DEFENCE ENVIRONMENT AND SAFETY REPORT

2003-2004

CONTENTS

FOREWORD

This is the fifth Annual Report to the Defence Environment and Safety Board. Last year, the Report was risk-based for the first time and in my Foreword I commented that this is not only a natural function of Safety Management generally but also a Corporate Governance obligation. In June 2003, the Department published JSP525 - Corporate Governance and Risk Management and this year's report is based upon its requirements. The result is different to last year. Most obviously, risks are better and more consistently described and their 'temperature' can be measured from their likelihood and impacts. The risk tables declare ownership for the first time and this noticeably concentrated minds during drafting! More subtly, the declared risks total has fallen and the remainder are more strategic in flavour. Indeed, there is clear evidence that Boards have embraced the ethos of Corporate Governance, that it is influencing their safety management systems and that they are stirring to its implications. Most subtly of all, they have realised that their systems will be to little avail unless the innate understanding of safety management streams downward until a 'safety culture' permeates the entire organisation. Thereafter, there will be the duty of perpetuating that state of organisational maturity. As a start, Boards appear to be asking to what extent this underpinning safety culture already exists: the answer is sometimes disappointing but at least sets an important objective for the years ahead.

A core of risks and concerns is carried over from last year's report. Emerging legislation, control of contractors and income generation are prominent in risk registers and progress has been made in each area in the past year. In my own Directorate, I have strengthened tracking of emerging legislation and relationships with legislators and also developed, with HSE, new exemption powers for the Secretary of State. The comprehensive study into control of contractors will report in mid-2004 and we have issued safety and environmental protection guidance for income generation in both a Defence Council Instruction and the Health and Safety Manual. A précis will be included in the briefing pack issued by the newly-appointed Selling Into Wider Markets Officer. The state of our infrastructure remains an issue for many and, if upgrading is not an option, then restricting its use in order to control the risks will be inevitable. There is a gathering concern over on- and off-duty travel safety and the Army has championed measures that have significantly reduced fatalities. Learning lessons from accidents, incidents and Boards of Inquiry is hindered by extant reporting methods and this too has been addressed by an Army trial procedure and through new work in my Directorate on the development of a comprehensive new incident reporting information system (IRIS), disseminating Inquiry findings and tracking recommendations. Safety in procurement affects everyone and the ASEMS initiative, whereby DLO and DPA are creating a joint project safety management system, is clearly an important advance.

Throughout this compendium of reports, Boards have once again reported comprehensively and been frank and unabashed in recounting failures - I am grateful for this enlightened view. The compendium is the annual exposition of the Department's immense Safety effort and it is important to ask whether this energy is being directed in appropriate directions. Do we have a strategic, long-term assessment of our risks and, above all, of the effectiveness of our collective controls? I was not convinced that we had and so on 01 January the Claims Branch amalgamated with my Directorate, DSEFPol, to form The Directorate of Safety and Claims (DS&C). Within this, I have formed a Risk Cell to address the risk-incident-claims-review cycle. The synergy from this fusion amplified by its close relationship with the duty holders and safety boards will, I believe, produce improved results in the years ahead. Further enhancements to the effectiveness of our control system are being considered as part of an ongoing Safety Review, sponsored by 2nd PUS.

Dr G Hooper
Chief Environment and Safety Officer (MOD) 17 June 2004

PART 1 - SAFETY AND ENVIRONMENT AUDIT REPORT

SHEF AUDIT

Audit Methodology

Following the introduction of the revised set of system requirements in the April 03 version of the SHEF Audit Manual, a full year of audits to the new system has been completed. In general, individual TLB/Agency Audit Authorities are content with the new system requirements and do not wish to see any major changes to the Audit Manual in FY04/05. In late Autumn 04, the SHEF Audit Board will meet to consider any changes to the Audit Manual for inclusion in the April 05 amendment.

TLB/Agency Audit Results

Results of audits completed by DSEFPol/DS&C during FY03/04 are summarised below:

TLB	Evaluation Rating
2SL/CNH	81%
GOC NI	95%
CTLB	71%

Control of Contractors Study

This has been a major piece of work during the year. A draft report has been produced which features the following key findings:

- There are weaknesses in the management of contracts. Primarily this is due to a combination of: the way that contracts are worded; how they are applied and managed; the level of understanding amongst commercial managers regarding a site owner's duties and responsibilities and also a general lack of dialogue between those involved in managing the process.

- The implementation of the MOD's policy on Control of Contractors (the '4Cs' policy) varies widely from site to site and is often failing to deliver the necessary level of safety assurance. The causes include: the level of commitment of senior management; the type of contract in place; the amount of resources available, in terms of money and staff; and the level of understanding of risk, posed by the contracts themselves. The 4Cs policy itself is sound.

Once agreed by key stakeholders, the detailed report will be issued widely within the Department.

DLO Environment and Safety Audit

As mentioned in last year's report, the scope of the audit of DLO was widened to include all aspects of safety (equipment, nuclear, explosives, supply etc), rather than just SHEF. Though problems were experienced in applying the standard SHEF system requirements to the wider safety community, it did identify some strengths and weaknesses with the DLO Environment and Safety Management System.

An audit debrief was provided to CDL in February, by which time a number of the recommendations and observations had been overtaken by the revised management

systems in place, and several more will be overtaken when the joint DPA/DLO Acquisition Environment and Safety Management System is implemented.

High Level Auditor Courses

Three courses for SHEF auditors were run during the reporting year, to explore ways to incorporate risk-based auditing, based on corporate governance principles, into the existing SHEF audit system.

Future Developments

In order to further explore the options for risk-based auditing, a conference has been organised for Autumn 04, aimed at SHEF advisers and auditors. It is also intended to include, as part of individual TLB/Agency SHEF audits, an analysis of the Risk Tables prepared for the Annual DESB report.

