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**Report of the Comptroller and Auditor General on the 2008-09 Resource
Accounts of the Ministry of Defence.**

Report of the Comptroller and Auditor General to the House of Commons

Introduction

1. The Ministry of Defence (the Department) Resource Accounts for 2008-09 report net expenditure of some £37 billion. This includes payroll costs for the Armed Forces of £8.9 billion, which are reported under Requests for Resources 1 and 2¹. The financial statements also report assets of some £122 billion mainly consisting of land, buildings, fighting equipment and stores together with gross liabilities of some £15 billion consisting of, for example, creditors and provisions.

The purpose of my report

2. This Report explains the basis for the qualification of my audit opinion. It also provides an update on the actions taken by the Department to address the issues identified by my predecessor in his Report on the 2007-08 Resource Accounts².
3. The Department is addressing the issues identified in this Report, but there remains significant further work to be done to ensure that a robust control environment is re-established. I have provided a number of recommendations intended to assist the Department. Some of the issues identified will take a considerable amount of effort and time to address effectively.

My obligations as Auditor

4. Under the Government and Resources and Accounts Act 2000 (the Act) I am required to examine and certify all Departmental Resource Accounts. International Standards on Auditing (UK and Ireland) require me to obtain evidence to give reasonable assurance that the Department's financial statements are free from material misstatement. In forming my opinion I examine, on a test basis, evidence supporting the disclosures in the financial statements and assess the significant estimates and judgements made in preparing them. I also consider whether the accounting policies are appropriate, consistently applied and adequately disclosed. I am also required to satisfy myself that, in all material respects, the expenditure and income shown in the resource accounts have been applied to the purposes intended by Parliament and conform to the authorities that govern them.
5. Votes A for the Ministry of Defence is presented annually to Parliament to seek statutory authority for the maximum numbers of personnel to be maintained by the armed forces. Note 38 to the accounts discloses the number voted by Parliament and the maximum numbers maintained during 2008-09 for the Royal Navy, Army and Royal Air Force in all active and reserve categories. My role is to inform Parliament whether or not the approved Estimates (Votes A) have been exceeded.

Audit opinion

Qualified opinion due to material error in military specialist pay, allowances and expenses paid via the JPA system and a limitation of scope due to the inadequacy of

¹ A further Request for Resources, RfR 3: war pensions payments, is not the subject of this report.

² HC 850 2007-08 Ministry of Defence Resource Accounts 2007-08. In my predecessor's report, he placed a limit on the scope of his audit opinion in relation to expenditure of around £920 million on allowances paid to military personnel.

evidence to support certain income, expenditure and balances in the financial statements.

6. I have qualified my regularity opinion on the Department's 2008-09 financial statements because a material value of payments of specialist pay, allowances and expenses made via the Joint Personnel Administration (JPA) system have been made to individuals who are not entitled to them, or to individuals where the evidence supporting their entitlement is not available (paragraphs 10 to 16 below).
7. I have limited the scope of my "true and fair" opinion on the Department's 2008-09 financial statements because the Department was unable to provide me with evidence to support the:
 - (i) recovery of overpayments of specialist pay, allowances and expenses associated with the payments noted above;
 - (ii) level of income recognised by recovering the costs of certain accommodation and food charges from the pay of Service personnel (paragraphs 17 to 18 below), and
 - (iii) value of certain fixed assets and stock balances reported within the financial statements (paragraphs 30 to 63 below).
8. I was also unable to obtain sufficient evidence to support the accuracy of service personnel numbers in relation to the number of reserves for the Royal Navy and the Army and therefore I am unable to report to Parliament whether or not the approved Estimates (Votes A) have been exceeded (paragraphs 19 to 20 below).
9. In respect of the Department's Resource Accounts for 2007-08, my predecessor limited the scope of his opinion on the accounts because of weaknesses in the JPA system³. A number of the concerns raised in my Report build on similar concerns raised by my predecessor.

Qualifications of my opinion in respect of military specialist pay, allowances and expenses

10. This section of my Report describes in more detail the reasons for the qualifications of my opinion in respect of military pay transactions processed via the JPA system (paragraphs 11 to 21). It also provides further information on weaknesses in military HR processes and the Department's efforts to date to remedy the weaknesses highlighted in my predecessor's Report (paragraphs 22 to 27). Finally, I draw attention to areas for further action (paragraphs 28 to 31).

Material error in payments of military specialist pay, allowances and expenses

11. The framework of Service personnel HR policies, regulation and administration is collectively known as Joint Personnel Administration (JPA). The Department, the Services' Principal Personnel Officers, Front Line Commands and the Service Personnel and Veterans Agency (SPVA) all contribute to JPA in order to support the administration of approximately 192,000 Regular and 90,000 Reserve members of the Armed Forces. JPA depends on a software package that provides a wide range of processes including the payroll function, centralised records of service and the management of assignments and training. During 2008-09, the JPA payroll system was used to administer around £8.9 billion of staff costs for Service personnel.

