



House of Commons
Defence Committee

**The contribution of ISTAR
to operations:
Government response to
the Committee's Eighth
Report of Session 2009–10**

Second Special Report of Session 2010–11

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The Defence Committee

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Committee staff

The current staff of the Committee are Mike Hennessy (Clerk), Georgina Holmes-Skelton (Second Clerk), Karen Jackson (Audit Adviser), Ian Thomson (Inquiry Manager), Richard Dawson (Senior Committee Assistant), Christine McGrane (Committee Assistant) and Miguel Boo Fraga (Committee Support Assistant).

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Second Special Report

The Defence Committee published its Eighth Report of Session 2009–10 on *The contribution of ISTAR to operations* on 25 March 2010, as House of Commons Paper HC 225. The Government's response to this Report was received on 17 June 2010. This is appended.

Government response

This is the Government's response to the House of Commons Defence Committee's ("the Committee's") report entitled "The Contribution of ISTAR to Operations" (Eighth Report of Session 2009-10 - HC 225), published on 25 March 2010. The Committee's conclusions and recommendations are set out in bold.

It should be noted that a number of projects and programmes have undergone name changes as part of a piece of work to improve coherency across this area. These changes are detailed in the responses below.

1. (Recommendation 1) This Report can provide only a useful snapshot of the principal issues relating to the current contribution of ISTAR to operations and set down a few markers for the future. We have not had the chance to examine all the issues we hoped to address in this inquiry, but we hope that our successor Committee will continue to monitor this area. It is crucial not only to the success of the current ISAF mission but also to the future defence and security needs of the United Kingdom. (Paragraph 8)

The Department thanks the Committee for their work on both this and their previous report¹ and their recognition of the importance of ISTAR to the success of both current and future operations. The Department looks forward to the work of the successor Committee and any interest in this area.

Balance across the ISTAR chain

2. (Recommendation 2) We are pleased to hear that the MoD is now giving priority to improving the dissemination of information collected by ISTAR assets in theatre. The Armed Forces' capacity to process and disseminate information they receive clearly falls behind their capacity to collect. We commend the MoD for acknowledging the problem. The MoD, in its response to this Report, must set out substantively the developments so far made, or planned with appropriate funding, which it believes will rectify this imbalance across the ISTAR chain. (Paragraph 14)

The MoD continues to recognise that it needs to address the balance between its capacity to process and disseminate information, and its superior capacity to collect it; although there remains a requirement to further improve its collection capability as well. The MoD has recently implemented several Urgent Operational Requirements (UORs) in order to improve its processing and dissemination capabilities on operations; the Network Geospatial Support UOR has delivered the capability to disseminate geospatial intelligence data and products to users on the UK element of the NATO Secret network via web services; the Intelligence Processing Architecture (IPA) UOR enables the collation, sharing, and dissemination of intelligence data; and the ATTACKER UOR permits the sharing and dissemination of imagery and associated products. Under current plans, in the longer term, part of the Department's core programme DABINETT (now renamed as SOLOMON) will incrementally improve the dissemination of ISTAR information from 2012 onwards.

¹ Defence Committee, Thirteenth Report of Session 2007-08, *The contribution of Unmanned Aerial Vehicles to ISTAR capability*, HC 535

ASTOR and ISTAR

3. (Recommendation 3) The MoD and the Armed Forces must be congratulated for bringing ASTOR into service with due modifications, which is proving to be a valuable asset in the mission in Afghanistan. This capacity to bring into use equipment designed for another purpose in another theatre has been a hallmark of recent UK operations: while not ideal, it does show clearly the adaptability and flexibility of our Armed Forces, something which will always be needed no matter how tailor-made for a specific theatre equipment might be. (Paragraph 17)

The Department welcomes the Committees' comments on the success of ASTOR (now renamed SENTINEL) and the recognition of the adaptability and flexibility of our forces. In addition to this, the novel procurement methods applied to the Hermes 450 Unmanned Aerial Vehicle (UAV) and Signals Intelligence equipment for Afghanistan have enabled vital new capabilities to be rapidly delivered to theatre. Force Protection ISTAR, delivered under project CORTEZ, is maximising the use of ISTAR equipment that was previously procured for different theatres, including Northern Ireland and Iraq. In the medium term, the lessons identified from the delivery of UORs to Afghanistan and the capabilities they provide are being taken forward to core projects. In order to provide capability that supports operations across the spectrum of conflict, we require flexible, modular systems that can be upgraded and modified as required to meet changing threats and theatres of operation. This can best be achieved with the short and flexible acquisition cycle that has been central to the successful delivery of capability to current operations.