Following two studies into Boards of Inquiry into Fatalities and Serious Injuries, recommendations which will be taken forward by DS&C are: a databases to record BoI reports and recommendations; a system to analyse the recommendations and to pass on lessons learnt; an audit/assurance process to ensure that BoI recommendations have been completed or accepted as risks. These recommendations closely mirror current work in progress to record audit reports and pass on lessons learnt from audit recommendations. It is therefore intended to combine the two systems as far as possible.

Where environment and safety management systems are sufficiently developed, pan-safety auditing will be included in TLB/Agency audits.

PART 2 - REPORTS FROM DUTY HOLDERS

THE ARMY

OVERVIEW

This annual report, submitted by the Army Environment and Safety Board (AESB) has been constructed against the objectives and targets detailed within the Army Annual Safety Health Environment and Fire (SHEF) Action Plan for Financial Year 2003/04. Within the Army, SHEF issues are part of an overall integrated management system and quarterly reporting, against these objectives, is undertaken within the Balanced Scorecard Application. Significant risks are included within the Army Risk Register and Matrix. The AESB, chaired by COS LAND Command and supported by a structure of functional sub-committees, has focused chain of command attention on the major issues and risks detailed in Table 1 below.

Operational tempo has remained high and preparations for deployments and subsequent roulements has been demanding. Resources, both financial and human, have been directed to meet the operational imperative, sometimes at the expense of mundane but vital improvements to facilities at the home base. In the main Army safety and environmental systems are compliant and, where assessment, review and audit have identified hazards and shortcomings, mitigation measures have been introduced to manage real and potential risks actively.

Military training is undertaken within the structure provided by the Safe System of Training consisting of four separate elements. Hazards are assessed and the consequent controls integrated at the highest level into formal procedures to reduce risks as low as reasonably practicable within the constraints imposed by the operational imperative. The elements of safe persons, safe equipment, safe practice and safe places are under constant review by the Standing Committee on Training Safety (Army) (SCOTS(A)), also chaired by COS LAND Command.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Condition of the built Estate and funding for Category A1 Works. Stringent legislation places greater pressure on available Propman funding priorities. Overall approximately 50% of assets not statutorily compliant. **Effect**: This leads to unsafe working places and accommodation, and the potential for accidents, injuries and diseases together with subsequent litigation from claimants. **Likelihood**: Very High **Impact**: Failure to sustain the moral component and meet the objectives set out in the Army Annual SHEF Action Plan. **Risk Category:** Legal, Statutory, Safety, Environment, Personnel, Compensation.	Very High	Tasking of AIO and TLBs to conduct formal risk assessments where they are unable to undertake statutory and mandatory work.	Director AIO and TLBs

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 2. Control of Contractors. Changes to the delivery of property maintenance and projects with the introduction of Regional Prime Contracting and other PPP/PFI contracts place additional supervisory responsibilities on CO/HofE. **Effect:** The investigation of accidents and incidents indicates that, although the supervisory safety task has been contracted, the responsibility and risk has remained with the CO/HoE and MoD. **Likelihood:** High **Impact:** Although tasks are contracted, safety and environmental responsibility remains with the CO/HoE. **Risk Category:** Safety, Environment, Personnel, Compensation.	High	Action being taken within PFI/PPP initiatives to identify and clarify hazards risks and responsibilities. DS&C is undertaking a high level audit to assess and monitor situation.	CESO(A), Director AIO and TLBs.
Risk 3. Road Traffic Accidents on and off duty. Previously high levels of RTAs both on and off duty RTAs have begun to show reductions during 2003. **Effect:** Human and financial costs of on and off duty RTAs represent about 30% of Army fatalities and a significant value of third party claims settled on behalf of the Army. **Likelihood:** High **Impact:** Continued high levels of RTAs divert resources away from other activities. **Risk Category:** Personnel, Safety, Compensation.	Medium	Action in accordance with the Army Wheeled Driver Training Study and other initiatives aimed towards reducing RTAs.	Driving Standards and Transport Management Committee and TLBs.
Risk 4. Impact of Emerging Vibration and Working at Height Legislation. Inability to assess emerging legislation and influence Ministerial and Departmental decisions. **Effect:** The lack of opportunity to influence UK drafters could adversely impact upon the Army if implications of legislation are not fully examined. **Likelihood:** High. **Impact:** Failure to take the opportunity to influence emerging legislation will place the Army at a disadvantage in the pursuit of the operational imperative. **Risk Category:** Safety, Environment, Legal, Personnel.	Medium	CESO(A) maintains membership of sub-committees within DS&C and LSSB structures to provide Army impact statements.	CESO(A)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 5. Environmental Impact of the Attack Helicopter. High Level Environmental Appraisal for conversion to role training for the Attack Helicopter at Wattisham, Dishforth and associated training areas. **Effect:** The introduction of the Attack Helicopter will affect the environment and the communities over which training is undertaken. **Likelihood:** Medium. **Impact:** Failure to comply with the Environmental Impact Assessments, required by the SofS, could lead to a delay in the introduction to service of the Attack Helicopter. **Risk Category:** Environment, Reputation.	High	Project Group established to identify key environmental concerns prior to conversion to role training. Although risk impact remains high in respect of live firing, night flying and Special Protection Areas, considerable success has been achieved at regional and site specific levels.	DComd JHC
Risk 6. SHEF Advice to unit Commanders. Expansion of safety and environmental legislative requirements and threat from litigation, amid increasing operational tempo, are all adding pressure on CO/HofE **Effect:** Current provision of competent safety advice at unit level judged to be inadequate. **Likelihood:** Medium. **Impact**: The lack of professional SHEF advice to the CO/HoE leaves them exposed. **Risk Category:** Safety, Environment, Personnel, Reputation, Compensation.	Medium	Paper endorsed by AESB to initiate establishment of stand-alone Unit Safety and Environment Advisors (USEA) in deployable units. Requirement incorporated within the LAND Unit Rear Party Structures Study and passed to DASD. Validation confirms requirement of 65 Grade D MSF personnel at an annual cost of £1.4M.	DASD
Risk 7. Notification of Accidents and Injuries. Inability within the Army to establish a comprehensive assessment of accidents and injuries due to poor reporting and completion of the Central Health and Safety Project (CHASP) procedures. **Effect:** Likely to affect Army's ability to achieve Governmental targets for reduction in deaths and injuries at work by 2010. Poor reporting also affecting ability to prevent similar accidents reoccurring and to reduce associated claims costs for lack of recorded evidence. **Likelihood:** Medium. **Impact:** Failure to establish a comprehensive and manageable database restricts the opportunities to introduce successful mitigation measures to reduce accidents and incidents and subsequent compensation. **Risk Category:** Safety, Personnel, Environment, Legal, Compensation.	Medium	Establishment of Army Incident Notification Cell (AINC) on two-year trial from 1 Apr 03 has shown a dramatic improvement in capture and manipulation of information and causation of accidents and incidents. The AINC trial has been utilised to help construct a business case in respect of a MoD Incident Recording and Information System (IRIS) to replace CHASP.	CESO(A)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 8. Funding for Legacy Land Equipment Safety Cases. Lack of funding for Safety Cases in respect of all legacy equipment is preventing compliance required by current legislation. **Effect:** The lack of a coherent and complete Safety Case could impact on the provision of safe training available for specific equipment. **Likelihood:** Medium. **Impact:** Safety, Personnel, Compensation.	Medium	Based upon ES(Land) D Tech assessment there are residual risks to 174 items of equipment and 8 items are embargoed from use. Environmental issues are also addressed with Equipment Capability Managers and the DPA.	EASG and ES(Land) DLO
Risk 9. Inadequate MoD Guidance on Income Generation. Lack of high level guidance continues to expose commanders at all levels **Effect:** Potential litigation and adverse publicity in the event of accident. **Likelihood:** Medium. **Impact:** Failure to protect MoD personnel from potential litigation and prosecution. **Risk Category:** Legal, Personnel, Budgetary.	Medium	COS LAND as Chairman of AESB has issued interim guidance to all TLBs, awaiting outcome of MoD examination of policy framework	AESB

