DOWNED AIRCREW

Does their value to the military machine mean they should be recovered irrespective of the cost?

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Since the origin of man and the existence of independent states, conflict has been a means of resolving disputes. As empires grow, every Great Power is suspicious of any likely or even unlikely rival. What seems defence to one will always appear as an aggressive preparation to another.[1] Prisoners of War (POW) have been a feature of any conflict since wars began, whether it be their treatment by the opposing force or the impact of the loss of trained personnel to the military machine.

The advent of air power introduced a new dimension to war with operations conducted beyond the front line. To counter the new threat, enemy air defences became more sophisticated and despite improved self defence capabilities on aircraft, the likelihood of crews being shot down became greater than ever. At the same time, the cost of training aircrew has increased significantly, with the result that aircrew are now one of the most precious commodities on the battlefield. Furthermore, the introduction of female aircrew has added another dimension to the debate on the treatment and rescue of POWs. Another issue to be considered with modern conflicts is the technological advances of the media. Has the advent of reporters onto the battlefield, with their real-time information service, created greater pressure to rescue downed aircrew?

As highlighted in the Strategic Defence Review (SDR), the future concept of operations for the UK Armed Forces will be expeditionary[2] in nature. In view of the anticipated short term conflicts or peace keeping/peace support operations coupled with today's climate of financial constraint, does the value of aircrew justify the significant cost and effort of a rescue operation particularly if the treatment of POWs will be in accordance with the Geneva Convention?[3] If so, should the rescue operation be expeditious and at the expense of other operations? Additionally, as the UK is unlikely to act independently, should the resources required and conduct of the task be under national, joint or coalition arrangements?

Vietnam, April 2 1972: a pair of USAF EB-66 electronic warfare aircraft, BAT 21 and BAT 22, were flying electronic jamming missions in the de-militarised zone (DMZ) against the North Vietnamese Easter Invasion. The aircraft came under sustained attack from surface to air missiles (SAMs) and, as reported by Major Ed Anderson, the Electronic Warfare Officer on BAT 22:

> *'The pilot reported seeing SAM missiles detonating, at which time I called, "SAM visual, vicinity of DMZ" … At the bottom of the SAM break, I dispensed 15-20 bundles of QRC 530 Chaff. The 2 guidance signals B606s were up together from 10-15 seconds. I never had any indication of Fansong Track While Scan signal…'*[4]

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The missiles were aimed at BAT 21 and scored a direct hit bringing the aircraft down. The sole survivor then became the focus of the single, largest combat search and rescue (CSAR) mission during the Vietnam war. As summarised in the account of the rescue:

> *'After 11½ days trapped behind enemy lines, BAT 21 Bravo was returned to friendly control. But the cost was high. Among the soldiers and airmen, 10 men were killed working or supporting the SAR; one other was rescued, 2 were captured but later released and one was still evading. On the ground, several members of the recovery team were injured. Six more aircraft were shot down and numerous others were damaged, some so badly they would never fly again. More than 800 strike sorties, including B52s, were flown in direct support of this mission.'*[5]

Why was the rescue of one man worth so much? Was it the fact that the American public had the war broadcast live into their homes every night?, Government concern over the "body-count?"[6] or the public concern over the treatment of POWs because of the reports that had been televised?

However, the rescue of downed aircrew or concern over the treatment of POWs was not an issue peculiar to Vietnam. During the Gulf War in 1991, the Iraqi Government chose to televise "interviews" with downed aircrew from the Coalition Forces, including RAF officers John Peters and Adrian Nichol. The broadcasts had the opposite effect that the Iraqis had hoped for. Although intended to dissuade Allied air forces from further action, the condition of the captured aircrew hardened opinion, not only amongst Coalition Forces, but also the rest of the international community and, more importantly, the public in the Allied countries. Although the pictures confirmed people's worst fears, they were seen to be reassuring. As recalled by