³ HC 850 2007-08 Ministry of Defence Resource Accounts 2007-08.

12. A fundamental tenet of the JPA system is that input is carried out mainly by self-service users and Human Resources (HR) clerks both in Units and Manning Branches and is subject to only very limited further checks. Because of this the Department relies heavily upon the accurate input of information to provide the correct pay and allowances to Service personnel. In addition Service personnel are able to submit their own expenses claims and payment is normally made without further checks. The Department has a range of detective controls in place but these will not prevent error occurring or detect all errors that have been made.

13. In the absence of adequate input controls over the processing of military pay, allowances and expenses, my staff carried out testing of a sample of basic salaries, allowances and expenses paid via the JPA system.

14. My examination of the sample revealed that 14.7 percent of the transactions tested contained an error in the payment. These errors amounted to some 10.1 per cent by value of the sample. I have therefore concluded that this represents material error in the population as a whole. The key errors on which I am reporting relate to:

- errors in the payment of specialist pay;
- incorrect payment of allowances to Service personnel due to incorrect input of data, and
- failure to provide supporting documentation to validate the payment of allowances or expense claims as required by departmental regulations.

I found no material error in relation to basic pay for service personnel.

15. From the random sample of payments tested by my staff, an estimate of error is provided below.

Area	Amount paid £	Overpayments £	Underpayments £	Net most likely error £	Gross most likely error £
Specialist pay	235,000,000	74,718,637	7,557,341	67,161,296	82,275,978
Allowances	560,000,000	99,044,121	56,273,559	42,770,562	155,317,680
Expenses	288,000,000	30,582,873	261,671	30,321,202	30,844,544
Total	1,083,000,000	204,345,631	64,092,571	140,253,060	268,438,202

16. I consider this level of error to be material to the account and therefore I have qualified my regularity opinion in this respect. I have also qualified my “true and fair” opinion on the basis that the Department is unable to estimate the level of any recoveries of these overpayments.

Limitation on the scope of my audit opinion in respect of income recovered via the military pay process and for the purposes of my report on Votes A

17. I have limited the scope of my opinion due to the inadequacy of evidence to support the completeness of approximately £83 million of income relating to charges made to personnel. Particular areas were deductions from pay for occupying single service accommodation and for food.

18. Given the absence of adequate input controls over the processing of charges for occupying single service accommodation and other deductions made directly from pay, my staff were unable to take assurance from management’s own monitoring controls and, because of the

limitations of management information, my staff were also unable to carry out reliable analytical procedures. As a result:

- individual Top Level Budget⁴ (TLB) holders were unable to reconcile or confirm the completeness of deductions from pay for which they hold budgetary responsibility back to JPA to enable correction of mis-postings, and
- I was unable to establish the appropriateness of amounts recovered for the current and prior years.

19. I was also unable to obtain sufficient evidence to support the accuracy of certain categories of Service personnel numbers reported to Parliament as part of Votes A as shown in Note 38 to the Resource Accounts. The Army have been unable to provide the maximum number of Service Reserves as monthly figures for Reserves have not been collated during the year. The Royal Navy have also been unable to provide numbers for the Royal Naval Reserve "List 7". Whilst they have been able to provide maximum numbers for the Royal Fleet Reserve (Navy and Marines), the Royal Naval Reserve and the Royal Marines Reserve they have been unable to provide evidence to fully support the figures that have been disclosed.
20. The evidence available to me to support the figures stated for the maximum numbers maintained was not sufficient to enable me to report to Parliament whether or not the approved Estimates (Votes A) have been exceeded.
21. There were no other procedures available to me to carry out an audit of these areas and I have therefore limited the scope of my opinion in this regard.

Development of the JPA system

22. In my predecessor's Report on the Department's Resource Accounts for 2007-08, he described the difficulties surrounding the implementation and operation of the new JPA project. That Report detailed a number of significant weaknesses in the JPA system, which was undermining its effectiveness in delivering the capability which had been originally intended. His Report also detailed concerns about the lack of controls within the system to prevent and identify errors and about the number of cases where incorrect information was held within the system.
23. He drew attention to the Department's review of the JPA system⁵, reported in May 2008, which noted key issues in the implementation of JPA and lessons to be learned. This report also included a recommendation to carry out a further review to assess the gap between desired capabilities for JPA against the actual capabilities and how to get to the desired end.
24. In May 2009, the Department produced this further "stocktake"⁶ report which provided an updated assessment of the key gaps between what the JPA system was intended to deliver and what the system actually delivers. In response to this latest report, the Service Personnel Board is developing a road map to enable further changes to be made to enable the desired outcomes to be achieved as far as possible.
25. Key areas in which the Department has identified that performance does not yet match aspirations include:

⁴ Top Level Budget holders are the main budget holders within the Department. There are currently 8 TLBs: Navy, Army, RAF, DE&S, SIT, Central, CJO, DE.