MAJOR RISKS

Condition of the Built Estate. The condition of the built estate continues to deteriorate due to a lack of funding to support property maintenance. Compensation payments for last year included a sum of £1.3M paid to a Serviceman following an injury sustained falling down poorly maintained steps. One isolated case of Legionnaires Disease and the discovery of bacteria in another location highlighted the risks associated with poor maintenance and inadequate contractual arrangements In addition to any civil action taken criminal proceedings could be taken where those responsible are deemed to have been negligent in their stewardship of the estate.

Control of Contractors. Work undertaken for the Army by a contractor is covered by contract and good practice stipulates that safety and environmental requirements are written into the contract. However, because health and safety responsibilities are defined by criminal law they cannot be passed on from the Army to the contractor. The following problems are currently being experienced:

- Confusion with the provision of SHEF advice to CO/HoE following the introduction of Regional Prime Contracting (RPC) in Scotland and other PFI and PPP projects. There is an increasing lack of consultation, communication and co-ordination between Defence Estates (DE) and CO/HoE, which compounds risks associated with poor contractor performance.

- The new Control of Asbestos at Work Regulations 2002 have highlighted inadequacies with contractor maintained of Asbestos Registers and some contractors have experienced problems with obtaining third party liability insurance to conduct remedial work deemed necessary by the Regulations.

- Possible Crown Censure following the fatality of a Serviceman during the unloading of Armoured Fighting Vehicles (AFV) at Teesport and the death of five civilians following a RTA on the M1 Motorway involving the same contractor a week later.

- Possible Environment Agency (EA) Enforcement Order following the discharge of raw sewage at Dale Barracks, Chester where the contractor is contesting the condition of the facilities transferred and their subsequent responsibilities under Project Aquatrine.

Road Traffic Accidents on and off Duty. Army road traffic accident (RTA) fatalities have been reduced from 44 in 2002 to 30 2003 and although well within the target reduction of 4% year on year between 2000 and 2005, set by the Army Annual SHEF Action Plan, are still regarded as being too many. However, RTA medical discharges have continued at a high level with the combined total of fatalities and discharges reaching 70 per 100,000. It is anticipated that discharge statistics will improve as accident rates, both on and off duty, continue to fall.

PERFORMANCE

Revitalising Health and Safety. Objectives and measures to meet Government targets for Revitalising Health and Safety were included for the first time in the Army Annual SHEF Action Plan 2003/04 for Service personnel. Requirements were to reduce fatalities and serious injuries by 10%, and reduce working days lost due to work-related illness or injury by 30%. The reductions are to be made by 2110 against an agreed baseline of 2000. Fatalities in 2003 by all causations, are one below the target of 75 per 100,000 at 74. Figures for medical discharges are currently only available for 2002 where totals against the baseline have seen a reduction but the statistical incident rate has seen a marginal increase to 301 per 100,000 and is well above the target of 255.

Accident Fatalities 2003. Accident and training fatalities for 2003 are detailed in Table 2 below.

Table 2:

	2002	2003	Remarks for 2003
Accident Fatalities	58	42	
On duty accidents	5	7	Includes 4 on Op Telic
Off duty accidents	7	5	
Training accidents	2	0	
RTAs on duty	9	8	Includes 4 on Op Telic
RTAs off duty	35	22	
Overall Fatalities	58	65	Includes 23 killed in action during Op Telic
(Details provided by D/DPS(A) 84/1/2)			

Operational and Training Incidents: A total of 23 personnel were killed in action during 2003 on Operation Telic in Iraq. There were no training fatalities in preparation for operations.

