

QINETIQ

UK Search and Rescue Helicopters Post-Implementation Review

Capping Report

QINETIQ/19/00408

Prepared March 2019



Executive Summary

The UK Search and Rescue Helicopter (UKSARH) implementation represented a complex transformation of the UK’s aviation-based Search and Rescue (SAR) capability, introducing a number of major changes in the way the service was provided. QinetiQ conducted a comprehensive Post-Implementation Review (PIR) on behalf of the Maritime & Coastguard Agency (MCA) to assess the effectiveness and performance of the transition to, and delivery of, the current UKSARH contract.

Key Findings

The PIR found that the UKSARH Programme has achieved a successful transition to a fully civilianised, rationalised operation with enhanced capability, while providing a seamless SAR service to the UK. The UKSARH contract is an effective mechanism for delivery of the SAR Helicopter (SARH) capability, providing continuity of service, allowing MCA to both manage risks and prevent significant financial exposure.

The PIR found that realisation of all 10 benefits identified in the UKSARH Benefits Realisation Plan¹ is in progress, with five already being achieved in full. In addition, the overarching benefits of saving lives and replacing the aging fleet of Sea King aircraft, identified in the Business Case², were also assessed as being fully achieved.

A number of additional unanticipated benefits were identified by the review, with UKSARH capability providing effective and essential augmentation to the UK’s medical and police services, particularly in remote areas of UK or during poor weather conditions.

Benefits Realisation					
International obligations	Realised		Value for money	Realised	
National obligation	Realised		Management information	In Progress	
Search and Rescue continuity	Realised		Management arrangements	In Progress	
Common standard of service	In progress		Optimised operation	Realised	
Support to Emergency Services	In progress		Political & public engagement	In Progress	

Table 1: Benefits Realisation

¹ 130304 UK SAR H Benefits Realisation Plan V2

² UK Search and Rescue Helicopter Services Full Business Case; Department for Transport; 1st March 2013

Recommendations

Although benefits are being realised across the breadth of the contract, the PIR identified **a number of further actions and improvements that could enable full benefit realisation, help to reduce risk and ensure the continued availability, performance and safety of the service.**

1. The UKSARH programme sits in the context of a complex set of stakeholders, partners, authorities, volunteer organisations and interfacing capabilities. Further integration of the UKSARH capability within this context could address some of the stakeholder challenges identified by this PIR and enhance the benefits and value for money of the programme. This integration may be achieved by the development and implementation of a detailed capability integration plan that covers the following:

- a. Comprehensive stakeholder and interface mapping and further development of the communication and engagement strategy.
- b. Assessing coordination, command and control arrangements for UKSARH in the context of wider SAR capabilities.
- c. The aircraft types in service have untapped potential to further improve SAR capability by improving data access and sharing, shared situational awareness and strategic planning for use of the UKSARH.
- d. Undertaking joint Training Needs Analyses across the stakeholder community and exploring alternative means of delivering mandatory aircrew training and the non-mandatory training for SAR partners.

Although the context in which UKSARH sits will continually evolve, a capability integration plan will better enable MCA to manage the risks and exploit the opportunities presented by the wide variety of stakeholders, partners, interfacing capabilities and adjacent services. This activity represents the logical next step for a programme which has been successfully implemented and is now seeking to deliver further benefit and ameliorate future risks to delivery.

2. The PIR identified a small number of issues which, if not addressed, may cause risks to SAR capability in the current and future iterations of the contract. These are:

- a. Risks associated with the increase in downwash caused by the new SAR aircraft on landing facilities. It is recommended these are fully assessed and liaison undertaken with other departments/agencies to introduce planning standards for infrastructure if necessary.
- b. Long-term availability of suitable qualified aircrew. Risks associated with aircrew succession planning should be reviewed and relevant personnel planning required of the operator, as a lack of such planning, particularly for the transition to a future contract, presents a risk to MCA over which MCA has limited influence.
- c. The efficient use of SARH capabilities. Conduct tactical planning and improved coordination with Road Ambulance and Helicopter Emergency Medical Service (HEMS) providers to ameliorate risk of SARH aircraft unavailability due to waiting for patient transfer, or overlap on tasks with other assets.

3. Although the UKSARH Programme is assessed to be performing well, the PIR identified additional management processes which should be considered to increase robustness of UKSARH contract, particularly to improve resilience in future iterations of the contract:

- a. The Key Performance Indicators (KPIs) currently in place provide an indication of the performance of the contract, but there are no metrics against which to assess the effectiveness of the SARH service in terms of outcomes. The development of Measures of Effectiveness would enable the impact of changes or issues on SARH delivery and outcomes to be properly assessed.
- b. The introduction of a review process to manage the financial risks to MCA associated with a single commercial operator would be prudent given lessons from the Carillion collapse.