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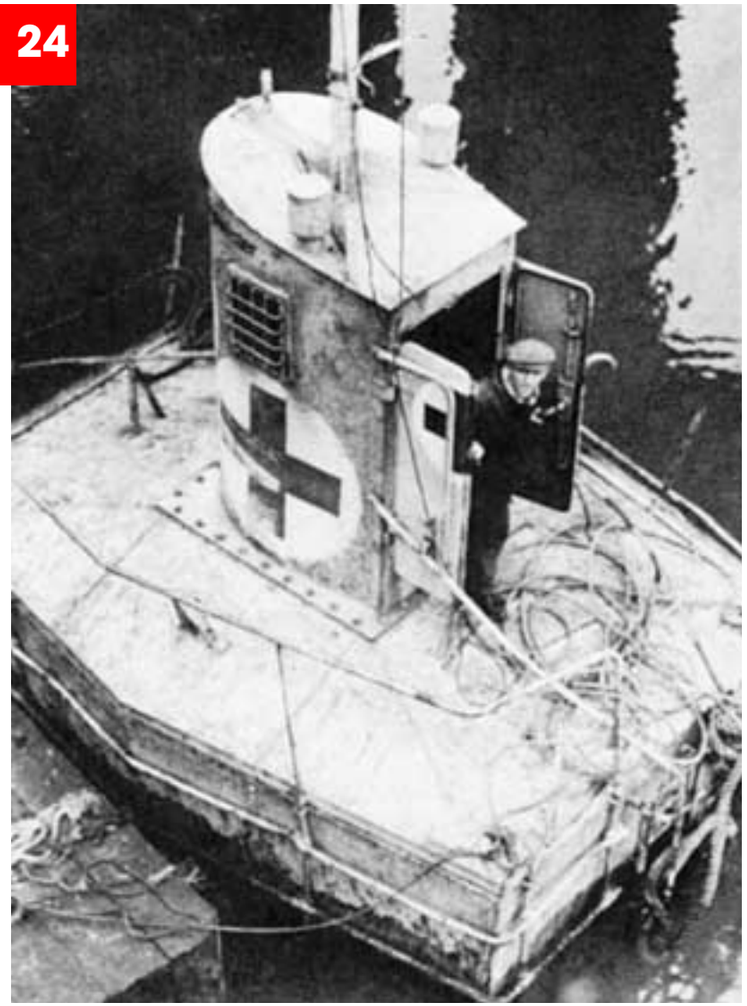
Squadron Leader Bertie Newton 'I was certainly convinced that if you were taken prisoner, you wouldn't get out alive from Iraq. I was very glad when I saw the 2 guys on television, I thought fine, excellent – because they've been on television they're the most likely not to get topped'[7]. In Vietnam, the media reports worked against the American Forces whereas in the Gulf, they worked for the Allied military. So what impact has real time media reporting had on the treatment of POWs and how will it affect conduct of operations in the future?

As in the case of BAT 21, there has always been a requirement to rescue downed aircrew because of their value to the military machine and the need to have as many aircrew available to fly as possible. Moreover, the morale of crews flying over enemy territory is maintained by the knowledge that if they go down, their colleagues will be coming to get them. This paper will summarise the history of the rescue service, including CSAR, consider the need for a dedicated CSAR capability and consider how the UK might provide CSAR facilities.

SEARCH AND RESCUE

'On the 23 April 1944, Lieutenant Harman of the US Army Air Force piloted a Sikorsky YR-4 and rescued 3 British soldiers and an American airman from the jungles of Burma.'[8]

During the Second World War, in an attempt to recover downed aircrew, both Britain and Germany formed rescue services. Initially, rescues were conducted on an ad-hoc basis but, by the end of the war, specially formed units on land, sea or air were carrying out skilful rescues in all areas of the world using equipment designed specifically to overcome problems in the various theatres.[9] Whilst the introduction of the first practical helicopter during World War II provided a new means to rescue downed aircrew, the origins of the service started some 11 years previously when the Germans established a small fleet of boats for the rescue of downed airmen. In 1939, the Germans modified some of their older Heinkel 59 float planes specifically for the air sea rescue role and fitted them with medical equipment, respirators, electrically heated sleeping bags and a floor hatch with a hoist. The Germans also developed rescue equipment such as inflatable dinghies and a fluorescein dye to stain the water around the dinghy bright green enabling them to be seen more easily by rescue aircraft. Also, large buoy floats were positioned in the Channel and North Sea to provide a safe haven for any downed aircrew. These floats had blankets, dry clothing, food, water, flares and lamps stored on board and were regularly checked by patrols from either side. The British approach was more relaxed with their search and rescue system based on RAF high speed boats or any other units that might be available. Some improvement was made in early 1940 when a communication system was established that gave priority to distress messages,[10]