Undetermined Deaths. Although not included in the above details, the AESB, in the acceptance of its duty of care towards all personnel, noted that there were 17 undetermined deaths during 2003 amongst Service Personnel, compared with 16 in 2002.
Trends in Accidents and Incidents: Overall objectives and targets included within the Annual Action Plan have been met, except where highlighted in this report, and accident and incident trends appear to continue in a downward direction and remain better than the closest comparable commercial enterprises of construction, agriculture and forestry.

Pollution Incidents: The Army suffered a reportable pollution incident at Dale Barracks, Chester where a poorly maintained sewerage pipe fractured allowing raw sewage to flood waste land adjacent to a railway line. Prompt action taken by 42 Brigade SHEF and Estates staff avoided the need for the EA to serve an Enforcement Order on the CO/HoE and the MoD. However, subsequent disagreements between Project Aquatrine contractors (Brey), DE and 42 Brigade have led to a current impasse which could eventually lead to enforcement action by the EA. A further incident at the Sea Mounting Centre at Marchwood, caused by poor maintenance of an interceptor, affecting an area of Southampton Water, is being investigated.

Impact of Equipment on the Environment. Currently all new Land Systems equipment, that enter Army use, are subjected to Sustainable Development (SD) environmental scrutiny in accordance with the SD Strategy formulated by the Army Strategic Environment Steering Group (SESG). However, the increasing scope and scale of SD requirements, partly highlighted by the cost of £581K for the AH Environmental Sustainability Project, is proving difficult to resource

Health and Safety Executive and Environment Agency Enforcement:

Crown Censures: There were no Crown Censures served.

Crown Prohibition Notices: There were no Crown Prohibition Notices served.

Crown Improvement Notices: A Crown Improvement Notice (CIN) was served on the CO of Gibraltar Barracks, Minley in respect of an isolated case of Legionnaires Disease. This CIN had Army and MoD implications and AEO and DE have taken action throughout the Estate. The HSE was impressed with the way in which the Army had responded and confirmed that the requirements imposed by the CIN had been satisfactorily discharged.

Environmental Management Systems Implementation: Almost 70% of the Army Estate have Environmental Management Systems in place and the Action Plan target of 65% implementation exceeded.

PROGRESS & SUCCESSES

SHEF Management: With new appointees as Chief of the General Staff (CGS) and CinC LAND the opportunity has been taken to issue respective Safety and Environmental Protection Statements which reflected their personal determination to keep relevant issues within sharp higher level management focus. This approach has been cascaded throughout the chain of command for the benefit of all Service and Civilian staff.

Army Annual SHEF Action Plan. The Army Annual Action Plan published by the Chairman of the AESB set demanding but achievable targets at the beginning of May 03. Objectives and targets were reviewed quarterly and reports incorporated within Staff Action Tables and the Balance Scorecard Application in order to maintain focus and momentum.

Army Incident Notification Cell. Undoubtedly the most demanding initiative has been the establishment of the Army Incident Notification Cell (AINC) and the development of a trial within 4th Division of Regional Forces, recently expanded to include 5th Division and all training areas world-wide. Early indications suggest a significant improvement in the causation capture of accidents and incidents. The trial has informed a comprehensive business case to 2nd PUS for the introduction of a MoD Incident Reporting Information System (IRIS).

AUDIT RESULTS

In line with DS&C policy, audits were conducted as follows:

Organisation Audited	Evaluation Rating
Adjutant General TLB and drill down to BLB level	90%
Army Cadet Forces	Not graded but satisfactory
Headquarters Northern Ireland TLB and drill down to BLB level	94%
5th Division HLB and drill down to BLB level	85%

ASSURANCE ASSESSMENT

Responsibility for the management of safety and environmental issues has been delegated to the AESB, which reviews all safety and environmental risks on a six-monthly basis to support quarterly reports through the Balanced Scorecard Application. Risk assessments are undertaken to provide a Safe System of Training to support individual and collective training and exercises in preparations for operations. Advice is available to all Service and Civilian staff through the structure of Regional Forces but responsibility is delegated to the Chain of Command and Line Management. CGS and the DESB can be assured that a robust organisation and detailed arrangements are in place throughout the Army for the management of H&S and EP in accordance with MOD policy set by the Secretary of State for Defence.

PRIORITIES FOR 2004-2005

Safety and Environmental Culture. In his direction for the Strategy for Delivering Future Capability within the Balanced Scorecard Application, CGS has reminded commanders at all levels of their obligations under SHEF legislation. He has delegated the responsibility for implementation to CinC LAND Command, who has included objectives within his Command Directive, which are formulated by the AESB and executed throughout the Army as a whole. Commanders will take all practical and reasonable steps to secure these objectives. This will ensure that SHEF management, and a proactive safety culture, is enshrined within Army processes and procedures. However, additional SHEF advisors, based within Regional Forces, will be necessary to support this approach and some limited recruitment undertaken.

Army Annual SHEF Action Plan 2004/05. Having reviewed Army SHEF Risks, COS LAND Command, in his capacity as the Chairman AESB, issued the 2004/05 Action Plan for implementation throughout the Army; details are available on the LANDweb.

Environmental Management Systems. The implementation of EMS throughout the Regular Army Estate will be completed and its structure subsequently reviewed and audited by CESO(A).

Sustainable Development in Government. Strategies to support SDiG will be developed by the SESG and Army Utilities Management Board (AUMB) and objectives and targets set for implementation throughout the Army. However, steps need to be taken to identify and recognise the financial resources to meet this growing SD requirement, at the highest level.

Memorandum of Understanding (MOU) with the Health and Safety Executive. Preliminary work undertaken during 2003/04, between CESO(A) and the HSE Defence, Fire and Police Unit has been concluded and will be expanded into the HSE Regions. This will improve and forge regulatory relationships and capitalise on the Health and Safety Commission's new Strategy to focus resources, promote greater employee involvement, and provide simpler and clearer information and advice. It is intended to place this MOU in the revised JSP 375 as part of the Army's Organisation and Arrangements.