⁵ The Barr report

⁶ As recommended by the Barr Report

- the JPA system is extremely complex and subject to continuous change both to improve performance and to allow the services to provide a better pay and allowances framework. There are still some 400 “extensions” to the system which provide variations to the functionality of the original off-the-shelf package which is the foundation for JPA. Analysis by SPVA who are responsible for the operation of JPA has found that some 25% of these have a high impact on complexity and support to the system. Their work has usefully identified those which are both complex and less stable which should in turn assist when further updates are planned;
 - there remains frustration at the lack of immediate access to JPA terminals. Inadequate access undermines a key part of the vision for the JPA system which was for individuals to take responsibility for the maintenance of their own personnel data through self-service. Although there is an expectation that internet access will improve overall access, there are network and capacity issues still to be addressed and financial constraints are likely to limit the potential for significant improvement;
 - Reserve Forces, in particular, suffer from a lack of access to the system and their pay, allowances and expenses often do not fit easily into existing processes as the system was not originally designed for this part of the Service personnel population;
 - data quality is poor in a number of important areas such as the location of personnel, leave, nationality and “whether trained”⁷. The key to improving this is believed to be a change in culture to promote participation and responsibility and simplification of some of the most complex rules which themselves give rise to error;
 - management information, for example for location, nationality and annual leave is considered by users to be inaccurate or out-of-date. This is inhibiting effective personnel management in the widest sense. Most importantly, the information does not facilitate budget holders’ monitoring of expenditure, with the associated opportunity to identify potential errors, and
 - key users are developing parallel systems, having to perform additional validation or take other necessary action to compensate for weaknesses in the JPA system. For example, the Defence Analytical Services and Advice (DASA) corrects data from JPA to produce its own statistics for reports to the Armed Forces Pay Review Body, and is also considering whether to request the removal of the National Statistics’ status⁸ accorded to its manpower reports for Reserve Forces and Cadets (TSP 07) because of the unreliability of data from the JPA system.
26. System improvements are being made and the reporting capability has also been enhanced. Important developments include the proposal to set up a joint board to be responsible for data management and policy and the establishment of an Army data management organisation to lead their work to improve and maintain JPA data quality. The Stocktake report also proposes an enhanced management information tool (Oracle OBIEE+) to supersede the current tool (Discoverer) which provides an important opportunity for improvement. All of the potential improvements these changes may bring have, in some cases, yet to be seen as there is an inevitable time-lag until the impact can be fully assessed.
27. Despite the weaknesses in the JPA system, the Army has recently reported that the reputation of the system is improving⁹. Whilst I welcome these efforts to improve the quality of Army data, mitigating actions like those taken by the Army will undoubtedly undermine the achievability of the efficiency savings originally intended to flow from the implementation of the JPA project.

⁷ “trained” is an important statistic as it enable management to identify the level of available forces for operations.

⁸ The status of data as a National Statistic is only accorded to data that meets strict quality criteria set by the Office for National Statistics..

⁹ Annual report of the Army

Further issues for consideration

28. I welcome the improvements taking place and the further work planned by the Department as a result of the recent “stocktake” report. However as the Department recognises, several step changes are still required before the end-to-end military pay process including JPA can be considered fit for purpose.

29. Important issues also remain which I do not consider have been sufficiently addressed by the work carried out to date. Key areas where further consideration is required include:

- ***ensuring the accuracy of the personnel data held on the JPA system.*** The issue of incorrect data in the JPA system is fundamental both to financial reporting and to the personnel management process and is acknowledged to be a widespread problem which needs urgent and sustained action. One consequence of the poor quality of data held on the JPA system is that the Department is unable to use this system to report robust information to Parliament on numbers of Service personnel against the estimates allowed under Votes A;
- ***ensuring appropriate quality control over input to the JPA system.*** Responsibilities in respect of the quality of input need to be clear and TLBs need to ensure, through appropriate training and review, that HR clerks at Units are inputting data accurately. This may involve a review of the resources currently devoted to this role;
- ***reduction in errors in specialist pay, allowances and expenses.*** With the lack of basic input controls, the Department needs to consider more specifically how to reduce the level of input error in relation to basic pay, allowances and expenses to an acceptable level. The Department intends to introduce some input checks in July 2009 and this should lead to improved control. However, I do not believe that these control enhancements, even if accompanied by improved training and promotion of a culture of taking responsibility for accurate use of the JPA system, will be sufficient to reduce error to the necessary extent;
- ***adequacy of controls to deter and detect fraud.*** The Defence Fraud Analysis Unit has drawn attention to the growth of suspected frauds in respect of payments made via the JPA system. The Department has a number of compliance checks in place in relation to expenses including a random sample of 5 per cent of expense claims and there are plans to use analytical tools to target checking on unusual transactions.
- ***ensuring that access is possible for all types of users.*** There is a concern that the Department is rolling out further applications onto the Department’s main IT platform¹⁰, without the necessary associated development of IT capacity. This will have an impact on all applications, including the JPA system, and will inevitably have implications for the reliability and accessibility of the JPA system. Lack of reliability and appropriate access could have an adverse impact on the Department’s ability to enforce compliance with individuals’ responsibilities, which could fundamentally undermine the rationale for the introduction of the JPA system;
- ***facilitating budgetary control for TLB Holders.*** The Department needs to continue efforts to ensure that management information is provided to the TLBs to enable them to operate budgetary control effectively, for example by supporting accessible and prompt analysis of variances to allow any necessary remedial action to be taken by the TLBs. Some budgetary reports have been made available since early 2009 but it is too early to assess whether these meet budget holders’ needs;
- ***revisiting the potential for harmonisation of pay and conditions of service.*** The complexity of allowances and expenses means that, even with appropriate training, there remains a high risk of HR clerks or other personnel making mistakes. There is a