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and the requirement to rescue every downed aviator during the Battle of Britain resulted in the establishment of a joint RAF/RN rescue organisation in Aug 40. Subsequently, a Directorate of Air-Sea Rescue was formed to develop and co-ordinate all air sea rescue methods. During the war, Coastal Command was responsible for saving 5,721 Allied aircrew forced down in the sea between Spain and Norway.[11]

Similar developments occurred in USAAF and USN theatres of operations, many of which were to provide the foundations for improvements in rescue services for other conflicts. However, during the Second World War, concepts and capabilities of rescue were aimed primarily for water recovery. A major development was the introduction of modified B17s which carried a 27ft powered boat complete with survival stores. These aircraft accompanied the bombers, circled just off the coast waiting for the aircraft to return and then assisted any which were damaged and had to ditch, dropping the lifeboat as necessary.[12] The need for a land rescue capability led to the development of the helicopter as a rescue machine and the first squadron was formed in China in May 1945. Air rescue had improved to the point that with good planning and advantageous positioning of the rescue force, most combat crews could reasonably expect to be recovered.

Further advances in SAR came during the Korean war. Early deployments of helicopters in the SAR role were soon increased, as these machines proved so effective. Unlike the Second World War where aircrew shot down behind enemy lines were almost certainly captured, the helicopter became indispensable in recovering crews. In 3 years, over 10% of downed aircrew were rescued from behind enemy lines. However, the helicopter was vulnerable, lacked range and was susceptible to ground fire. These difficulties were reduced by the introduction of newer and more capable helicopters. The French faced similar problems in Indochina. The disadvantage of the helicopter was soon recognised but their only counter was to fly higher. Of all the helicopters used by the French, virtually all were hit by small arms fire although only 2 were known to have been shot down.[13]

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The first use of fighters to escort helicopters was developed during the Korean War – CSAR had been born. Developments by the US continued between the end of the Korean War and their involvement in Vietnam. However, most of these rescue efforts focused on recovery of crews and equipment from the space programme and these developments were to prove woefully inadequate under combat conditions in the South East Asia conflict. Here, the jungle canopy rose as high as 250ft making parachute descent dangerous and rescue very difficult. Helicopter crews started carrying long ropes to lower through the foliage to assist with rescues. These were superseded by the introduction of the “penetrator” which cut through the jungle canopy. The survivor was then recovered by winch.

Procedures were also developed to counter the Vietcong use of survivors who would be left alive at the crash site in an attempt to entice rescue units in so they could also be attacked. The tactic was initially very successful and to overcome this, on being advised that an aircraft was down, the US would establish an exclusion zone around the crash site and all available assets deployed to recover the crew. The area would be strafed and cleared by fighters before helicopters were authorised in for the rescue. The number of aircraft and personnel involved in such rescues was significant and it was also claimed that the diversion of these assets impacted on other operations. Following the rescue of BAT 21 and the high cost paid, the exclusion zones were significantly reduced and aircrew were advised that whilst rescues would be made, it may not be as immediate as before.

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Thus, operations went away from immediate rescues to carefully planned and co-ordinated operations fully supported by fighter assets. However, the costs of these rescues were high. The USAF lost one SAR crewman and 2 aircraft per 9.2 rescues in Vietnam – a very high loss rate of 22%.[14] The procedures have been refined over the intervening years but the principles remain the same. CSAR is now a feature of any war and must be conducted in a well planned, controlled and executed operation. There is no place for an ad-hoc gung-ho approach to the rescue of downed aircrew. That said, following the shooting down of a Blackhawk helicopter in the Gulf War, a reckless rescue mission was launched and resulted in further casualties and prisoners of war.