DABINETT

4. (Recommendation 4) DABINETT is a vital programme for the future of UK ISTAR capability. It sits at the heart of the capacity of the Armed Forces effectively to use the information gleaned from their many platforms and sensors. It provides new capacity to process as well as to disseminate information and intelligence, without which the past and current funding of collection capability will at least in part have been wasted. The MoD must make as clear as possible in its response to this Report the importance it accords to the DABINETT programme as a tool to improve general UK military capability, and to assist with the mission in Afghanistan. We expect the Strategic Defence Review properly to acknowledge that DABINETT is central to winning the intelligence war over the enemy, and thus to our national security. (Paragraph 22)

The Department welcomes the recognition in the Committee's report of the significance of the SOLOMON programme to the future UK ISTAR capability. Under current plans, Phase 1 of the SOLOMON project will initially deliver a capability to disseminate ISTAR information over the UK Defence Information Infrastructure networks between March 2012 Initial Operating Capability (IOC) and March 2015 Full Operating Capability (FOC). Further improvements will occur when the SOLOMON Phase 2 projects begin to deliver additional capability commencing in 2015.

The Department fully recognises the importance of the SOLOMON programme. SOLOMON is likely to provide the cornerstone from which the UK will enhance its ISTAR capability over the next 10-20 years. SOLOMON will provide the tools and infrastructure to enable the UK to achieve a decisive intelligence advantage over potential adversaries and

will support UK operations both at home and abroad as well as the UK contribution to coalition operations. The Department will consider the development and future investment of ISTAR capabilities as part of the Strategic Defence and Security Review (SDSR), including capabilities such as SOLOMON.

Bandwidth and Frequencies

5. (Recommendation 5) Bandwidth and frequency issues clearly remain. The MoD is very much aware of them, and understands that their prominence is possibly going to grow as ISTAR use and the practice of better and more widespread dissemination of data becomes the norm. We look to the MoD in its response to this Report to update us on its work to optimise the amount of bandwidth needed for efficient ISTAR use, and to secure the appropriate bandwidth. The MoD should also update us on current ISTAR frequency challenges. Success in asymmetrical conflict is massively reliant upon good intelligence—but intelligence needs to be shared quickly and efficiently to be effective. (Paragraph 28)

There are a myriad of frequency challenges faced by the MoD and ISTAR, most notably in the area of spectrum management. In the near term, the PIKENET UOR has been implemented to monitor real time spectrum usage on operations, and the SPECTRUM programme plans to provide the core management capability for efficient use of the spectrum from 2012. In the longer term, the Department is sponsoring a Spectrum Research package to demonstrate the best way to deliver Spectrum Situational Awareness (SSA) to the deployed commander. This SSA will allow the commander to dynamically manage the spectrum in frequency, geography and time, enabling spectrum re-use, freedom of manoeuvre for employment of jamming and ultimately Spectrum Dominance within an increasingly spectrum congested environment.

The MoD continues to seek to improve its access to bandwidth and is also reviewing the procedures and processes of how we manage ISTAR products so as to identify how to use the available bandwidth in the most efficient manner. The Department recently signed an extension to the Skynet Private Finance Initiative which will increase the amount of available satellite communication bandwidth available.

Data standardisation and inter-operability

6. (Recommendation 6) We are impressed by the pragmatic approach taken by the UK's Armed Forces since their initial deployment in Afghanistan in adapting technologies to hand and adding to them through the UOR process, to make them as interoperable as possible with others held by UK Armed Forces and by coalition partners. (Paragraph 33)

The MoD clearly recognises the need for further integration of systems into existing and future networks. Data standardisation and inter-operability form a central tenet of our approach to achieving greater integration, and the UK is a key member of the NATO Multi-Sensor Aerospace/Ground Intelligence, Surveillance and Reconnaissance Interoperability Coalition (MAJIIC) community. MAJIIC is a nine-nation collaborative programme to maximise the military utility of surveillance and reconnaissance resources through the development and evaluation of operational and technical means for

interoperability of a wide range of Intelligence, Surveillance and Reconnaissance assets. The MoD intends to fully support the MAJIIC programme to ensure the UK influences and maintains data standardisation and inter-operability with NATO and other potential coalition partners.