THE ROYAL NAVY

OVERVIEW

The NS Safety and Environmental Performance Report 2003/2004 is a summary report based on a series of inputs produced by key stakeholders who manage or influence safety and environmental protection across the NS, relating to the safe delivery of Operational Capability (OC); RN and RM service, civilian and contractor personnel health and safety; RN platform, equipment and facilities safety; and the protection of the natural environment.

AIM

The aim of this report is to:

- provide CNS and the Navy Board with an overview of the key safety and environmental management issues arising during the period 1 April 2003 to 31March 2004.
- provide assurance that appropriate action is being taken to manage safety and environment risks.
- identify additional areas of risk which require management attention.
- provide the NS input to the CESO(MOD) sponsored Defence Environment and Safety Board (DESB) Report.

MAJOR RISKS AND ISSUES

The process for managing safety and environmental management risks and issues has been integrated into the 2SL/CNH and Fleet Corporate Risk and Issues management processes. The Fleet Safety Management Group (FSMG) is responsible for progressing these.

The FSMG is progressing all of the risks and issues identified by the key stakeholders, including those detailed in last year's report.

The FSMG manage risks at a 1* level up to a threshold defined by the Fleet Corporate Risk scoring system. Risks with a high impact but very low likelihood are managed below this level. Risk scorings above the pre-determined 1* level threshold are elevated to 2* attention. The NSSEMB will evaluate the risks and determine the requirement for onward transmission to the Navy Board and the DESB for action. The top ten highest level risks being managed by the FSMG are identified as two composite risks in table 1 below for information.

Table 1: Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Health and Safety Legislation Compliance. Potential impact on O/C from future UK, EU and International legislation. **Effect**: • H&S legislation likely to impact on	Medium	* RN derogation from regulations sought to minimise impact on OC. (Where derogation's have been granted, RN will ensure spirit of the legislation is met in accordance with S of S Policy Statement Request additional funds or divert	Owner: COS(Spt) Manager: CESO(RN)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
platform and equipment design requirements and operating procedures. • RN open to Health and Safety Executive Crown Censure action. • RN open to personal injury or ill-health compensation claims if legislation not complied with. • Adverse publicity. Not possible to initially estimate costs so taken 'at risk' at early stages. **Likelihood**: Medium **Impact:** RN open to Crown Censure and compensation claims if Legislation not complied with. OC compromised. This is a composite risk comprising the following Fleet Risks: E 22-03 - Noise at Work Regulations (NAWR) 1989. E 24-03 - EU Physical Agents (Vibration) Directive 2002. E 34-03 - Personal Injury Claims Compensation. E 57-03 - EU Physical Agents (Noise) Directive 2002. E 01-04 - The Work at Height Regulations 2004. E 02-04 – EU Physical Agents (EM Radn) Directive **Risk category**: Legal and Regulatory, Budgetary, Liability, Operational, Health and Safety, Reputation,		funding from other Fleet areas to implement legislation on a 'case-by-case' basis. Maintain a close relationship with all stakeholders. Mitigation is taken by maintaining sufficient SQEP personnel to manage the judgement of "reasonably practicable" measures. Fleet membership of Defence Environment and Safety Board and it's supporting Functional Safety Boards ensures a top level focus of the risk. Future legislation monitored by CESO(RN) via the DS&C Legislation Sub-Committee to the Focal Points.	
Risk 2 Environment Protection Legislation. OC may be affected by restrictions on the movement of RN vessels and equipment that do not comply with future UK, European and International environment protection legislation. **Effect:** • Environmental protection legislation likely to impact on platform and equipment design requirements and operating procedures. • RN open to UK, European or International regulatory action. • RN compensation claims if legislation not complied with. • RN open to moral and legal challenges by Non-Government Organisations. • Adverse publicity. • Not possible to estimate costs at early stages, so initially taken 'at risk'. **Likelihood:** Medium **Impact:** RN open to regularity action and compensation claims if Legislation	Medium	* RN derogation from regulations sought to minimise impact on OC. (Where derogation's have been granted, RN will ensure spirit of the legislation is met in accordance with S of S Policy Statement. Request additional funds or divert funding from other Fleet areas to implement legislation on a 'case-by-case' basis. Maintain a close relationship with all stakeholders. Mitigation is taken by maintaining sufficient SQEP personnel to manage the judgement of "reasonably practicable" measures. Fleet membership of Defence Environment and Safety Board and its supporting Functional Safety Boards ensures a top-level focus of the risk. Future legislation monitored by CESO(RN) via the DS&C Legislation Sub-Committee to the Focal Points.	**Owner:** COS(Spt) **Manager:** CESO(RN)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
not complied with. OC compromised This is a composite risk comprising the following Fleet Risks: E 14-03 - Biological Environmental Control E 15-03 - Ballast Water Management. E 23-03 - Marine Environmental Impact Assessments (EIA). E 33-03 - EU Marine Strategy. E 40-03 - Marine Habitat Legislation. **Risk category**: Legal and Regulatory, Budgetary, Liability, Operational, Health and Safety, Reputation,			

* Derogation is a target; however, an alternative approach would be, where appropriate, to cancel the RN exemption from UK Merchant Ship safety legislation with an aim to have RN and RFA Ships in commission operating under a common code.

Issues

Central Health And Safety Project (CHASP)

The under-use of the MOD Accident Reporting System CHASP remains a weakness and measures are in place to encourage full and proper use of CHASP. To this end a Business Case has been produced by CESO(RN) for the introduction of a NS Incident Notification Cell to improve accuracy and reporting of incidents and analysis of these data. Complete and accurate reporting of incidents underpins the NS Accident and Ill Health Reduction Strategy to ensure resources are targeted in the most effective way. The Business Case has been accepted by Senior Management and efforts are being taken to identify an appropriate resource.

