



Fire Ground Radios

Subject: Procurement Report
Date: 25th November 2017
Reference: HWFRS/29

1. Background

Fire-ground radios are an important piece of equipment used at operational incidents which provide vital communication between fire-fighters on the fire-ground, maintain a functional Incident Command System and promote a safe working environment.

Hereford & Worcester Fire & Rescue Service (HWFRS) currently use analogue Entel Standard HT780 and Entel Intrinsic HT981 (ATEX) radios. The original procurement of these radios for all services was between 2006 and 2009 meaning they are overdue a renewal.

Intrinsically Safe (IS) Radios or ATEX: These are radios that are externally certified for use in conjunction with breathing apparatus and in environments where there is a risk of explosion, (potentially caused by the radio's electric circuitry in the circumstances of a fault or failure). HWFRS use the Entel Intrinsic HT970 radio which has ceased manufacture.

Non Intrinsically Safe (Standard) Radios or Non- ATEX: These are general purpose radios that are used at the majority of operational incidents. HWFRS currently use the Entel Standard HT780 radio which has also ceased manufacture.

In the event either of these models needs replacing, Entel currently provide an upgrade at a cost to HWFRS. This has become increasingly costly and resource intensive to maintain and an equipment refresh will address the continued advancement in technology required to future proof our Breathing Apparatus (BA) Provision. Currently HWFRS use intrinsically safe (IS) ATEX approved hand held radios on all occasions where a BA set is worn.

-ATEX is the name commonly given to the two European Directives for controlling explosive atmospheres. Areas classified into zones must be protected from sources of ignition. Equipment and protective systems intended to be used in zoned areas should be selected to meet the requirements of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 1996.

There is currently a National Fire Chiefs Council (NFCC) project underway, headed up by Ian Moore, investigating the need for ATEX and digital radios in the Fire Service.

HWFRS currently operate a total of 350 radios, 307 non at ATEX and 43 ATEX plus 60 spares.

This document aims to provide a clear and transparent rationale for how the appropriate Fire Ground Radios is selected. The Service has assessed the appropriate procurement routes, the appropriate available radios and the relevant costs of those radios.

2. Service Review

Following the review of our current fleet provision and engagement with service delivery via the

Fleet Equipment Steering Group (FESG) the user needs for Fire Ground Radios were identified.

As part of the review the following options were explored

Option 1: Status Quo

Due to the cessation of manufacture, lack of spares and reserve stock for the Entel HT780 radios, this option is not seen as viable. Entel do not currently provide the technology required to future proof our BA provision.

Option 2: Replace Current Entel HT780 Radios with Entel HT783

Given the existing infrastructure of chargers and accessories, this could be deemed an interim option. However, the risks of cross installation of batteries make this option undesirable in terms of risk to operational crews. Within HWFRS the new HT783 model will not fit in the vehicle mounted charging units on any appliance older than 2016 and the batteries are not guaranteed by Entel to work between models. This also does not future proof the radios against the option of Bluetooth technology as currently Entel are not wirelessly compatible with the Draeger BA sets.

Option 3: Replace Current Entel HT780 Radios with Motorola DP range (Non-IS only)

This option would look to replace all the standard radios leaving the ATEX provision until guidance is issued following the NFCC project. The risk associated with this option is the Entel HT981 (ATEX) radio has ceased production so in the event of failure, costs would be incurred replacing them with upgrades from Entel.

Option 4: Replace all current Radios with New Digital Radios (Motorola DP range)

This would mean a like-for-like replacement of both standard and ATEX radios across the Service. The risk with this option is the findings of the NFCC project may negate the need for BA wearers to carry ATEX radios meaning unnecessary expenditure.

It must be noted that regionally other Services have recently procured the Motorola DP series on the basis that they are the only radio on the market which are wirelessly compatible with the Draeger PS 7000 sets which HWFA use.

West Midlands and Warwickshire have recently procured the Motorola series following their evaluation and procurement processes.

Shropshire FRS currently use Interspiro Breathing Apparatus sets.

There are no plans for HWFRS to move away from Draeger BA sets currently.

Based on this the Consortium Framework was identified as the only National Framework to be able to procure Fire Ground Radios; for which two providers have been awarded onto the framework, the Framework is split into two lots.

Radios and Accessories Framework

Lot 1 – Supply of Radios and Accessories

Lot 2 – Service, Maintenance and Repair of Radios and Accessories

Suppliers

1. PMR Products Ltd
2. Radiocom Systems Ltd

The procurement will be done in collaboration with Staffordshire Fire & Rescue Service (Staffs FRS)

and Shropshire Fire & Rescue Service (SFRS).