The review also identified that **UKSARH could contribute tangibly to incident prevention, policing and security tasks, and other emergency response activities**, realising significant wider benefit to the UK Government, although this would require a political decision to extend the role of the UKSARH beyond its current mandate³. **Further analysis of the value, benefits, costs and risks associated with expanding the role of the UKSARH should be undertaken to validate these perceived benefits.**



³ Civil Aviation Publication 999; UK Helicopter Search and Rescue (SAR) National Approval Guidance; Civil Aviation Authority 2014

Table of Contents

Executive Summary	2
Key Findings	2
<i>Table 1: Benefits Realisation</i>	2
Recommendations	3
Table of Contents	4
Introduction	5
<i>Figure 1: S92, AW189 and AW139 (transition aircraft)</i>	5
<i>Figure 2: 2018 UKSARH Airbase locations</i>	5
Approach and Key Findings	6
Planning and Evidence Gathering	6
<i>Figure 3: PIR Method</i>	6
PIR Analysis	7
Performance against stated benefits	7
<i>Figure 4: Example of analysis - theoretical transit times for UKSARH</i>	7
<i>Table 2: Table of benefits identified in the 2013 business case</i>	8
Assessment of additional anticipated benefits	8
<i>Table 3: Table of additional benefits identified in the 2013 business case</i>	8
Assessment of unexpected or unintended benefits	9
Opportunities for Improvement	9
Expectation Short-Falls and Issues	11
Improvements for alignment with other services	11
Further Exploitation of the UKSARH Capability	13
Analysis of Contracting Mechanism	13
Resilience of the Service	13
Conclusions	15
Benefits of UKSARH	15
Recommendations	17
Wider Benefits and Opportunities for Collaboration	17
Recommendations	18



Figure 1: S92, AW189 and AW139 (transition aircraft)

(Photo courtesy of MCA)

Introduction

This report documents the approach to and findings of the UK Search and Rescue Helicopters Post-Implementation Review (PIR) conducted on behalf of the Maritime & Coastguard Agency (MCA).

The UK Government operates an aviation-based Search and Rescue (SAR) service. Her Majesty's Coastguard's (HMCG) Aviation Branch provides this service via the UK SAR Helicopter (UKSARH) Programme to all blue-light Category One emergency services, coordinated through the Aeronautical Rescue Coordination Centre (ARCC). The UKSARH capability was transitioned from the Royal Air Force (RAF) and Royal Navy (RN) to Bristow Group in 2015. In order to fulfil its mission at all hours of the day and night, in poor weather, high wind and in high sea-states, UKSARH uses large all-weather helicopters that carry a winch capable of extracting people from the water. HMCG is the only UK blue-light organisation that maintains such a capability.

The transition to the UKSARH contract was a complex transformation, implementing numerous major changes in the way the service was provided. At the time of this PIR, the transition was approaching completion, awaiting the final AW189 aircraft to arrive at Inverness.

The transformation to the current UKSARH Programme involved the following:

- **Operations:** A reduction from four operators to one with the aim of standardising operations across the UK;
- **Basing:** A reduction from 12 airbases to 10, changes in airbase location, and creation of new aviation facilities at seven of these locations and a major refurbishment of the three facilities retained from the previous Coastguard contracts;
- **Equipment:** A change from multiple legacy aircraft (Sea King variants, AW139 and S-92) to two aircraft (AW189 and S-92) with appropriate certification and seamless transition between capabilities;
- **Personnel:** A change, for some areas of the UK, from military aircrew and ground crew to civilian personnel;
- **Governance:** A change from military regulation under the Military Aviation Authority (MAA) to Civil Aviation Authority (CAA), including achieving CAA approval for the service;
- **Legislation:** Addressing the impact of higher standards in how 'place of safety' is defined by legislation⁴;
- **Risk Management:** A change in process from Permissive Risk Environment to Managed Risk Environment;

The evidence produced by this PIR is required to inform MCA's value for money (VFM) assessment of the current UKSARH service and forms a key part of the evidence base for decisions about the future of the service.