Proposed Environmental Information Regulations (EIR) 2004

The proposed EIR 2004 will amend the public's current legal right of access to environmental information. This, along with the implementation of the Freedom of Information Act 2000, will impose strict requirements to respond to requests for information on the RN. Compliance is required of all authorities from 01 Jan 05. Failure to comply would result in high-profile damage to the reputation of the NS for effective management and democratic accountability. This is a MOD wide problem with DG Information taking the lead.

In terms of compliance and long-term governance, ACNS exercises oversight as the Naval Service's Chief Information Management Officer. CINCFLEET and 2SL-CNH have set up the Naval Service FOI Co-ordination Cell, and a joint TLB Steering Group is closely monitoring progress towards compliance.

Control Of Contractors

With increasing partnering and contractorisation under the Warship Modernisation Initiative (WSMI), Commanding Officers of ships are particularly vulnerable under the duty of care and may be liable for contractor's activities whilst onboard. The FSMO is producing guidance on this issue. It is also seen as an issue across the MOD.

Clearance Divers Breathing Apparatus (CDBA) Training

Clearance Diver's individual skill fade due to inability to train with CDBA. The future priority is to rectify the ongoing CDBA OPDEF and restore CDBA diving.

PERFORMANCE

Table 2: Fatalities 2003/04

Fatalities	2003/2004	Remarks
On duty	3	**2** RN Pilot and civilian fitter died whilst participating in Air display. **1** A Navy Diver died using SABA.
Off duty	1	A Marine Engineering Mechanic died from injuries sustained when he fell from a private boat.
Operational	1	RM Cpl of the SBS died in OP TELIC.
Training	0	
RTAs on duty RTAs off duty	1 7	
Natural Causes	7	This figure includes **2** Carcinoma, **2** Heart defects, **1** Terminal Illness, **1** Malignant Melanoma and **1** suspected accident or natural cause.
No Cause held on record.	9	Yet to be determined whether on or off duty.
Suicide/Suspicious circumstance	4	Yet to be determined whether on or off duty.

Trends in Accidents and Incidents

During the reporting period the following major/serious accident statistics were reported on the CHASP database in accordance with the MOD Accident Reporting System JSP 442.

Table 3: TLB Major/Serious Injuries

TLB	Major	Serious
CinCFLEET	10	42
2SL/CNH	6	29
Total	16	71

The NS accident rate has shown a slight increase in comparison with last year's statistics. However, based upon the National Audit Office (NAO) estimation that only 40% of all MOD accidents are reported, the quality of statistical data is variable and as a result, it is not possible to put a high level of confidence in these figures. In support of this statement there were 62 accidents reported on CHASP with the actual severity being recorded as unknown.

HSE/EA Enforcement:

Crown Censures:

There were no Crown Censures served during the reporting period up to 31 Mar 04. However, the HSE are continuing an investigation into 3 incidents; one at RM Poole where two civilians were injured, a fatality at Lympstone Commando Training Centre and fatality at

the Diving School. The HSE have advised that they are considering serving Crown Censures.

Crown Improvement Notices:

There were no Crown Improvement Notices during this reporting period.

Crown Prohibition Notices:

There were no Crown Prohibition Notices during this reporting period.

Environment Management:

Land Based Pollution Incidents

No Significant Land Based Pollution Incidents have been reported during the reporting period compared with 2 incidents last year.

Marine Pollution Incidents for RN Ships and Submarines

There have been 51 pollution incidents involving the discharge from Fleet units of either liquid or gaseous pollutants to the environment over the reporting period. These incidents ranged between 0.5 litres and 2000 litres, significantly the greatest number of incidents were less than 10 litres. The largest fuel or oil spillage and the greatest losses of Montreal Protocol Gases of 433.6 Kg of R22 and 132 Kg's of BTM 1301 were as a result of equipment failure. Overall these reported incidents represent an increase of 15% compared with last year.

Marine Pollution Incidents for RFA Ships

There have been 10 pollution incidents involving oil discharge to the environment from RFA Vessels ranging from 1 litre to 300 litres. This represents no increase on last year.

Marine Pollution Prevention

Fleet HQ assesses individual POLREPS to identify shortfalls in pollution prevention management and equipment. Action is taken where practicable to incorporate these lessons learnt in pollution prevention management and this is verified through the audit process.

Environmental Agency-MOD Memorandum of Understanding (MOU)

Work continues under the auspices of the MOD/EA Liaison Committee to develop a series of Annexes to the MOU (which was agreed Jul 01) detailing specific regulatory functions and detailed operating procedures. A draft MOU has been issued for comment and included in the revised draft of JSP 418 Volume 1 Chapter 4. CESO(RN) represents NS interests.

Land Quality Assessments (LQAs)

Desktop LQAs for CinCFLEET are complete. Further phases of the LQA process are ongoing. There are no locations with hazards that pose an immediate significant risk to human health or of unacceptable damage to the environment.

Desktop LQAs have been completed for all 2SL/CNH Establishments. Further phases of the LQA process are ongoing. 2SL/CNH Establishments pose a low risk to the environment with minor land quality issues.

Navy Sector Non-Operational Utilities

Following the success in meeting the targets for the first two years of the current nine-year campaign to reduce consumption of non-operational utilities, indications are that this year's 3% target may be missed. This is primarily due to financial restrictions preventing spend to save measures from being taken. Many No/ Low cost measures have already been implemented and to maintain ongoing improvements will require significant capital funding. The NS have been successful in placing a contract to meet the Government's Target for the procurement of 6% 'green' electricity for 2003/2004.

Due to Project Aquatrine going live 01 December 2003, Brey Utilities (the selected service provider) are now responsible for the metering and supply of water up to building boundaries. Figures for the NS performance to be supplied by Brey Utilities are unavailable at present and will be so for many months.

