. Quotes have now been received for the Landrover Discovery Sport SE Tech and for the BMW X3 20d SE.
17. The indicative annual cost to the Service has been identified as shown below:

Landrover Discovery Sport 2.0 TD4 Manual SE Tech	
Cost without discount (inc VAT)	£ 33,745.00
Residual value after 4 years (47%)	£ 15,860.15
Cost with discount (inc VAT)	£ 28,309.32
Residual value after 4 years (47%)	£ 15,860.15
Amount to finance	£ 12,449.17
Interest (3.5%)	£ 435.72
Total	£ 12,884.89
Per year (4 years)	£ 3,221.22
Current car costs (14 reg Landrover Freelander)	£ 2,769.95
Additional Cost pa	£ 451.27

BMW X3 20d SE	
Cost without discount (inc VAT)	£ 32,870.00
Residual value after 4 years (42.8%)	£ 14,068.36
Cost with discount (inc VAT)	£ 27,446.45
Residual value after 4 years (42.8%)	£ 14,068.36
Amount to finance	£ 13,378.09
Interest (3.5%)	£ 468.23
Total	£ 13,846.32
Per year (4 years)	£ 3,461.58
Current car costs (14 reg Landrover Freelander)	£ 2,769.95
Additional cost pa	£ 691.63

18. HWFRS has significantly reduced the number of officers and subsequently the number of response vehicles within the fleet from 45 in 2008 (total annual cost of £127,428 pa) to 27 in 2016 (total estimated annual cost of £76,747 pa) giving an estimated total saving of £50,681 pa.

Annual cost of previous vehicles (per vehicle):

HWFRS Previous Officer Cars			
Registration	Make	Model	Annual Cost
14	Landrover	Freelander	£ 2,769.95
61	Landrover	Freelander	£ 2,220.00
11	Landrover	Freelander	£ 2,200.00
10	Landrover	Freelander	£ 2,080.00
08	Skoda	Octavia	£ 3,061.00
56	Skoda	Octavia	£ 3,056.00
05	Ford	Focus	£ 2,671.00

Conclusions

19. The provision of vehicles with off road and limited traction capability has greatly enhanced the Service's ability to respond to incidents in all weathers and on differing terrain but has also improved driver safety and business continuity measures in adverse weather. The cost of providing vehicles to this specification has risen by approximately £450 per vehicle pa.
20. 8 existing response vehicles (Landrover Freelanders) require replacement as soon as possible.
21. The 2015 review of response vehicles was designed to identify the most appropriate, cost effective vehicle to replace the 11 and 61 reg Freelanders. This identified 2 vehicles that either meet or virtually meet the required specification – Landrover Discovery Sport and BMW X3.
22. HWFRS must be able to demonstrate that a particular good or service represents best value without going to further competition. On cost alone, the Landrover Discovery Sport has been shown to demonstrate better value than the BMW X3 and this is further enhanced when the vehicle capability, driver familiarisation and the availability of training and training facilities facilities are also considered.
23. Provision of Landrover Discovery Sport SE Tech will cost the Service approximately £451.27 per vehicle per annum more than the Freelanders procured in 2014 and approximately £1000 per car per annum more than the Freelanders procured in 2011. This equates to an indicative increase of £3610 pa over the 2014 costs or £8000 pa over the 2011 costs. However, the overall cost of the provision of officer response vehicles has been reduced by **£50,681** pa since 2008.

Corporate Considerations

Resource Implications (identify any financial, legal, property or human resources issues)	Financial – there is an indicative increase in annual costs of approximately £5914 pa over existing costs
Strategic Policy Links (identify how proposals link in with current priorities and policy framework and if they do not, identify any potential implications).	This proposal provides our staff with the right tools and equipment for them to do their jobs in keeping with the Service strategy
Risk Management / Health & Safety (identify any risks, the proposed control measures and risk evaluation scores).	The Landrover Discovery Sport is so similar to the Freelander that additional training for drivers will be minimised
Consultation (identify any public or other consultation that has been carried out on this matter)	NA
Equalities (has an Equalities Impact Assessment been completed? If not, why not?)	Not relevant as it does not affect people because of race, disability or gender

Supporting Documents

Appendix A: Officer Car User Specification July 2014

Appendix B: 2015 Response Vehicle Options Review

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**Hereford and Worcester Fire and Rescue Service
Officer Car User Specification July 2014**

1.0 Vehicle Use

HWFRS provides level 2, 3 Command at incidents through Station and Group Commanders. To enable these officers to perform their role, the Service provides them with an appropriate vehicle.

The vehicle is used to transport responding officers to emergency incidents along with PPE and specialist role equipment in a suitable and safe manner, to provide transport for Service Group and Station Commanders in order to carry out their managerial duties and with permission of CFO for private use.

The Service has a requirement to consider officer safety and business continuity so in 2009, a decision was taken to procure vehicles for responding officers that have a 4x4 capability. This was in response to the need for officers to respond in adverse conditions and occasionally over difficult terrain.