¹⁰ Commonly referred to as DII(F): Defence Information Infrastructure (Future)

continuing tension between the argument for simplification and harmonisation, particularly in view of the impact the current systems have for the complexity and risks of the JPA system, and the argument that the system should not be allowed to shape rules and regulations that may be required to meet specific Service personnel and business needs;

- **identification of the full cost of operation of the JPA system.** There is a general aim for the JPA system to reduce administration costs but there is a risk that efficiency savings from implementation of the JPA system may be leading to increased costs elsewhere within the Department and Services;
- **strong project management over the transfer to Oracle.** The complexity of the JPA system, with its added extensions, means that early preparations need to be made if the application is to be moved onto Oracle Fusion as support for the current application is forecast to end sometime after 2012 once Oracle have completed their product switch to Fusion. The “stocktake”¹¹ report notes that a decision will be required by mid 2010 to upgrade or not, although no specific recommendations are made in the report on how this project will be managed and resourced;
- **sufficiency of evidence to support deductions for accommodation, food and other charges through the JPA system.** Responsibility for accommodation charges and food lies with Defence Estates (DE) and Defence Equipment and Support (DE&S) respectively. Deductions are made from pay based on input into JPA by Units who are also responsible for ensuring credit is given for periods when personnel are not due to make payment, for example, if they are away on exercise or deployment. DE and DE&S have no means by which they can assess whether the income due is complete.

Limitation of the scope of my opinion in respect of assets

30. In this part of my Report, I explain further the reasons for the limitation of the scope of my audit opinion due to the inability of the Department to provide adequate evidence to support certain fixed asset and stock balances within the financial statements (paragraphs 31 to 63). I also provide information on the Department’s approach to the management and valuation of assets (paragraphs 31 to 47) and describe in more detail the specific concerns around the management of, and accounting for, certain military equipment including, but not limited to, Bowman communications equipment (paragraphs 48 to 63).

Limitation on the scope of my opinion in respect of assets

31. I have limited the scope of my opinion in relation to around £6.6 billion of asset values reported within fixed assets and stock in the financial statements, due to insufficient evidence to support the existence of:

- certain inventory and stock items stored principally by the Defence Storage and Distribution Agency (DSDA); and
- certain military equipment including BOWMAN radios and associated equipment.

32. Each year, my staff review the results of the Department’s stock counts and carry out a programme of independent counts to gain assurance over the accuracy of inventory accounting records. My staff also monitor the extent to which inventory owners have validated the movements and balances reported through the general ledger.

33. My staff carried out focussed testing of the inventory at various DSDA sites including Donnington, which holds inventory with an estimated net book value of £1.0 billion. This testing identified the greatest level of inaccuracy with 76 out of a total of 345 lines of stock counted being found to be inaccurately reported in the inventory accounting systems

¹¹ Paragraph 3.15

comprising of 36 surpluses and 40 deficiencies. DSDA were unable to provide comprehensive explanations of the causes of the high discrepancies detected during the audit.

34. As described below, the Department has processes for assessing the completeness and accurate reporting of all fixed assets. The annual process for certain fixed assets including vehicles and certain grouped assets has revealed a significant increase in the levels of discrepancies being reported noting both surpluses and deficiencies.
35. In relation to BOWMAN assets in particular, the monitoring, tracking and accounting for assets has proved difficult for the Department for a number of reasons, which I explain further below. As a result of these difficulties, systems have only been able to accurately report on the existence and location of between 80-97 per cent of expected numbers of BOWMAN radios and associated equipment. By the year end the Department's most realistic assessment provided a visibility level of 89 per cent of the BOWMAN assets believed to be in service. At this level some £155m of such assets reported in the Departmental Resource Accounts could not be fully accounted for.
36. The level of control exercised by the Department is inadequate and the level of evidence required in order for me to provide an opinion on the existence and completeness of the relevant assets underpinning the values reported in the financial statements (and the associated expenditure in the Operating Cost Statement) has not been available. There were no other procedures available to me to carry out an audit of these balances and I have therefore limited the scope of my opinion in this regard.