Nature Conservation

Sites of Special Scientific Interest (SSSIs) across the Naval Sector estate currently already comply with governments 2006 and 2010 targets for favourable /improving condition. English Nature will continue to assess these sites and current efforts must continue to ensure the standard of NS SSSIs does not drop below current standards. Some Non SSSI NS sites continue to operate Nature Conservation Committees on a voluntary basis.

PROGRESS & SUCCESSES

Safety and Environment Management is integrated into the Fleet Corporate Management System.

The Fleet Safety Management Group (FSMG) met three times during the reporting period with the remit to monitor/progress all safety and environment management risks and issues and to formulate the requirements for submission of the Navy Sector Safety and Environment Management Performance annual report.

Not all audits of NS establishments and vessels achieved a Category B assessment in accordance with the MOD SHEF PI. This is a progressive target, with the audit result very much determined by the establishment or vessel. The continuing programme of audits and advisory visits will continue to raise awareness and provide an input to the NS Accident and Ill-health Reduction Strategy.

The continued drive to integrate Safety, Health, Environment and Fire (SHEF) management systems across the NS by revising BR 9147 - Navy Sector Safety and Environment Management System in conjunction with the functional area leads has resulted in a complete revision to BR9147 and a new issue 2 has been developed based upon the elements of JSP 375 two volume format and the structure of the OHSAS 18001 publication, which is compatible with the requirements of the ISO 14001 and HS(G)65.
The recommendations contained in the D SEF Pol CINCFLEET SHEF Audit Report have been completed to the satisfaction of DS&C Head of Audit.

The Accident Response Organisation (ARO) Operations Manual FSMO/02/02 has been amended and reissued incorporating the Lessons Identified during the response to the HMS Nottingham grounding in Australia and the recommendations from the WSA sponsored DIA Audit of Contingency Plans for Emergency Overseas Repairs and additionally incorporates detail of Business Continuity (BC) should the CinCFLEET HQ not be fully operational.

The development of a bespoke Senior Officers health, safety and risk management course[1] within the RFA, has allowed those charged with higher management responsibilities to appreciate their role under legislative and MOD Health and Safety requirements. At least one other Commercial Company, Cunard, has viewed this course with a view to providing its personnel with similar instruction.

Maintaining coverage of Regional SHEF advice and audit within Land Ops Units/establishments with 2 of the 3 RSHEFA posts gapped. These posts have now been filled.

The transfer of Release to Service documentation to web-based media is markedly improving the availability of critical information to the Naval Aviation Front Line.

HMS TIRELESS – ICEX 04. Safety case for HMS TIRELESS arctic deployment completed by SUB IPT with peer review by STG. Amended EOP for flooding and propulsion casualties adopted for period under ice 1 – 20 Apr 04

AUTEC 04. Safety case produced for combined STINGRAY and SPEARFISH firings involving HMS MONMOUTH and HMS SCEPTRE

Significant improvement in Command Awareness of Diving safety throughout the Fleet. Introduction of Diving Standards Check (DSC) and individual standards checks. Liaison with HSE.

Funding has been obtained to replace inferior Multifab suits with immersion suits for all boats crews, thus reducing the risk of hypothermia.

Impact of Electronic Charting systems (interim system fielded in 50+ platforms ahead of Warship Electronic Chart Display and Information System (WECDIS)) having perceived increases in spatial awareness and overall safety.

AUDIT RESULTS

The NS SHEF Management system continues to be subjected to programmed internal audits and advisory visits across the Functional/Management areas, to ascertain that adequate risk control systems are in place and that all relevant legislation and MOD Policy is being adhered to. Where "below satisfactory" standards have been identified at units/establishments, action/management plans have been developed to correct the deficiencies found. Full details of the number of audit/inspections conducted throughout the NS are contained within the Functional/Management area inputs.

Table 4: Summary of Audits

Organisation	Type of Audit/Inspection	Evaluation Rating
RN Ships	49 advisory visits against 69 in 02/03 40 audits against 42 in 02/03	Most achieved satisfactory. Notably Grafton and Sovereign achieved very good
RFAs	11 audited against 12 in 02/03 8 RFAs audited by MCA and verified continuing validity of Safety Management Certificate – same as previous year	Ranged from one below satisfactory to very good.

[1] Known as SMSA on Magellan

Organisation	Type of Audit/Inspection	Evaluation Rating
Land	11 audits against 5 in 02/03 in spite of 2 man shortfall	2 Achieved Category A (Very Good) 4 Achieved Category B (Good) 3 Achieved Category C (Satisfactory) 2 Achieved Category D (Below Satisfactory)
Diving	Under newly introduced system 27 diving standards checks achieved. Full Safety Case achieved for SABA and CDBA	The audit checks have assured satisfactory diving standards have been achieved.
Explosives	54 audits completed	All satisfactory
Aviation	19 standards and practices achieved 11 visits by naval flying standards flight	The audits have assured satisfactory standards have been achieved.
2SL/CNH	D SEF Pol TLB audit in 2003	Category B – 81% (Good)

ASSURANCE ASSESSMENT

The aim of the NSSEMS is to provide management arrangements in order to ensure an acceptable balance is maintained between the operational capability and the risks to safety and the environment. This assurance has been adequately met during the reporting period by means of the NS SEMS having been subjected to internal audit and inspection on a number of occasions.

The compliance with Legislative requirements and implementing Government and MOD safety and environment management policies has been achieved during the reporting period and it has been a pro-active and productive year for Safety and Environment Management at all levels across the NS. However, the organisation cannot be complacent and the continuing drive to integrate NS SHEF management systems needs to be maintained.

PRIORITIES FOR 2004-2005

- Establish and test the Accident Response Organisation (ARO) in the New Fleet HQ and update the ARO Operations Manual FSMO/02/02 to incorporate the Lessons Identified. Target date 14 October 2004.