AIRCREW TRAINING

As stated earlier, aircrew training has increased in terms of cost and complexity over the past 20 years. In the UK, training to "award of wings" for a fast jet (FJ) pilot takes 121 weeks and costs approximately £1.0M. Add to that the 20 weeks of training on an Operational Conversion Unit and the 36 weeks to attain a full operational category, a total time of 3 1/2 years and a cost approaching £3M is reached.[15] Despite several studies under recent defence reviews, it has proved impossible to reduce this period or cost. Indeed, when this has been attempted, the reductions made have had to be reversed within 2 years as the

failure rate and the need to give students additional flying increased significantly. Thus, the value invested in FJ aircrew is immense and this value increases over time as operational experience, improved airmanship and graduation to formation lead and flight commander status is gained and these cannot be replicated quickly. On current return of service figures, the average FJ pilot provides 9 years' service in return – a cost of £333.3K per year. Add to this a capitation rate of £45K per aircrew Flight Lieutenant and the value of each individual becomes considerable. Moreover, in a modern conflict, the time taken to train replacements would undoubtedly be longer than the actual operation. Whilst it could be argued that aircraft take longer to replace than training time for new crews, the ratio of crew to aircraft (2:1) mean that this is not a significant factor in a short term conflict. Therefore, it is essential to recover downed aircrew whenever possible.

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MEDIA IMPACT

Technological advance has not just been limited to air power. In Korea, media technology was not sufficient to allow live broadcasts and this allowed censorship of material although there were some independent journalists not subject to this control. On the other hand, however, the free reporting during the Vietnam War coupled with the advance in technology played a significant part in that war. Many in the American military believe that the unrestricted media access and the resulting hostile public opinion undermined the US war effort in Vietnam.[16] Additionally, this was the first time that live pictures of a war were transmitted directly to American households, thereby raising concerns over the morality of the war. Even in modern conflicts, there is still difficulty over media access. The military will often consider journalists' requests for information as unreasonable and a threat to the operational aspects of the war whilst, on the other hand, the journalist will see the reluctance of the military to provide details as censorship. Free-lance reporters will be on the battlefield irrespective of whether they are authorised or not and they have the capability to transmit information as and when they wish. Whilst accredited journalists may show restraint in

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reporting details of CSAR type operations, this is not the case for all. Reporting of downed aircrew will not only result in pressure from home to mount a rescue but will also provide the opposing force with information.

Modern media has also played its part in peace support operations such as Somalia and Bosnia. With real time reporting, the media has brought the shock and horror of situations into the homes of the population who then demanded action. The military option is seen as the easiest and deployment of forces followed quickly in both situations. The media are on hand to transmit live pictures of events as they occur. In Somalia, the body of a dead American crewman was dragged through the streets in front of the World Press. In Bosnia, the pressure to rescue Scott O'Grady was intensified by the media reporting. As stated by author Ross Perot, 'Peace keeping missions can turn into all-out war, even if only for a short period of time' and 'Television reporting of war has turned it into a spectator event that can be confused with Athletic contests. Peace keeping missions, when they become war, exact a terrible price.'[17] The reality of peace and war is available at a moment's notice. The demand to recover trapped personnel is highlighted by the camera which leads to more pressure to conduct a rescue operation.

CSAR

NATO defines CSAR as: 'the detection, location, identification and rescue of downed aircrew in hostile territory in crisis and wartime and appropriate isolated military personnel in distress who are equipped and trained to receive CSAR support, throughout a joint Operations Area.'[18] Ideally, CSAR operations should be conducted by dedicated forces; however, given the constraints on UK defence expenditure, UK CSAR will be a capability rather than a role for specific units. Moreover, US procedures, like other nations which currently have a CSAR capability, have now switched from dedicated units to a general capability practised by many different forces with responsibility for recovery of the downed