The Department's approach to inventory management

37. The Department's Resource Accounts for 2008-09 includes raw materials and consumables of £6.2 billion and capital spares of £7.9 billion. There are a wide variety of assets reported under these categories as the Department holds over 1.4 million different lines of stock. These range from items of fighting equipment and significant capital spares, such as aircraft engines, to consumable items such as batteries.
38. The Department stores inventory items at a number of sites in the United Kingdom, the largest depots being in Donnington and Bicester. A programme of continuous stocktaking is performed to ensure that the inventories accurately record the levels of stock held. Because of the nature of continuous stocktaking it is important that errors are investigated and the impact assessed in case systemic issues are found.
39. The aim of stocktaking in the Department is:
 - to provide assurance on the information necessary about stock levels to ensure reliable logistics support to meet operational tasks;
 - to verify the validity, completeness and accuracy of accounting records to demonstrate and provide adequate assurance regarding the validity of the asset values reported in the Department's Resource Accounts; and
 - to provide assurance to the inventory owners that their stockholdings are being properly safeguarded and accounted for by the custodians, for example by allowing trends of discrepancies to be monitored in order to deter, prevent and detect possible theft and fraud.
40. The Department's policy is to ensure that all inventories are subject to a full stocktake during a four-year stocktaking cycle. The key elements of this cycle are:
 - each year a minimum of 70% of the total value of inventories held is checked;
 - every line item is checked at least once every 4 years;

- items categorised as high risk are verified annually;
- additional checks are carried out on sensitive items;
- 2% of checks are re-performed, and
- there are additional management checks on the effectiveness and efficiency of the cyclical stocktaking procedures.

41. In addition to the physical counting and checking of inventories performed by custodians at stores, the owners of inventories are also required to review and validate stock movements and balances reported to them through the general ledger.

Weaknesses in inventory management

42. The Department's stock systems are highly complex, because of the number of different lines of stock and locations at which they are held. The networked systems comprise a range of data feeds, incorporating a number of both new and legacy systems.

43. The complexities within the stock systems create a significant risk of error, and unintended consequences can occur as a result of minor changes or actions in one system. It is therefore critical that data from systems is fully reconciled in order to ensure that it is being accurately passed from warehouses and deployed systems to the general ledger which, in turn, supports the valuation of these stocks in the financial statements.

44. In 2008-09, the results of daily stocktakes across the depots operated by DSDA have shown a deterioration in the accuracy of reported stock holdings. The level of reported errors varied significantly, revealing high levels of discrepancies between the inventories counted in the stores and the amounts recorded on the underlying inventory accounting systems. The increase in discrepancies suggests that the systems for recording the receipt, holding and issue of inventory items may not be working as intended. In some areas the difficulties reconciling data held on warehouse systems to the data held on central stock accounting systems further weakens inventory management.

45. Particularly high discrepancies were found during the audit of inventories held at DSDA. As DSDA holds the majority of the Department's inventory (approximately 66 per cent), the impact of these errors on the reliability of underlying stock accounting records is considerable. In addition, insufficient management checks were performed by DSDA for the first nine months of 2008-09.

46. Many inventory owners were also unable to confirm or support the balances and movements reported in their own records. Difficulties encountered included:

- incorrect data entries by local inventory staff at storage depots and warehouses;
- unexplained adjustments made to inventory balances by the central stock accounting team to correct system-generated errors;
- reallocation of ownership of inventory items to owners who were unfamiliar with the stock concerned;
- changes in personnel due to restructuring and relocation, which resulted in a lack of inventory management and accounting expertise within the owning units;
- closure, in December 2007, of the depot at Stafford with stores being transferred mainly to Donnington and Dulmen in Germany. Stores were not checked on leaving Stafford and it has taken time to check these into their new locations.

Action taken by the Department

47. The Department recognises that, in part, the issues that have arisen relate to system problems in the end-to-end logistics process and have taken urgent and extensive steps to improve materiel and stocktaking procedures including:
- setting up a campaign to be led by the Chief of Defence Materiel as the logistics process owner to address the wider end-to-end logistics issues which have led partly to the discrepancies and issues found;
 - the creation of a Stock Integration Plan inventory action team of 24 staff to review processes and perform checks across all DSDA sites;
 - in DSDA, management and re-performance checks have been re-established since January 2009;
 - further work is continuing to reconcile legacy stores and stock systems, and
 - planning to engage a single partner to help introduce a common process architecture, in order to rationalise the number of inventory systems.