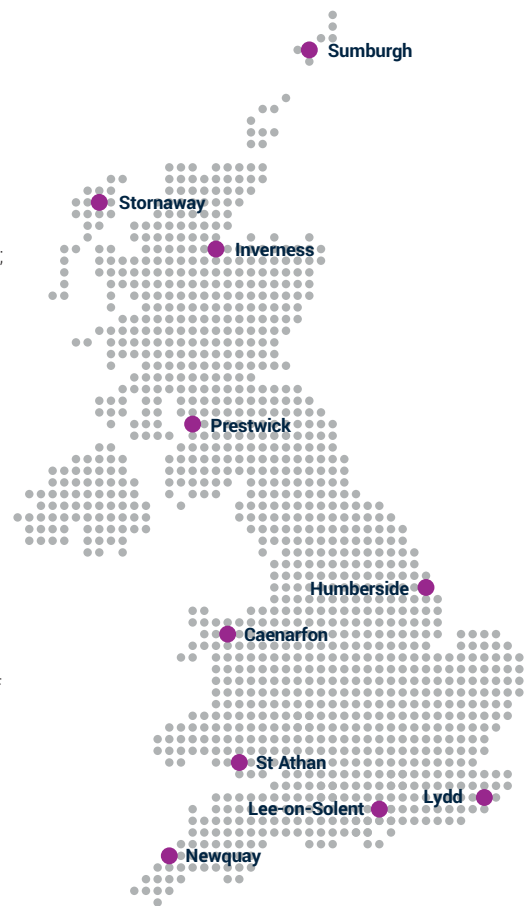


Figure 2: 2018 UKSARH Airbase locations

Wherever an organisation (or part of an organisation) sits on the pathway allows an execution plan to be drawn up to best assist the organisation to mature. Feedback loops are established along the way in order to audit and maintain security and resilience when facing a complex and changeable business environment, whether due to keeping security up-to-date and appropriate to increasingly sophisticated threats, or managing resource flight from the business.

⁴The CAA noted that SAR is defined as "moving a person from place of danger to place of safety". A place of safety in the 1980s was a cliff top to meet an ambulance but this has evolved to be defined as a place suitable to meet medical needs, commonly a hospital.

Approach and Key Findings

The approach to the PIR is illustrated at Figure 3. The approach combined qualitative data and analysis (literature reviews, interviews and opinions), with a quantitative analysis of performance (missions, tasks, utilisation) to identify and assess:

- the performance of the UKSARH Programme against stated benefits;
- unintended or unexpected benefits;
- impact on other government departments;
- any failings or drawbacks associated with the programme; and
- changes which may realise greater value for money and provide opportunities for closer collaboration and innovation between stakeholders.

The aim of the analysis was to deliver impartial, data driven conclusions to help inform evidence based decisions regarding the future of UKSARH.

Planning and Evidence Gathering

A full description of the approach taken to these activities and the evidence and data gathered can be found in the Master Data and Assumptions List (MDAL) which forms Appendix 1 to this report, but in short included:

- **Stakeholder identification:** A list of stakeholders from across the partners, dependents and authorities associated with SARH was compiled and agreed with MCA.
- **Literature Review:** Literature from a variety of primary sources was examined.
- **Stakeholder interviews and analysis:** Thirty stakeholders were interviewed (listed in Appendix 1), generating 630 individual observations. Once interviews were complete, thematic analysis was undertaken in order to identify common themes and broader insights. The identities of stakeholders are withheld from this document for reasons of data protection.
- **Analysis of SARH tasking and incident response:** Based on data provided by HMCG, the nature of SARH tasking over time and across geographic regions were reviewed (as illustrated in Figure 4) to determine whether changes to the SARH contract, type of aircraft and SARH airbase locations have had any detectable effect on tasking.