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aircrew initially falling to the force from which they came. Potentially, the only specialised unit now is the Israeli Air Force Aeromedical Evacuation Unit (Unit 669)[19] which is tasked with the rescue and recovery of personnel trapped behind enemy lines. The unit is a significant force in its own right and has commandos, doctors and medical staff as well as a variety of attack and support helicopters. Accepting that most future conflicts will be expeditionary in nature,[20] involve coalition partners and likely to be of relatively short duration, why is there a need to provide a rescue capability in what will almost certainly be hostile territory and may result in the loss of additional assets? There are many reasons why these operations should be conducted, but the 4 principal ones are as follows:[21]

a. Governments and the military commanders have a duty of care to reduce, wherever possible, the risk to the lives of its servicemen.

b. The likely short duration of high intensity future conflicts, together with the time necessary to train personnel for operations, places greater emphasis on the rescue of highly trained assets.

c. The morale of protected units (crews) is improved.

d. The enemy are denied the use of captured personnel, including downed aircrew, as sources of intelligence and propaganda, or as human shields.

In addition to the above factors, there is an increasing emphasis on moral responsibility. Coupled with duty of care, this factor is an increasing feature of Service life as can be seen by the introduction of programmes throughout the Services such as “Investors In People” . Moreover, in a democratic society, what is the value of a human life? This point has tested the most senior civilian judges when considering the compensation to be paid on culpable death. Therefore, if it is considered immoral to place a monetary value on a person’s life, is a democratic Government, unlike a totalitarian one, obliged to make all necessary attempts to rescue downed aircrew and prisoners? Public reaction to the treatment of POWs in recent conflicts would indicate that in a democratic society, this is the case. This is particularly true as the nations that we have, or are likely to engage are the least likely to observe the various Geneva Conventions.

Thus, if we accept the need for personnel to operate beyond the forward line of troops, the need for CSAR is paramount and must be taken into account when planning for any operations. This planning may result in a requirement for additional assets to provide the necessary CSAR support or may simply highlight what resources are available to allow the Joint Commander to decide if the risk to personnel is justified given the opportunities to recover them. A fundamental principle of CSAR is that the

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helicopters, which are vulnerable to enemy action, must only be in hostile territory for the minimum time. Therefore, it is essential that all necessary precautions to protect helicopters are taken. A CSAR package should consist of air defence aircraft in the sweep, suppression of enemy air defences (SEAD) and escort roles; ground attack aircraft to counter any surface threat; electronic counter measures, airborne refuellers and AWACS aircraft. In addition, there is a need to provide a cadre of specially trained ground personnel to provide fire support, protection and to recover the downed aircrew. On coalition operations, unlike national operations, many of the assets will already be available in theatre and the only requirement may be to provide extended range, air-to-air refuelled, helicopters.

At least 2 and preferably 3 helicopters will be required to conduct each CSAR mission. The costs of a dedicated force are high as can be seen from the table below:[22]

ITEM	Cost per Item	Number per Package	Total Cost
Helicopters	£28,000,000	2	£56,000,000
Aircrew	£45,000	8	£360,000
Ground Team	£28,000	6	£178,000
TOTAL			**£56,538,000**

Note that the above figures exclude the maintenance and other base support necessary to keep a squadron operational.

The RAF has just acquired 8 Chinook HC Mk 3 aircraft and is awaiting delivery of the first of 22 Merlin HC Mk 3. At a cost of £26M for the Chinook and £28M for the Merlin, these represent a significant investment. They will be capable of conducting CSAR operations as they are night vision goggle capable (NVG), have air-to-air refuelling (AAR) – although the UK does not have an aircraft capable of refuelling helicopters in-flight – and a comprehensive defensive aids suite. However, the aircraft have been bought for specific tasks – the former for special forces operations behind the enemy forward line of troops and the latter for army support – and cannot be solely dedicated for CSAR operations. There are insufficient funds within the defence budget to purchase dedicated aircraft and, if there were, the utilisation of such assets in their primary role would not justify the purchase.