7. (Recommendation 7) The ISTAR process needs to be as strong as possible across all three Services and extending over into coalition partners. We expect this to be understood not just within the MoD, but, in the interests of our more general national security, across the whole of Government. (Paragraph 33)

Collaborative working across the Services, Government and with international partners is increasingly becoming the default way of working for the delivery of ISTAR capability. A consistent approach is being further embedded through Joint Intelligence Doctrine, which focuses on Understanding and Intelligence. This is currently being updated with input from across Government, academic and international stakeholders. The MoD is also working closely with partners to ensure alignment of projects and initiatives.

People: skills, training and awareness

8. (Recommendation 8) ISTAR will remain a vital capability. It will be central to dominating the battlespace for the foreseeable future. The MoD must therefore look to reconfigure some of its trades to create more flexibility and greater opportunities for advancement for those with skills relating to ISTAR use. A supply of sufficient appropriately skilled people to undertake the demanding roles within ISTAR is vital. (Paragraph 39)

The Department recognises the potential benefits of using industry personnel as a valuable component of capability as exemplified by the Hermes 450 UAV programme. However, commercial issues surrounding the allocation of risk should not be underestimated. Equally, in addition to the welcome and valuable industrial contributions, cooperation with Other Government Departments and other nations continues to fill key skills and capability gaps within our ISTAR programmes.

The critical importance of ISTAR in the current and future operating environments has been fully recognised within the MoD. The Department accepts that ISTAR will remain a vital capability and can assure the House that the three Services and the Civil Service are taking steps to formalise the training of ISTAR practitioners.

The Army and the RAF already have intelligence specialists and the RN has recently created a new intelligence sub-specialisation within the RN Warfare Branch to address some of the identified shortfalls and increase the numbers of personnel actively engaged in intelligence and ISTAR. Within the Civil Service, there is a Professional Head of Branch [since 2006] who has a remit to champion and develop the careers of Image Analysts.

The three Services have also indicated a desire to professionalise ISTAR trades and qualifications to include a career stream. Although this is at a very early stage the Army is currently finalising direction for this development to take place within their Service.

9. (Recommendation 9) We consider it vital that deploying units are exposed to training on theatre standard ISTAR equipment, where possible identical to that used in

operations. This has not always been possible, especially where equipment was procured through the UOR process and the urgency of need required deployment directly to theatre. We are pleased that the MoD has put such important training in place. A working knowledge and hands-on experience of using ISTAR capability is vital to enhancing awareness and increasing efficient use of this capability, not just for specialists but for the Armed Forces more generally. (Paragraph 41)

The Department welcomes the comments made by the Committee on the importance of providing deployed units with relevant ISTAR training and these accord clearly with lessons learned from operational experience. The MoD recognises the need to replicate, in training, the ISTAR capabilities employed in Theatre as vital. Every effort is made to ensure that training is undertaken in the most realistic environment utilising the same ISTAR equipment as is used in Theatre. Where it is not possible to have a particular capability function for training in the UK (e.g. Tactical UAVs) this can be mitigated by providing alternative platforms that provide the same product to the user (e.g. manned aircraft instead of UAV providing Full Motion Video for Ground Forces). However, we always remain mindful of the need to provide in depth capability briefs on the Theatre-standard equipment during all pre-deployment training.

Individual and collective ISTAR training are areas that are continually being reviewed and addressed. Pre-deployment training is offered to units before embarking on operations, and is regularly updated to ensure that all new capabilities are briefed; equipment capability briefs are a standard aspect of training serving to improve the understanding of both ISTAR capabilities and procedures. Training commanders and staff in the use of the capabilities and the fusing of product into usable intelligence to inform decision making is critical, and is taught and practiced during various pre-deployment training using realistic intelligence scenarios.