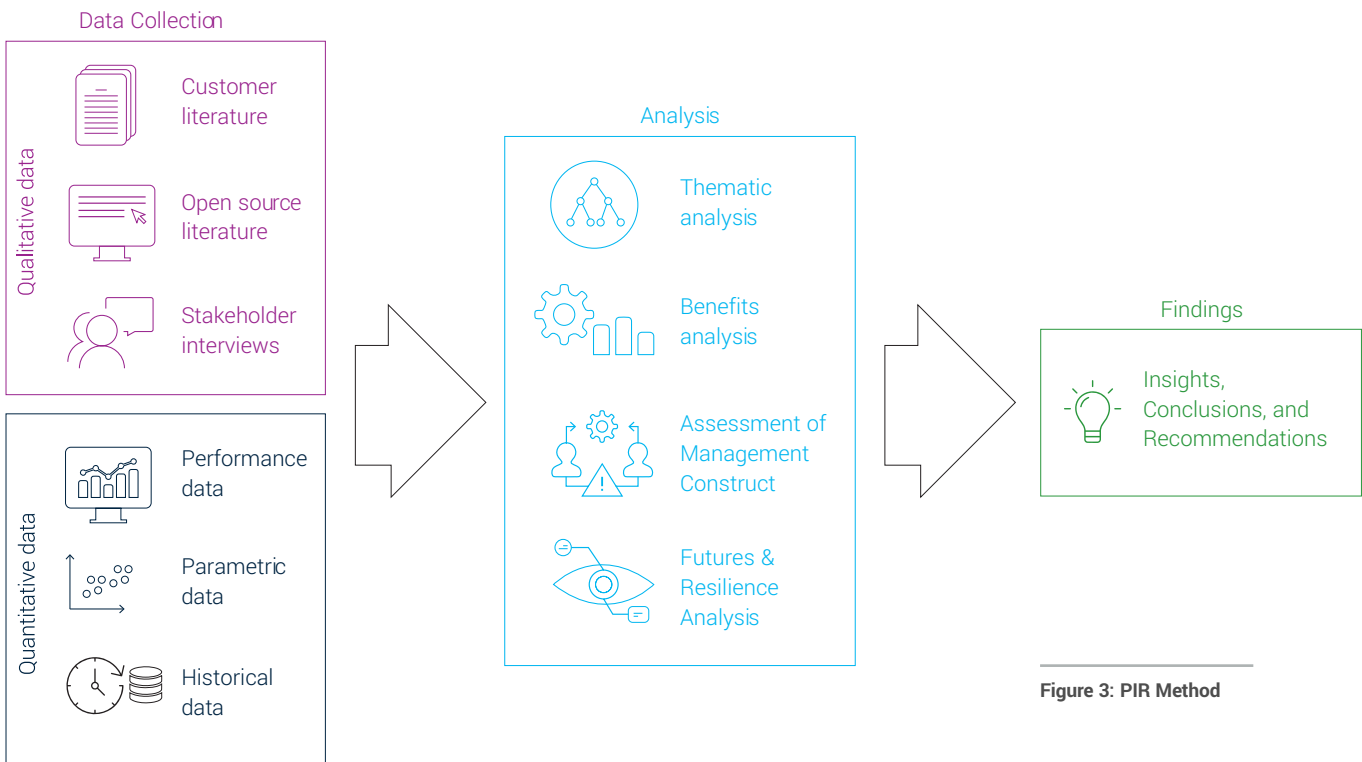


Figure 3: PIR Method

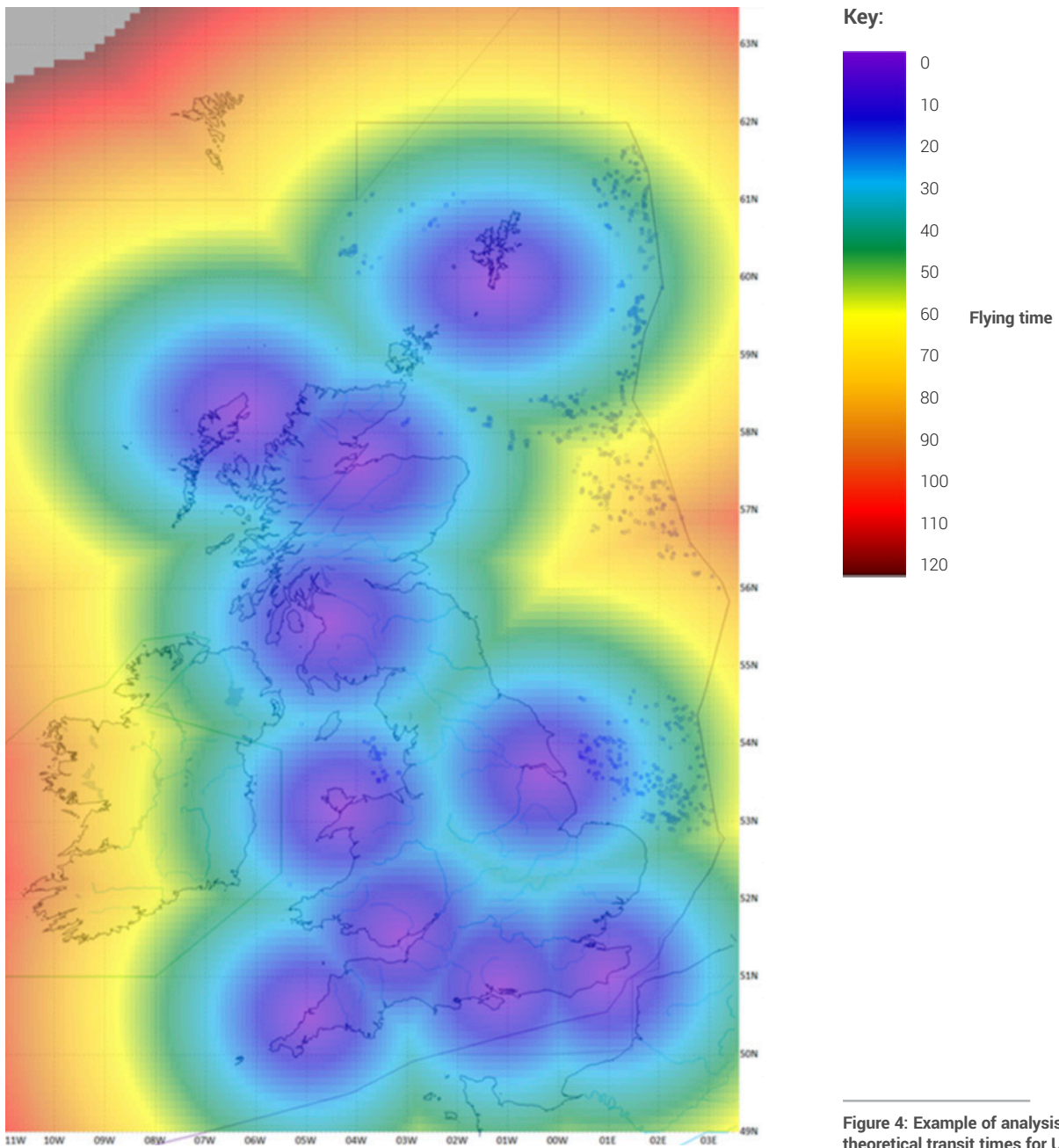


Figure 4: Example of analysis - theoretical transit times for UKSARH

PIR Analysis

Performance against stated benefits

The PIR was tasked with considering whether the benefits in the original business case have been realised and whether any other benefits, not anticipated by the business case, have been achieved.

The 2013 UKSARH Business Case⁵ was supported by a benefits realisation plan⁶ which identified ten benefits (detailed at Appendix 1) for the UKSARH contracted service. Table 2 assesses the benefits identified in the plan, and provides the rationale for the assessment.

⁵ UK Search and Rescue Helicopter Services Full Business Case; Department for Transport; 1st March 2013

⁶ 130304 UK SAR H Benefits Realisation Plan V2

Benefit	Assessment	Rationale
1 International obligations [UK Government able to meet its international and legal obligations to maintain an appropriate UK SAR capability in accordance with United Nations Conventions]	Realised	Analysis shows that geographic coverage is equivalent to the previous service. The new aircraft are superior in terms of avionics, sensors, capacity, speed and endurance. UKSARH is delivering its primary role successful. Actions in place to address areas where UKSARH is not yet providing an equivalent level of capability for some tasking outside its primary role.
2 National obligations [Compliance with the relevant requirements set out in CAP 999 and with JAR OPS 3]	Realised	Relevant Air Operator's Certificates (AOCs) have been secured for the S-92, AW139 and AW189 aircraft at all UKSARH operating bases.
3 Ability to search for and rescue people in distress or potential distress with the same level of capability as today.	Realised	MCA's assessment of SAR aircraft and aircrew availability did not identify any issues in delivering the UKSARH requirement. UKSARH response times are equivalent to the previous service.
4 Common standard of service throughout UK.	In progress	The UKSARH primary role is delivered to a consistent standard. Wider service provision in conjunction with partners and volunteer organisations is yet to be fully standardised.
5 Support for other emergency services - interface with other rescue partners.	In progress	This is being widely achieved, but there are areas where improvements could be made which would benefit both MCA and the rescue partner.
6 Value for money (VFM) provision of a SAR helicopter service.	Realised	The requirement for 10 airbases, each with 98% availability, is the major cost driver for the UKSARH programme. Analysis shows that UKSARH has proven its value in terms of lives saved since the inception of the contract. There was evidence of a resilient mechanism to deal with risks without transferring costs to the Department for Transport (DfT).