Historically, the UK has appeared to be reluctant to develop a CSAR capability. Some would maintain that this was purely on financial grounds; however, it could be argued that during the cold war period, there was recognition that the recovery of downed crews from within the Eastern Bloc would be too difficult and hence the requirement for the capability was not pursued. Today, in light of the perceived type of operations in the future and taking account of the requirements above, there is now a recognised operational requirement to have a CSAR capability. Therefore, should the UK attempt to " buy into" an existing CSAR capability such as the American, French or Italian capability or look to form a multi-national or NATO organisation as with the NATO AEW Force (NAEWF)? The problems with the first proposal are that no nation has a dedicated CSAR force. They are either primarily employed in standard SAR tasks or special forces operations. Consequently, it is unlikely that purchasing a specific element and not the whole package would be acceptable. Secondly, even if this option were possible, there could be difficulties over the fact that other nationalities are placing their lives in danger to rescue UK forces when the UK will not commit its own military to such a task. There are also the difficulties of a conflict of tasking, different rules of engagement (ROE) and of command and control. Additionally, it may be the case that in certain coalition operations, the UK will be prevented from participating as they cannot provide a CSAR capability. Finally, political agreement on the use of such an organisation and deployment of the forces to the same operation may not occur. Thus, the option to join an existing organisation by being a customer is not a practical solution.

The second option also has difficulties, many of which are the same as that of buying into an existing capability. To establish a NATO or a European Force would require investment from member countries, all of which are reducing their defence expenditure and unlikely to be willing to provide additional funding. Moreover, with most European Nations establishing some form of national CSAR operation,[23] the majority would not be prepared to forsake their own capability and the duplication of assets would be unacceptable. In addition, whilst a command and control system can be established quite easily using the NAEWF as an example, difficulties may still arise when not all member nations participate in an operation and it is conducted

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under a United Nations mandate rather than a NATO or European one. Furthermore, there would still be the requirement to ensure that tasking priority decisions made by the Joint Force Air Component Commander (JFACC) are complied with and that national interests do not interfere in the process. Finally, the military would prefer to retain their own independent capability, albeit as a secondary role, rather than relinquish the safety and recovery of their personnel to a third party. Therefore, on political and financial grounds, this option is unlikely to progress.

If the value of the individual to the military is so great but the cost of rescue is too heavy a price to pay in today's financial climate, should nations consider the use of unmanned aerial vehicles (UAVs) to provide the information or fight the battle normally conducted by manned aircraft? The procurement and use of a UAV such as the Phoenix is very cheap when considered against the cost of Eurofighter. The UAV is portable and can be taken around the battlefield with relative ease. However, the flexibility inherent in air power[24] is not available with such a system. Whilst there is no doubt that the use of UAVs in certain roles such as reconnaissance provides an effective solution, to date the technology to conduct effective aerial combat using such vehicles does not exist. If the advance of technology continues to progress at the rate that it has done over the past 10 years, there is little doubt that such a capability could be available within the next decade. Indeed, the Future Offensive Attack System currently under study as a replacement for Tornado GR4 includes the option for UAV. On the other hand, the

probability of a fully operational UAV capability must be regarded as very low and the loss of flexibility in response from a manned aircraft counts against the introduction of such a system. Moreover, currently, the reliability of datalinks and the time lag inherent with the use of such systems means that it is dangerous to give combat missions entirely to UAVs. Whilst the introduction of UAVs into the offensive, defensive and tactical role would remove the need for CSAR for those operations, there would still be a requirement for CSAR for special forces (SF) personnel.

Consequently, the most cost-effective solution for the UK is that of assigning helicopters the secondary role of CSAR. However, it is essential that the secondary role is fully equipped and funded. If not, there is the risk of losing poorly equipped assets manned by highly trained aircrew. Any conflict between an SF mission or the rescue of downed aircrew would be resolved by the JFACC. Although there will be a training penalty keeping the crews proficient to conduct the basic operation, the advantage of this concept is that there will always be specialist troops available to assist in the recovery of the aircrew whether it be an SF unit or the RAF regiment personnel assigned to helicopter squadrons. Moreover, whatever operation the UK is involved in, be it bi- or multi-national, there will often be helicopter support assigned which could provide a basic CSAR. This will provide a vital morale boost for UK forces and will ensure that the UK is able to participate in any operation. Recently, to improve their ability and to provide vital training in a new role, RN Commando Sea King Helicopters have taken part in a multi-national amphibious CSAR exercise in Spain.[25] The Commando helicopter proved its versatility in this role as it has NVG compatible cockpit, external lighting, armoured crew seats and a full defensive aids suite. For the future, if the concept of a modular helicopter as suggested by Westland Helicopters[26] is taken forward, the UK will have a very flexible operating platform. This is particularly relevant for Merlin where a basic airframe can be re-roled quite easily for specialist missions.