Military equipment

48. All assets, except land and buildings, are managed by DE&S. Once assets are issued to units in the front line commands, the units as the “custodians” have responsibility for monitoring and controlling the physical condition of the assets and for reporting losses, returns and impairments. Transactions affecting the Fixed Asset Registers are processed by a third organisation, the Fixed Asset Processing Centre (FAPC) which processes information affecting Fixed Asset Registers and generates the relevant accounting information for the DE&S.
49. Two of the Fixed Asset Registers maintained by the FAPC form the Managed Equipment Fixed Asset Registers (MEFAR). The MEFARs record assets with a net book value of some £6.1 billion and are used to record the values of certain managed equipment such as wheeled and tracked vehicles, firearms, grouped assets and encrypted communication equipment.
50. Information on managed equipment assets is input to the MEFAR using data fed from a number of subsidiary systems, for example:
- Data for wheeled and tracked vehicles is input by extracting data from a system known as MERLIN;
 - Grouped assets such as rifles are fed into the MEFAR from an inventory management system known as MAESTRO;
 - The number and value of BOWMAN communications assets is supplied to the MEFAR by the lead Integrated Project Team.

The verification of assets held on the MEFAR is performed through specific census checks in the case of MERLIN, MAESTRO and BOWMAN assets.

Weaknesses in the management of equipment recorded through MERLIN and MAESTRO

51. The Department conducts the census of MERLIN and MAESTRO assets by issuing returns to asset “custodians” usually military units who check the location and condition of the assets. The Department collates this information and produces an Annual Report summarising the results of the exercise and this forms a key part of its assurance that these assets are recorded accurately and completely. Surpluses and deficiencies should be investigated and the relevant accounting action taken.
52. For 2008-09, the number and value of discrepancies reported through the census checks has increased significantly compared to previous years. The levels of returns made and discrepancies noted for each census of the MAESTRO and MERLIN equipment are provided below:

Year	% census complete	Maestro net discrepancies	Merlin net discrepancies	Total value of discrepancies
2009	Maestro-85%; Merlin- 85%	£721m	£356m	£1077m
2008	Maestro-100%; Merlin- 91%	£5m	£391m	£396m
2007	Maestro-100%; Merlin- 98%	£176m	£82m	£258m

53. The increase in reported discrepancies indicates that the data in the MEFAR is not accurate or complete and that the corresponding asset values included in the financial statements may be misstated. However where assets have been passed between units there may be offsetting surpluses and deficiencies.

Action by the Department

54. The Department is reviewing the latest MERLIN/MAESTRO census report and will carry out further work to establish the causes of the growing discrepancies noted and decide what further action is necessary. Causes are thought to include:

- new codes for a large quantity of equipment have been introduced in the past year and at the time of the Census these had not been removed from MAESTRO, although the Department has informed me that the majority of these have now been removed, and
- a wide range of equipment has been moved to operational units without the relevant changes being recorded on MAESTRO. However, with the low level of returns from operational units, surpluses which might have offset the deficiencies noted elsewhere are not known.

55. The Department has recognised that in part the issues raised arise from the management and timing of their census as well as the current operational tempo of front line units and they have taken steps to improve their procedures as follows, by;

- changing the timing of the MERLIN and MAESTRO census to allow units to be hastened on a more regular basis during the census process to ensure that their returns are completed and included in the annual report;
- improving the cleansing of unit details on MAESTRO to ensure that all units included in the next Census are 'live' and are correctly addressed;
- continuing to invest in new integrated logistic information systems which will initially support and eventually replace the census requirement.

Weaknesses in the management of Bowman communications equipment

56. BOWMAN is a tactical communications system integrating digital voice and data technology to provide secure radio, intercom and tactical internet services in a modular and fully integrated system. The net book value of BOWMAN assets recorded in the Department's Resource Accounts for 2008-09 is £1.3 billion which relates to approximately 35,800 radio sets and associated cabling and other equipment. Examination of the Department's fixed asset records by my staff identified that the entries in respect of Bowman communication equipment were not fully supported.

57. The monitoring, tracking and accounting for Bowman assets has proved difficult for the Department for a number of reasons, most significantly:

- DE&S, the users (chiefly the Army, but also the other Services) and the provider have different systems for recording Bowman equipment;

- to manage operational needs a Whole Fleet Management approach has been taken so that radios are swapped extensively, sometimes in-theatre, without all procedures necessarily being followed. Discrepancies can therefore not always be investigated;
- the planned information system to support BOWMAN was withdrawn in 2005 as it was considered too expensive and not sufficiently flexible for the high volume of transactions that would be necessary to maintain visibility;
- the reported population of radios recorded on the various systems shifts and a stable population is therefore not available with significant quantities of equipment in transit at any moment in time, and
- equipment was initially issued without NATO stock numbers (NSNs), without which the equipment was not able to be properly recorded on existing reporting systems;

58. As a result of the above, existing reporting systems have only been able to accurately report on the existence and location of between 80-97% of expected numbers of BOWMAN radios and associated equipment. By the year end it was only possible, on the basis of their most realistic estimate, to confirm the existence of approximately 89% of the Bowman assets believed to be in service. At this level some £155m of such assets reported in the Departmental Financial Statements could not be accounted for. The Department estimates that at 31 March 2009 a significant element of these were in the repair loop.