7 Harmonised, transparent and consistent Management Information	In progress	Data was consistent across UKSARH locations. There is potential that improved data access and sharing between HMCG and rescue partners could improve rescue or prevention activities.
8 Simplification of the management arrangements	In progress	The Aeronautical Rescue Coordination Centre (ARCC) has simplified its operational tasking and provides standardised management processes through a single responsible team. Improved training with rescue partners would enable the full realisation of the benefit.
9 Optimised operations	Realised	There are examples of successful risk transfer to the contractor. There was evidence that incentivising has increased availability.
10 Political and public engagement	In progress	UKSARH service could have a clearer identity and be more valued by the public. Actions are in hand to continue to raise the UKSARH's profile across the UK.

Table 2: Table of benefits identified in the 2013 business case

Assessment of additional anticipated benefits

In addition to the benefits codified in the Benefits Realisation Plan and listed above, two further overarching benefits were identified in the UKSARH business case. These additional benefits are listed and assessed in Table 3.

Benefit	Assessment	Rationale
11 Timely replacement of aging aircraft	Realised	There was evidence that the timely withdrawal from service of the aged Sea King aircraft was achieved and there was no reduction in service during the transfer of the MOD's SAR responsibilities to the MCA.
12 Lives saved	Realised	There is a large amount of evidence of UKSARH rescuing individuals from life threatening situations. In addition, the support to medical services in casualty / patient transfer will have had an overall positive impact on clinical outcomes.

Table 3: Table of additional benefits identified in the 2013 business case

Assessment of unexpected or unintended benefits

The PIR identified a range of unexpected benefits arising as a result of the UKSARH Programme, namely:

- **Support to UK Medical Services:** UKSARH has supplemented Air Ambulance and Helicopter Emergency Medical Services (HEMS) during periods when dedicated capabilities were unavailable. Moreover, the UKSARH forms an essential part of NHS provision in remote areas of the UK, such as the Shetland and Orkney Islands, and is able to undertake medical transfers in weather conditions which prevent smaller Air Ambulances from operating. UKSARH has contributed substantially to the saving of lives and transportation of the injured and sick when Department of Health and Social Care capabilities have been unavailable or unsuitable for such tasks.
- **Support to UK Police Forces:** Police helicopters are prioritised towards local policing and crime plans. UKSARH supports Police helicopters in delivering enhanced Land SAR capability. In addition to SAR support, UKSARH provides an emergency service helicopter-based transport capability.