This decision has given the Service significant capability and resilience during adverse weather and spate conditions and has proven its worth on a number of occasions. This capability now forms an integral part of the Service Business Continuity plan for adverse weather conditions.

This document aims to give the principles to which vehicles for responding officers will be procured and a specification that the vehicles must meet.

Features are marked Essential (E) or Desirable (D)

The Service requires officer vehicles:

- 1.1 To be able to safely attain and maintain speeds up to 20mph more than posted speed limits. (E)

The vehicle is a response vehicle and as such the driver is able to take advantage of an exemption to the speed limits whilst driving under blue light conditions. HWFRS limits driving of all response vehicles to a maximum of 20mph above the posted limit.

- 1.2 To have a driving position to enable safe operation as a response vehicle. (E)

As a response vehicle it is essential that the driver is in a good position to be able to operate the vehicle and to assess traffic and other hazards

- 1.3 To have 4x4 or limited traction capability. It is essential that the vehicle can operate safely in limited traction conditions. (E)

The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud)

- 1.4 To have the ability to adequately and safely control vehicle descent in adverse conditions (E)

The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud)

- 1.5 To have the ability to drive through standing water up to 500mm. (E)

The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud). This depth has been identified through practical experience as providing the best means of access to the largest number of incidents.

- 1.6 To have the ability to be driven safely across uneven terrain (vehicle must have good ground clearance, entry/departure angles) (E)

The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud)

- 1.7 In addition the Service needs to provide appropriate cost effective, practical and theoretical training for officers required to use responding vehicles in both normal conditions and limited traction conditions. This must therefore be a consideration when procuring replacement vehicles. (D)

This document is not designed to identify specific vehicle types but to identify the specification required to provide an appropriate vehicle for the role performed by service Middle Managers.

It is intended that the Fleet Manager will identify the appropriate vehicle based on the specification in this document but will aim for standardisation across the fleet.

2.0 Vehicle Derivative

- 2.1 Officer cars should be of an 'estate' type to provide sufficient boot space and have 5 seats. (E)

Officers are required to transport PPE and other specialist equipment (FI, Hazmat, ILO etc) to the scene of an incident. In addition, they are required to transport personnel at incidents and during adverse conditions to ensure business continuity

3.0 Engine

- 3.1 The vehicle engine should be based on min 2.0lt diesel with 140bhp (E) and have a manual gear box. (D)

This is to give sufficient response for the vehicle to attain and maintain safely the speeds permitted in responding to incidents. This could be achieved with a manual or automatic gearbox however it is felt that the manual gives better economy and is more cost effective

4.0 Colour

Silver bodywork with dark cloth interior to match existing provision (D)

5.0 Safety

- 5.1 Anti lock brakes (E)
The vehicle is a response vehicle and as such the driver is able to take advantage of an exemption to the speed limits whilst driving under blue light conditions. HWFRS limits driving of all response vehicles to a maximum of 20mph above the posted limit. For the safety of the driver and other road users it is essential that commercially available features are incorporated as control measures to the identified hazards of response driving
- 5.2 Enhanced Stability Programme (E)
The vehicle is a response vehicle and as such the driver is able to take advantage of an exemption to the speed limits whilst driving under blue light conditions. HWFRS limits driving of all response vehicles to a maximum of 20mph above the posted limit. For the safety of the driver and other road users it is essential that commercially available features are incorporated as control measures to the identified hazards of response driving
- 5.3 Traction control (E)
The vehicle is a response vehicle and as such the driver is able to take advantage of an exemption to the speed limits whilst driving under blue light conditions. HWFRS limits driving of all response vehicles to a maximum of 20mph above the posted limit. The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud)
- 5.4 Hill descent control or similar (E)
The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud). The vehicle must be able to descend hills/slopes safely and under control in poor road, weather and ground conditions
- 5.5 Airbags - 2 front, 2 side and 2 curtain minimum (E)
The vehicle is a response vehicle and as such the driver is able to take advantage of an exemption to the speed limits whilst driving under blue light conditions. HWFRS limits driving of all response vehicles to a maximum of 20mph above the posted limit. For the safety of the driver and other road users it is essential that commercially available features are incorporated as control measures to the identified hazards of response driving
- 5.6 Front & Rear fog lamps (E)
The vehicle must be used in poor weather conditions and fog lamps provide a control measure for the identified hazard of fog/mist
- 5.7 Rear barrier guard- boot to passengers (E)
The vehicle is used to transport responding officers to emergency incidents along with PPE and specialist role equipment in a suitable and safe manner. The guard prevents items from the boot entering the passenger compartment in the event of a collision.
- 5.8 Down lights on inside of tailgate (E)
Officers don their PPE at the rear of the vehicle. These lights provide illumination of the area to permit ease of dressing and provide an additional control measure to the identified hazard posed by other road users. These lights are to activate when the tailgate is opened and deactivate when closed.