59. The actual number and value of BOWMAN assets in service at 31 March 2009 is uncertain because:

- information originally provided by the Bowman project team on the value and volume of BOWMAN assets issued has been revised several times;
- the most likely estimate of the level of visibility requires information from a number of sources and includes further estimates;
- the data on BOWMAN assets has not been revised to take account of items which have been destroyed or impaired. At least £2 million of equipment is believed to have been destroyed but authoritative documentation to support this estimate is unavailable; and
- not all BOWMAN assets issued were included within the MEFAR further restricting the Department's ability to track and monitor these assets. Following my review, some 5000 Bowman radio sets with an estimated value of £178 million have now been recorded on the MEFAR.

60. This is important as accurate information is needed to obtain a complete picture of where radios are, to ensure the most effective deployment and to ensure that modifications to, and updating of, hardware and software are carried out efficiently and comprehensively so that effective communications can be maintained.

61. During my staff's review of the management and control of BOWMAN assets, a number of other weaknesses were identified in financial control and management information, most significantly:

- the contract did not require the contractor to provide for good quality data and regular management information required to account for the BOWMAN assets issued. For example, it can be difficult to distinguish between items repaired and re-issued and those being issued as new equipment;
- the contractor maintains a supply of stocks and spares which were not included in the MEFAR at the year-end (estimated to be approximately 1400 radio sets valued at around £50 million);
- the MEFAR aggregates thousands of individual line items under 15 main items of account and does not hold serial numbers or up-to-date locations for the equipment issued. This hampers physical verification of the equipment;

- the Department's work has been focused on the high value equipment such as radio sets which are classified as 'P' class assets. There is also however some £200 million of other assets where the policy for tracking and accounting for them has not yet been decided; and
- the Department has not carried out impairment reviews of BOWMAN assets to identify any which may have been damaged and or unusable. As at 31 March 2009 the Department estimated that some 2000 radio sets were under repair at the year end.

Action by the Department

62. The Department has taken steps to address the issue of tracking, monitoring and accounting for BOWMAN assets. Actions taken include:

- establishment of a high level Asset Management Steering Group, including key stakeholders, to develop a programme to stabilise, consolidate, resolve and enact BOWMAN policy and process changes with the aim of developing and implementing an effective system for the management of Bowman equipment;
- HQ Land Forces will continue their major BOWMAN census across all Army units including those deployed on operations and issue better guidance and directions for BOWMAN asset management;
- Development and roll-out of the BOWMAN Asset and Configuration Management System (BACMS) and enhancement of the future JAMES¹² system along with a number of other initiatives which will enable serial number tracking and accounting for Bowman assets;
- introduction in 2008-09 of an asset tracking system called UNICOM Out of Barracks (OOB). This system has now been rolled out further so that there is improved tracking of Bowman assets in operational theatres;
- continuing with a full inventory census designed to identify all Bowman assets;
- establishing a dedicated asset manager role within the relevant DE&S project team and beginning an exercise to improve its record-keeping of assets owned by the Department but utilised by contractors at their own premises by arranging 'audit visits' to its prime contractor and its sub-contractors; and
- deployment of additional staff resources to the Bowman project team to expedite resolution of the issues identified.

63. The contractor has responded positively and has provided some management information as requested. Additional management information is also now being provided on a routine basis.

Recommendations for further action

64. I welcome the action already taken by the Department and note its future plans in respect of the areas of weakness highlighted in my and my predecessor's Reports. However, my audit has identified a number of areas of concern.

65. While the Department may have already instigated some of these actions, I detail below my recommendations for further improvements to the Department's procedures.