Opportunities for Improvement

The UKSARH aircraft is very capable, adaptable and provides an unequalled service in urgent or emergency situations. This capability, added to the transition to a fully civilian delivery has led to opportunities for change and collaboration to bring wider benefits than those envisaged at the inception of the Programme. These opportunities are:

- **Enhancing Ground/Maritime Search and Rescue Effectiveness:** UKSARH tasking, within the scope of current definitions⁷, is to respond to persons who are in distress, potential distress or missing and where appropriate retrieve them to a place of safety providing for their immediate needs, which may include medical. There may be incidents which are currently non-compliant with CAP999 which may benefit as a result of expanding the scope of activities under existing legislation where no lives are at risk.

Examples cited by stakeholders include:

- movement of cave diving team equipment;
- movement of Fire Crews to large or remote incidents such as wildfires where there is no immediate threat to life;
- moving specialist Chemical, Biological, Radiological and Nuclear response teams and equipment in response to an attack or outbreak; and
- moving salvagers to a vessel to prevent it from grounding or sinking.

- **Recovery of bodies:** Body recovery is supported by UKSARH but is outside the scope of the critical SAR tasks and if an aircraft is involved in body recovery it is then not able to respond to a SAR task if required. Body recovery operations may also have an impact on crew duty time. However, extending this service may, in some circumstances and when appropriately managed by coordinating authorities, be beneficial in terms of reducing the risks to emergency personnel of recovering bodies from difficult and dangerous terrain.

⁷ Civil Aviation Publication 999; UK Helicopter Search and Rescue (SAR) National Approval Guidance; Civil Aviation Authority 2014



Expectation Short-Falls and Issues

The study identified a small number of areas where expectations for the UKSARH Programme were not being met, or where issues were apparent.

- **Non-aircrew training:** There is a perceived shortage of time for non-aircrew rescue personnel to train with the aircraft due to a lack of availability of the platform and crews. However, this issue appears to be purely anecdotal and not fully corroborated by evidence. There is evidence of confusion as to the training required, and minimum training requirements for individuals from partner organisations in order that they may be permitted to work with a SAR helicopter. The training needs of partner organisations and the ability of the UKSARH to provide should be further explored.
- **Landing Facilities:** The ability of the aircraft to land on non-prepared sites, in both remote and populated areas, and at Hospital Helicopter Landing Sites (HLS) is a key feature of the capability. The increased physical size of, and downdraught caused by, the aircraft has reportedly introduced additional risk and reduced capability when landing at some facilities and sites. It is recommended that compatibility issues between UKSARH platforms with existing helicopter landing facilities, in particular at HLS, are subject to further investigation.
- **Data Access:** There is evidence that there are opportunities for improved data sharing between stakeholders and partners as a result of the service having more capable aircraft with improved sensors, but such access must comply with the requirements of General Data Protection Regulations (GDPR) and surveillance legislation.
- **Command and control:** There is scope to improve the command and control arrangements for using UKSARH in civil emergencies using the Joint Emergency Services Interoperability Principles (JESIP) Joint Doctrine principles. This would improve the coordination of service process in line with that provided prior to civilianisation of UKSARH.

Improvements for alignment with other services

The following were noted as being needed to improve alignment with other government bodies and services:

- There was evidence that improvements could be made to the way UKSARH and HEMS activities are coordinated where there is overlap to prevent nugatory deployment of an aircraft. This would also benefit from improved understanding by 999 operators of the limitations and capabilities of the different services and their appropriateness for the task in question.
- There is scope for improvement in UKSARH to ambulance handover, which would benefit all parties involved. This could involve variation in where UKSARH lands to best meet road ambulance availability or adjustment of timing to delay departure of a medical transfer to reduce waiting time for ambulance transfer after landing.



Further Exploitation of the UKSARH Capability

A number of examples where the current UKSARH aircraft capabilities could be further exploited to expand or enhance its role were identified, including:

- Using UKSARH advanced sensor capability to enhance search operations and to map and record search areas, improving search coordination.
- Using data from the Forward Looking Infrared (FLIR) sensors to provide information regarding hazards, casualties and terrain to those on the ground.

Analysis of Contracting Mechanism

As there are no direct comparators to the UKSARH contract mechanism, it was assessed using data extrapolated from parallel contracts⁸ and normalised in order to draw robust conclusions for UKSARH.