Should it be required, national assets could be combined into a specialist package to

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conduct CSAR. As these operations will be controlled by the JFACC, this should present no difficulties and could lead to a very effective and capable package. However, it should be noted that there would also be a training penalty with this option as it would be essential for the various forces to practise such a tasking to ensure that all the relevant procedures in STANAG 7030 were adhered to.

This paper has investigated whether the value of downed aircrew to the military machine justifies their rescue irrespective of the cost. Currently, the UK does not have the capability to conduct such operations in a hostile environment and in the present financial climate, is unlikely to afford a dedicated capability in the future. Therefore, it is necessary to balance the treatment of POWs, the cost of training and the need to keep all available aircrew flying against the cost of mounting rescue operations whether as a national, coalition or multi-national operation. Additionally, the influence of the media on public perception of operations will need to be taken into account.

The capture and retention of POWs has occurred in all major conflicts during this century but the advent of air power brought a new dimension into the situation where the time and cost to train aircrew meant that they were too valuable an asset to lose. As more complex aircraft were introduced with a resultant increase in training time and costs, the need to recover downed aircrew and return them to the front line as soon as possible became more compelling. Although the requirement was quantified, the costs of procuring and operating a dedicated rescue service for downed aircrew was harder to justify.

The advance of media technology has been significant. Media coverage during Total and Total/Limited wars tends to be in accordance with national priorities and censored through military sources. However, in lesser conflicts, the advent of real time reporting and free-lance journalists outside the control of the military or governments has posed new difficulties. Independent journalists provide accurate and strong visual footage direct to the people. Although the media see and photograph POWs, there has been nothing to suggest that the media coverage has caused maltreatment of any captives. Thus, the media have not adversely affected the treatment of POWs and may have assisted in their well being. Moreover, the introduction of female aircrew has not influenced media reporting although the first woman aircrew fatality may result in a change in this area.

Historically, the treatment of the vast majority of POWs has been in accordance with the Geneva Convention. The notable exceptions have been where one force or perhaps both opposing forces have not signed and ratified the convention or where the conditions accorded the captive force are well below that expected by the POWs. Thus, if POWs are treated correctly and there is no media pressure for a rescue, why do we need CSAR? The value of the man coupled with a moral requirement for the government to provide duty of care means that some form of rescue attempt should be made. Moreover, recovery of a downed aviator denies a source of intelligence or propaganda to the enemy and permits the timely return of aircrew to the front

line in what will generally be short duration, high intensity conflicts. The UK cannot afford a dedicated CSAR capability. The possibility of purchasing CSAR from a coalition partner is unlikely to be satisfactory and could result in severe political and military frustration over command and control, priority of tasking and conflict of national interest. The option of forming a joint or multi-national force also faces difficulties over funding, command and control, priority of tasking and national interests. Additionally, the problem of forming a force to operate in a hostile environment with different ROE is not easy to overcome. Therefore, the most sensible option is to use available UK assets for CSAR as a secondary role. The advantages to this are that no additional assets are required, the JFACC will be able to make decisions on tasking and priorities and, where appropriate, national assets in theatre can be combined into a multi-national force. Against this will be the requirement to provide training and for all potential forces to conduct regular exercises at national and, potentially, multi-national level.

In summary, in a high density, short duration conflict, the inability to easily replace downed aircrew ensures that they are a high value asset. Therefore, morally, because of “duty of care” and to maintain the morale of other aircrew, all downed crews should be rescued whenever possible to prevent them falling into enemy hands where they could then be used as a source of information or as a propaganda tool. The nature of the environment means that this will usually be a rescue conducted under hostile conditions and will therefore be a CSAR operation. The UK needs to provide its own CSAR capability and this should be achieved by use of assigned assets in a fully funded and equipped secondary role. Where necessary, these assets can operate as part of a multi-national force.

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