- 5.9 Heated front screen (E)
The vehicle will be kept outside and must be capable of responding promptly in all weather conditions. The heated front screen is a control measure against the identified hazard of frost.
- 5.10 Heated rear view mirrors (E)
The vehicle will be kept outside and must be capable of responding promptly in all weather conditions. The heated mirrors are a control measure against the identified hazard of frost.
- 5.11 Head lamp washers (D)
The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud). Head lamp washers provide a control measure to the identified hazard of mud/dirt build up on headlamps whilst responding to incidents
- 5.12 Satellite Navigation system (E)
Officer response vehicles are single crewed but can respond to all parts of the Service and on occasions can be deployed nationally. Provision of satellite navigation is a measure that officers can arrive and return safely from incidents without having to stop and refer to maps.
- 5.13 Hands free solution for mobile telephone (E)
Officer response vehicles are single crewed and the officer must be able to respond to cell phone for communications with Fire Control and other officers/crews as a support to the airwave radio provision

6.0 Usability

- 6.1 Rear (E) and front (D) parking sensors
Officer response vehicles are single crewed and as such cannot be provided with a 'banksman'. Parking sensors provide a control measure to the identified hazards of manoeuvring a vehicle in poor conditions and in limited space areas.
- 6.2 Air conditioning (E)
The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in all weather conditions
- 6.3 Front and rear fitted mats (E)
To prevent mud/dirt build up on the carpets and ease vehicle cleaning
- 6.4 Front and rear mud flaps (D)
The vehicle must be able to be used on road and off road to access fires, RTCs and other emergency incidents and must be able to do so in poor weather/ground conditions (snow, ice, flood, mud). Mud flaps are a measure to control the build-up of mud on wheels, brakes and lights
- 6.5 Load space cover (D)
The vehicle is used to transport responding officers to emergency incidents along with PPE and specialist role equipment in a suitable and safe manner. The cover keeps the equipment carried in the boot out of sight and increases the security of the vehicle
- 6.6 Tyre repair/replacement solution (E)
Spare tyre or repair system

6.7 Passenger cabin storage for maps, surcoat, log book (E)

7.0 Operational

7.1 12 volt Power points in boot and front of vehicle (E)

For, camera, mobile telephone etc

7.2 Torch fitment and charger (E)

7.3 Fire ground radio charger (E)

7.4 First aid kit (E)

7.5 Secured Fire extinguisher (E)

8.0 Emergency Response

8.1 Blue light/siren switch panel (E)

Conveniently located for use, preferably with the ability to be moved out of sight

8.2 Roof mounted 360 blue-red light bar, (E)

Secured in place but with the ability to remove (E). The vehicle is used to transport responding officers to emergency incidents along with PPE and specialist role equipment in a suitable and safe manner. Blue lights must be visible from 360 degrees around the vehicle and must be on the roof in order to be seen from distance. Preferable that on arrival rear facing lights can be turned to colour red and from facing lights can be switched off (D).

8.3 Forward facing blue light fitted to windscreen (D)

It has been identified that this is a further control measure to enable other road users to see the vehicle when operating under blue light conditions and in stationary traffic

8.4 Front grille 2 blue lamps (E)

It has been identified that this is a further control measure to enable other road users to see the vehicle when operating under blue light conditions and approaching traffic

8.5 Front wing/bumper blue lights (E)

It has been identified that this is a further control measure to enable other road users to see the vehicle when operating under blue light conditions and emerging from road junctions

8.6 Rear mounted tail gate blue/red lights (E)

It has been identified that this is a further control measure to enable other road users to see the vehicle when stationary at an incident and the officer is donning PPE at the rear of the vehicle. They are located for visibility with tailgate open

8.7 2 flashing red lamps - rear light clusters (E)

It has been identified that this is a further control measure to enable other road users to see the vehicle when proceeding to an incident or stationary at an incident and the officer is donning PPE at the rear of the vehicle. They are located for visibility in the rear light clusters so they are not obscured by the officer donning PPE.

- 8.8 Flashing head lamps (E)
It has been identified that this is a further control measure to enable other road users to see the vehicle when operating under blue light conditions and in stationary traffic, approaching traffic, emerging from junctions and approaching incidents.
- 8.9 Audible siren warning device operation via car horn (E)
This is a control measure to the hazard created by other road users not hearing the approach of an emergency vehicle. It should have different, changeable tones to allow for all traffic conditions and should be controllable from the road horn to allow for operation without removing hands from the steering wheel
- Bull Horn is an acceptable addition to the yelp/wail/siren function
- Siren speaker should be of sufficient output for sirens to be heard (E). Suggest 100 watt output.
- 8.10 Cradle and handsfree kit for airwave radio (E)
Cradle for Airwave SAN J Radio and push to talk button mounted near to steering wheel for airwave radio to allow operation without removing hands from steering wheel
- 8.11 Isolator switch for blue light accessories (D)
Covert switch to allow all emergency features to be isolated. Increases security of vehicle

Keith Chance
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Head of Operations Support

August 2014