The PIR found that the UKSARH contract is an effective mechanism for delivery of the UKSARH capability, providing continuity of service during the complex transition period, allowing HMCG to manage both anticipated and unanticipated risks and shielding HMCG from significant financial exposure resulting from those risks. The following key points were noted:

- **Aircraft ownership:** The aircraft ownership model used for UKSARH was shown to meet best practice against other UK blue-light aviation services.
 - **Operator model:** The current UKSARH contract is operated by a single contractor (Bristow Helicopters) which owns and operates the aircraft, holds the AOC for SARH, and has written many of the Standard Operating Procedures (SOPs). The contract is written such that two aircraft types are provided to avoid single point of failure, but a risk unavoidably exists in the fact that the service is provided by a sole commercial operator. The failure of Carillion in January 2018 highlights that the risk of operator failure in terms of financial impact of mitigating such a failure should be considered and sufficient planning undertaken to mitigate this risk.
 - **Measures of Effectiveness (MOEs).** Although UKSARH Programme performance is monitored using Key Performance Indicators (KPIs), the metrics in place provide an assessment of programme management only.
- MOEs designed to assess the service in terms of outcomes would be beneficial in helping to fully understand the impact of changes, issues or failures on the provision of the service. Potential MOEs could include:
1. Time to locate, recover, and deliver a casualty to a place of safety.
 2. Time to complete a search (positive or negative).
 3. Time for medical transport.

Resilience of the Service

The context in which UKSARH operates will inevitably evolve and there are a number of trends and potential changes which may increase the demands on UKSARH or make delivering the service more challenging.

- **Increasing demand:** Trends in recreational activities, increasing population (in weight and number) and increased access to remote areas may drive more demand for UKSARH.
- **Aircrew training and availability:** The UKSARH service relies on Suitably Qualified and Experienced Personnel (SQEP), achieved through aircrew, paramedic, and medical training which is a unique and lengthy process. The pool of trained ex-military aircrew who could be recruited when the service transitioned from military SAR is significantly reduced as the military no longer provide a dedicated SAR capability. It would be prudent to assess the SQEP risks given the unusual nature of SAR flying and ensure operators are contractually obliged to undertake appropriate manpower planning.
- **Threats to safe operation:** The availability of technology with the ability to disrupt flying operations (intentionally or unintentionally) is increasing. Actions to mitigate such threats are being taken across the aviation domain, but an understanding of the potential impact of such threats on the SARH provision would assist in assuring the resilience of the service.

⁸ National Police Air Service, Air Ambulance Service and from the RN and RAF SAR services previously in place



Conclusions

Despite being in transition since 2015, UKSARH is still evolving, with the final AW189 aircraft not expected until after this PIR was complete. However, this study concludes that the UKSARH Programme has achieved a successful transition to a fully civilianised, rationalised operation with enhanced capability, while providing a seamless SAR service to the UK.

The UKSARH contract is an effective mechanism for delivery of the SARH capability, providing continuity of service during the complex transition period, allowing HMCG to manage both anticipated and unanticipated risks and shielding HMCG from significant financial exposure resulting from those risks.

Demands on the UKSARH service remain consistent with those prior to the transition, and performance measures are being met. The UKSARH aircraft is capable, adaptable and provides an unequalled service in urgent or emergency situations.

Benefits of UKSARH

Benefits have been realised against 12 key benefits (10 stated in the Benefits Realisation Plan, and two overarching benefits identified in the UKSARH Business Plan), with seven being fully achieved.

Unanticipated benefits are also being realised, with UKSARH's capability providing effective augmentation to UK medical, police and fire and rescue services, particularly in remote areas of the UK.





Benefits Realisation					
International obligations	Realised		Value for money	Realised	
National obligation	Realised		Management information	In Progress	
Search and Rescue continuity	Realised		Management arrangements	In Progress	
Common standard of service	In progress		Optimised operation	Realised	
Support to Emergency Services	In progress		Political & public engagement	In Progress	

Table 1: Benefits Realisation



Recommendations

There were a number of areas where specific improvements could be made to improve the overall performance and exploitation of the capability provided by the contract under its current SAR mandate. These are mainly related to **improving the integration of the capability across the numerous and complex interfaces UKSARH manages with partners, authorities, adjacent emergency services and volunteer organisations:**