The specification was agreed by the HWFRS Equipment Project Officer, Service Delivery, Staffs FRS & SFRS) representatives and included the following headings:-

- Technical
- Practical
- General
- Warranty/Maintenance
- Training
- Parts, Spares, Tooling and Testing

See **Appendix 1** Specification

The Authority requires a 2 year contract for the supply and delivery of radios with access to parts & spares and with contract for maintenance services.

HWFRS requires:-

Financial Year	2017/18	2018/19
Non ATEX Radio	310	26
ATEX Radio	0	16

Vehicle	Standard	Atex
Fire Engines x 41	205	0
Water Rescue Vehicle (WRV) x 3	15	0
Ariel Ladder Platform (ALP) x 2	4	0
Water Carriers x 3	6	0
Incident Command Unit (ICU) x2	4	8
Rope Rescue Vehicle x 2	10	0
Incident Support Vehicle	2	4
Urban Search and Rescue (USAR)	6	0
Prime Mover x 3	4	0
Dog Van	2	0
Restricted Access Vehicle (RAV) x 2	8	0
Officers Cars	30	0
Titans	6	0
Environment Protection Unit	4	0
Land Rover- Off Road	12	0

Sub Totals	310	16
Spares	18	4
Totals	336	16

3. Procurement

The framework agreement went live from 9th February 2015 for a period of three years; prices are fixed for the first year of the framework. There is the option of a 1 year extension until 8th February 2019.

Radiocomms were the only supplier to offer ATEX radios and maintenance service of the two suppliers awarded o the framework Lot 2.

From the Radiocomms product list only the Motorola DP series was deemed fully compatible with the Draeger PS 7000 BA sets currently in use in the Service. For the purpose of future proofing the BA provision and interoperability with neighbouring Services, the Motorola DP series was considered as the only viable option. The other two manufactures on the Radiocomms product list have been deemed unsuitable as they do not provide the technology required to future proof our BA provision.

4. Recommended Decision

Radiocomms is directly awarded the contract for the procurement of the Motorola DP4601E radios for Non Intrinsically Safe (Standard) Radios and Motorola DP4401ex ATEX Intrinsically Safe (IS) Radios. See **Appendix 2** for the ATEX Radios Review

Due to the co-ordinating need/timescales and interoperability HWFRS, Shropshire Fire & Rescue Service and Staffordshire Fire & Rescue Service will both purchase these Radios.

They will be purchased individually as Radiocomms through further negotiation; have agreed to honour the price break of over 500 units, even if ordered separately (due to each services internal approval process).

Contract Value for HWFRS £132,114.29 2017/18

- Motorola DP4601E £99,038.80 and Accessories £33,075.49

HWFRS Purchased the 310 Non ATEX Fire Ground Radios on 26th October 2017.

Contract Value for HWFRS £24,400.20 2018/19

- Motorola DP4601E £9,397.70 and Accessories £15,002.50

HWFRS Purchased the 26 Non ATEX Fire Ground Radios on 25th September 2018.

Contract Value for HWFRS £12,288.32 2018/19

- Motorola DP4601EX £8,314.88 and Accessories £3,973.44

HWFRS Purchased the 16 ATEX Fire Ground Radios on 2nd October 2018.

5. Project Efficiencies

Radiocomms also offered the following incentive if HWFRS purchased before the end on October 2017.

A 5 year Service from the start Comprehensive, £27 cash back for every new radio ordered, based on

HWFRS numbers, this equates to a £12k saving for Hereford & Worcester.

HWFRS will benefit from using the Consortium Framework as it is: quick and easy to use, no sign up fee, quantity price breaks available of over 500 units.



The Authority also made non cashable savings due to using the Consortium Framework and not having to run a full tender process, which can involve an extensive and lengthy process with high demands on staff and additional risks of legal challenge from suppliers.

Collaborative purchase with SFRS has also resulted resilience and interoperability through the Joint Emergency Services Interoperability Programme (JESIP) and Command Support Incidents.

A discount of £688.20 was negotiated with Radiocomms on the 16 ATEX radios purchased in October 2018.

6. Full Audit trail (including Specification/Scoring matrix)

<http://sharepoint1/sites/Procurement/Contracts/OperationalEquipment/HWFRS29%20Fire%20Ground%20Radios/Forms/AllItems.aspx?RootFolder=%2Fsites%2FProcurement%2FContracts%2FOperationalEquipment%2FHWFRS29%20Fire%20Ground%20Radios%2FRadiocomms&FolderCTID=0x01200059358F2931DF054CBD69AA47AF7FD1B7&View={FAF3AC1D-675C-4029-9B6E-14BE49152D01}>

Appendix 1- Specification	 Joint Operational Specification Fire-gro
Appendix 1- ATEX Radio Review 2018	 ATEX Proposal 2.docx