ISTAR and Improvised Explosive Devices

10. (Recommendation 10) We have been very impressed by the commitment, not just within all parts of the MoD and the Armed Forces but also within industry working with the military, to improve detection of IEDs as a priority, and to work creatively and co-operatively to that end. The technologies and techniques refined during the current campaign in Afghanistan must be mainstreamed into future UK ISTAR capability. (Paragraph 44)

The Department welcomes the recognition of the breadth, depth and intensity of our work countering Improvised Explosive Devices (IEDs). The challenges required to defeat the devices have been addressed through development of an integrated Counter IED Campaign Plan, concentration on techniques, tactics, and procedures, developing improved equipment and in the training and education of our personnel. The improved capabilities have been effectively delivered through the UOR system with the provision of timely access to relevant information and intelligence to increase support to the decision maker and the 'man on the ground' with improved situational awareness, reducing the overall threat posed by IEDs. Looking to the medium-term, action is being taken to ensure the capabilities currently provided under UOR are taken into the core programme to deliver assured capability on an enduring basis.

11. (Recommendation 11) The expectations of what ISTAR can contribute to minimising civilian and UK military casualties must be kept in proportion. Commentators and the public find it hard to understand why coalition forces equipped with superior technology cannot prevail more easily and counteract IEDs and insurgents. It is imperative that the MoD explain the contribution of ISTAR to these activities. Realism about the nature of asymmetric warfare is essential if we are to enable ISAF and other similar missions to succeed. (Paragraph 46)

The MoD clearly recognises the need for an element of expectation management with regard to what ISTAR can ultimately achieve. The negative impact on the campaign of any civilian casualties is increasingly appreciated, and clear direction in this respect has been given by General McChrystal, along with more taut Rules of Engagement. Importantly, our ISTAR efforts are not only directed against enemy forces but are also used to build up our understanding of all aspects of the physical, virtual, and cognitive domains within the operating environment in Afghanistan. A thorough understanding of all aspects of the operating environment will ensure that force (both kinetic and non-kinetic) is only applied to best effect and only when necessary. However, it is in the nature of conducting a counter-insurgency campaign against an opponent fighting asymmetrically that we will regrettably continue to suffer casualties to both our own troops and civilians. Our troops will need to continually expose themselves to the risk of attack in order to interact with and gain the trust of the people, which is the key to unlocking strategic success. We recognise that agile, determined insurgents will continue to find new ways of operating under our ISTAR horizon, and we will need to continually adjust our techniques, tactics, and procedures to counter this rapidly evolving threat. This is reflected in the value placed on the UOR process and the agility it offers in keeping our equipment as relevant as possible.

ISTAR and the Strategic Defence Review

12. (Recommendation 12) There is the possibility that plans for the development of ISTAR capability might be put to one side or slowed during the process of the Strategic Defence Review, not just on account of financial constraints but because of the cross-Service nature of the capability. This should not be allowed to happen. (Paragraph 48)

The MoD recognises the importance of ISTAR capabilities in the potential future operations described in the Green Paper on Defence and the paper *The Future Character of Conflict* published in parallel with the Green Paper by the last Government. The Green Paper noted that its analysis “confirms many of our current priorities—for example, in enhancing surveillance and reconnaissance, further improving the precision of our armaments and integrating our strategic communications”. The Department expects the development of ISTAR capabilities to be studied in detail in the context of the SDSR, and decisions on future investment in ISTAR capabilities to reflect our assessment of the impact effective ISTAR will have on the success of our future operations.

13. (Recommendation 13) We must emphasise that failure to proceed at least according to existing plans to improve ISTAR capability and to fund those improvements sufficiently that they accord with the existing timetable would be misguided. This would imperil the UK's ability to maintain the technological/intelligence edge over current and future adversaries. (Paragraph 49)

The Department welcomes the Committee's comments on the importance of delivering improved ISTAR capability and will remain cognisant of this when considering options in future Planning Rounds and during the SDSR.

14. (Recommendation 14) ISTAR is at the heart of flexibility and effectiveness in operations, maximising efforts and concentrating the impact of other existing capabilities. This vision of the centrality of ISTAR to overall defence capability needs to be taken into the Strategic Defence Review. The control of this vital resource needs to be clarified to ensure proper coordination and development of ISTAR across the Services. We invite our successor Committee to consider monitoring the place of ISTAR in the Review and to ensure that it does not get overlooked on account of pre-occupation with tightening budgets, individual single Service procurement programmes or issues of the size and structure of the Armed Forces. (Paragraph 50)

The Department welcomes the Committee's acknowledgement of the importance of ISTAR. Work in the SDSR will consider ISTAR and Information Management / Information Exploitation, which will influence the future requirements for the entire ISTAR capability across both Collect and Direct, Process and Disseminate. This work will include the exploration of changes to organisational and force structures to better serve the coordination and development of ISTAR in Defence.