The military pay process

On ensuring that accurate data is held within the JPA system

- The Department should establish a task force to systematically correct pay and personnel records. There have been some improvements seen, and more are planned,

¹² Joint Asset Management and Engineering Solutions system

but a systematic cleansing exercise should be undertaken with clear targets for the required levels of accuracy to be obtained and deadlines for the completion of this work;

- Particular attention should be paid to ensuring that the Department can meet its statutory requirements for reporting to Parliament on Votes A manning levels;

On access to the JPA system

- A formal review should be undertaken of the existing levels of access to the JPA system and whether they are sufficient to allow the processes to be operated as intended. Where access is insufficient, alternative arrangements should be introduced;
- The ability of the Department's main IT platform to support the JPA system going forward should be reconsidered in light of the other applications which are also dependent on this IT platform;

On military pay process controls:

- The Department should complete the review of controls begun last year to identify those that are key and to consider if further controls are needed. This review should take account of the need to reduce the level of error and fraud in relation to basic pay, allowances and expenses to an acceptable level and should ensure that there is a proper balance between preventative and detective controls. More specifically:
 - consideration should be given to activating the JPA system's capacity to allow line managers to see each expense claim at the time it is input. Whilst they would not be required to authorise the claim, this would provide visibility of the claims being made and would provide an early alert on incorrect or ineligible claims;
 - as recommended in my predecessor's report, the Department should revisit the level of payments above which a manual check is made. The current level is all net payments over a set limit of £10,000;
 - the monthly 5% check on expenses should be reviewed in order to determine whether there needs to be an increase in the % level of checks;
 - the data mining techniques currently being developed should be considered for wider use by budget holders to assist in targeting their checks on the amounts with most risk which are being charged to their budgets;
- the Department should introduce a more formal system to monitor the effectiveness of preventative and detective controls and a mechanism to enable enhancement of training and/or controls in areas where errors are being identified;
- reporting of allegations of fraud and misuse of JPA and any underlying trends as well as the subsequent outcomes should be enhanced and formalised;
- the responsibilities of all parties, for example the TLBs, should be clear and agreed, and
- the adequacy of resources available should be reassessed in the light of the evolving control environment;

On the provision of management information

- the management information available should be reviewed to ensure it meets the requirements of all stakeholders including budget holders on whom the Department is relying for checks on outturn most notably the TLBs;

On achieving the JPA vision:

- the Department should revisit the timetable for harmonisation of pay and allowances to ensure the results are achievable and consistent with its ability to amend the JPA system to cope with the resultant changes;

- Service Personnel have a wide range of abilities, education and needs. The Department should consider the range of support needed both at the existing call centre and in Units is sufficient to ensure Service personnel receive their entitlements;
- the Department needs to begin its assessment on whether to upgrade to Oracle 12 and make the necessary preparations to review the current extensions to the COTS product or make provision for further maintenance costs from 2012 onwards;

Inventory management

- the Department should analyse the reasons for the increasing discrepancies in stock counts and introduce appropriate additional controls to ensure that stock systems are sufficiently robust and efficient to support operational requirements, ensure efficient stock management and provide sufficiently accurate information for financial reporting requirements;
- a review should be carried out to confirm and clarify ownership of systems and to identify ways to ensure existing systems and any new systems are comprehensive and meet the identified needs of key stakeholders;
- a review should be carried out to examine the interfaces between the various stock systems, including the MEFAR, to ensure that an appropriate programme of reconciliations is conducted which will confirm the completeness of records and the robustness of data underpinning the figures in the Department's Resource Accounts;
- all stakeholders including the FAPC should be consulted as part of these reviews and before any major changes to the current systems are introduced, and
- where there are significant changes in key experienced personnel whether due to rationalisation or other factors, the Department should put in place strategies which support knowledge and skills transfer;

Assets accounted for using the MERLIN/MAESTRO systems

- the Department should complete the census exercise and investigate surpluses and deficiencies to ensure that its records can be updated;
- review the timing of the census exercise and consider if it could be carried out more effectively to allow the Department time to be able to investigate any reported deficiencies and for these to be reflected in the financial statements.

BOWMAN communications equipment

- the stocktake of BOWMAN equipment should be completed to establish as accurate a record as possible and missing equipment should be formally written off;
- procedures should be developed to recognise the different types of equipment to enable more effective asset management;
- working with the Army and their contractor, the Department should review the procedures for accounting for BOWMAN assets including purchases, issues, assets in the repair loop, losses, write-offs and assets in transit. These procedures should be designed to provide the robust management information required for operational deployment, stewardship and financial reporting;
- establishing the levels of visibility required using an effective management information system and mapping out how to achieve this with appropriate allocation of responsibilities and deadlines;
- as costs have not been updated since 2006, the Unit Production Cost (UPC) of each BOWMAN asset should be reviewed to ensure that the value of BOWMAN assets reported in the Department's Resource Accounts is materially correct; and

More widely:

- the Department should ensure that no further equipment is issued without Nato Stock Numbers, where this is the key identifier to enable effective management of the assets, and
- the Department should review other key equipment lines to ensure that the bespoke inventory systems provide adequate records to support operational, stewardship and financial reporting requirements.

66. I shall continue to work with the Department as it seeks to resolve the significant problems it is experiencing with the implementation of the JPA system and its inventory management systems and will provide an update on the progress made in my Report on the 2009-10 Resource Accounts.

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Comptroller and Auditor General
15 July 2009

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