- **Improved communication and engagement with partner, stakeholder and volunteer organisations.** A comprehensive stakeholder and interface mapping exercise would assist in the development of a communication and engagement strategy and standardisation plan.
 - **Enhanced data management and access.** Current sensor capability and data could be better exploited to enhance SAR activities, improve efficiency of searches and reduce risk to ground personnel.
 - **Improvements to training planning and provision.** Discussion between partners, stakeholders and HMCG is required to identify and align needs, expectations and provision.
- Additionally, there were some issues, not associated with the key benefits statements, which require **action to ensure risks are effectively managed and performance is maintained.** These are:
- **Landing Facilities:** Concerns regarding increased risk at some landing facilities and sites due to the increased downwash from the UKSARH aircraft require further exploration. An appropriate interface is needed to ensure that HLS facilities required to accept UKSARH casualties are fit for the aircraft to put down and off-load in a safe manner, and that plans for future HLS take the aircraft's size into account.
 - **Aircrew training and availability:** The pool of trained ex-military aircrew recruited when the service transitioned from military SAR is significantly reduced. It would be prudent to assess the SQEP risks given the unusual nature of SARH flying and ensure operators are contractually obliged to undertake appropriate manpower planning.
 - **Casualty Transfer:** There are occasions where UKSARH waits on the ground for a road ambulance to arrive, and thus is not available for other tasks. Improvements to UKSARH to ambulance handover require exploration.
 - **HEMS and UKSARH Coordination:** Incidents where both HEMS and SARH have been tasked to an incident are caused by UKSARH not being made aware of HEMS tasking, complicated by HEMS not being coordinated nationally through a central location. There is a need for improved alignment and coordination.

The UKSARH contract mechanism provides a robust framework through which to manage the programme and manage risk. However, the implementation of additional processes to manage risk and monitor performance would improve the strength of the Service further. These are:

- **Introduction of a mechanism to regularly review the risks associated with a single commercial entity being responsible for UKSARH operations** and developing a plan to manage and mitigate the risk in the (unlikely) event of a catastrophic collapse.
- **Management and monitoring of the UKSARH Programme could be improved through the introduction of Measures of Effectiveness (MOEs)** to inform performance reviews and manage risk. These MOEs would supplement the Key Performance Indicators (KPIs) already assessed by the Programme and would enable the effect of changes and issues on the delivery of the Service to be fully understood.

Wider Benefits and Opportunities for Collaboration

There are opportunities for increasing the role and scope of UKSARH to provide wider benefits to UK. These opportunities arise as a consequence of the enhanced capability and capacity of the UKSARH compared to other UK Government owned

civilian air assets. Many such activities such as transporting SAR passengers is provided for within the SAR alleviations, but these capabilities are not widely understood by stakeholders. Increases in scope may include:

- Extending UKSARH role to include support to policing and security tasks.
- Allowing UKSARH to conduct body recovery at a time and in conjunction with appropriate stakeholders.

Recommendations continued

There are a number of improvements which, if implemented, will increase the benefits realised by the contract, reduce risk and increase utility of the UKSARH.

1. Improving the integration of the UKSARH capability with the wider SAR landscape could address a number of the stakeholder challenges identified by this PIR, and enhance the benefits and value for money of the programme. This integration may be achieved by the development and implementation of a detailed capability integration plan including by:

- a.** stakeholder and interface mapping;
- b.** further communication and engagement strategy development recognising the perceived shortfalls identified by stakeholders during this PIR;
- c.** assessing coordination, command and control arrangements for UKSARH in the context of wider SAR capabilities;
- d.** improving data access and sharing, shared situational awareness in compliance with legal obligations and strategic planning for use of the UKSARH; and
- e.** undertaking a robust Training Needs Analysis through the stakeholder community and exploring alternative means of delivering aircrew training which is valued and considered essential by SAR partners.

Although the context in which UKSARH sits will continually evolve, a capability integration plan will better enable DfT to manage the risks and exploit the opportunities presented by the wide variety of stakeholders, partners, interfacing capabilities and adjacent services. This activity represents the logical next step for a programme which has been successfully implemented and is now seeking to deliver further benefit and ameliorate future risks to delivery.

2. Address risks to aircraft availability and performance as follows:

- a.** Assess landing facility risk and explore introduction of planning standards for critical infrastructure. Future changes to landing infrastructure or aircraft should be taken in conjunction with all parties to ensure minimal conflicts and effective risk management.
- b.** Assessment of risks in aircrew succession planning and relevant personnel planning as a lack of such planning by the operator, particularly for the transition to a future contract, presents a risk to MCA over which MCA has limited influence.
- c.** Conduct tactical planning and improved coordination with Road Ambulance and Helicopter Emergency Medical Service providers to ameliorate risk of SARH aircraft unavailability due to waiting for patient transfer, or overlap on tasks with other assets.

3. Implement additional management processes to increase robustness of UKSARH contract:

- a.** Develop MOEs against which to review the service to augment the higher level KPIs.
- b.** The introduction of a review process to manage the financial risks to MCA associated with a single commercial operator would be prudent given lessons from the Carillion collapse and recent reports regarding the financial performance of the UKSARH service provider's parent company.

Consideration should be given to the value, benefits, costs and risks associated with expanding the role of the UKSARH beyond its current mandate. This analysis should focus on whether allowing UKSARH to contribute to incident prevention, policing and security tasks and other emergency response activities perceived through the review are likely to deliver tangible benefit to UK Government.