- Fully implement the agreed integrated strategy to minimise the number of accidents, incidents, ill health and resulting in personal injury claims. This is being managed by the FSMG. Target date 01 May 2005.

- To complement NS Incident Notification Cell Focal Point post into FSMO to ensure comprehensive and accurate data recording, analysis and assistance to Commanding Officers by merging the Fleet and 2SL/CNH Safety and Environment Offices. Target date 01 April 2005.

- To address the Clearance Diver's individual skill fade due to inability to train with CDBA. Target date 01May 2005.

THE ROYAL AIR FORCE

OVERVIEW

The SofS has delegated overall responsibility for safety within the RAF to the Chief of the Air Staff (CAS) and has instructed him to delegate further as necessary. CINC STC and PTC have full command and personal responsibility for safety within their respective commands. Additionally, CAS has charged CINC PTC with lead responsibility for all RAF SHEF assurance and guidance within the workplace; he in turn has delegated routine management of SHEF assurance and guidance to AOA. This is a specialist task requiring competent trained advisers with responsibility for promoting safety and environmental management, developing policy and gaining assurance for health & safety and environmental protection within the RAF; this rests with the Chief Environment and Safety Officer (CESO(RAF)). Fire safety policy rests with CINC STC and is provided by the Chief Fire Officer (RAF). Other specialist advisers exist on most RAF stations to advise and provide assurance to station commanders. In addition to providing safety support to the RAF, CESO(RAF)) also provides support to some operational theatres in accordance with a customer supplier agreement with Chief of Joint Operations.

Currently the RAF is undertaking a major review of its high-level processes and organisation within both STC and PTC. Safety has been identified as a specific strand of work, with the aim of strengthening the safety governance processes within the RAF. This will be reported next year.

Within the RAF SHEF risks are captured through our corporate governance processes and are in the table below.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Change management The failure to address SHEF issues as an integral part of the strategic change management process affecting RAF policy, programmes, projects and new training activities. E.g. DTR & Cosford, St Athan, ASSP, MAC Contracts, Wider Markets, Aquatrine, Prime Contracting etc. **Effect:** Possible increase in accidents/incidents, increased litigation/claims and loss of reputation. **Likelihood:** High **Impact:** F. Planning and Finance. L. People – Valuing Our people and our Community. N. Strategic Change Initiatives.	Medium	Conduct a sustainability appraisal of policy, programmes, projects and new training activities. The adoption of Corporate Governance principles throughout the MOD/RAF will improve the systems of internal control.	Owner: AFBSC Manager: AFBSC & TLBs

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk category: Legal & Regulatory, Environmental, Budgetary, Liability, Reputation, Health & safety.	Medium High		
Risk 2. SHEF Delegation and Responsibilities. Individuals are unclear as to the full extent of their SHEF delegated roles and responsibilities. **Effect:** Increased accidents/incidents. Increased litigation/claims and loss of reputation. **Likelihood:** High **Impact:** F. Planning and finance. K. People-Training. L. People valuing Our people and Our community. **Risk Category:** Legal and regulatory, Environmental Budgetary, Liability, Reputation, Health and safety**.**	Medium Medium Medium	CESO(RAF) are working with D S&C to provide advice on the SHEF employer/ landlord/ person in control of premises delegation and responsibility. CESO(RAF) is carrying out an analysis of SHEF training courses.	Owner: AFBSC Manager: AOA/CESO(RAF)
Risk 3. Accidents/Incidents/ Boards of Inquiry. Failure to learn and communicate lessons from accidents/incidents at work. **Effect:** Repetition of accidents/incidents, increased costs and loss of reputation. **Likelihood:** Medium **Impact**: F. Planning and Finance. L. People – Valuing Our People and Our Community. **Risk Category:** Legal and Regulatory, Environmental, Budgetary, Liability, Reputation, Health and Safety.	Medium Medium	CESO(RAF) are contributing to the development of the MOD's new accident and claims database IRIS. CESO(RAF) have also been involved in the staffing process looking at the Boards of Inquiry and lessons learned process.	Owner: AFBSC Manager: AOA/CESO(RAF)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 4. Legislation. The inability to effectively identify, track and influence emerging SHEF related legislation. **Effect:** The possibility of future non-compliance, unforeseen costs, litigation, loss of reputation, loss of capability. **Likelihood:** Medium **Impact:** B. Military capability. F. Planning and Finance. L. Valuing our people and our Community. **Risk category**: Legal and regulatory, Environmental, Budgetary, Liability, Reputation, Health and safety.	 Low Medium Low	Work is ongoing to develop the MOD's legislation database. CESO(RAF) are working on building significant SHEF issues/risks into the management planning process and linking into the management board process through the RAF's Process Organisation Review (POR).	<u>Owner</u>: AFBSC <u>Manager</u>: AOA/CESO(RAF)
Risk 5. Government targets. The implementation of Government Targets and the RAF's ability to strategically manage meeting the targets (e.g. Sustainable Development). **Effect:** Unforeseen costs (carbon emissions) Loss of reputation. **Likelihood:** Medium **Impact:** F. Planning and Finance. K. Training. L. People- Valuing our people and community. **Risk category:** Environmental, Budgetary, Reputation.	 High Medium Low	CESO(RAF) are in the process of setting up a RAF Sustainable Development Management Group to address this risk.	<u>Owner</u> AFBSC <u>Manager</u>: Currently AOA /CESO(RAF) but will be the RAF Sustainable Development Management Group.

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 6. Operations (Out of Area). Inadequate SHEF guidance for RAF Commanders and servicemen on out of area operations. **Effect:** Possible increase in accidents/incidents and risk of litigation/claims. **Likelihood:** Medium. **Impact:** F. Planning and Finance. L. People – Valuing Our people and Our Community. **Risk category**: Environmental, Legal, Budgetary, Liability, Reputation, Health and safety.	 Medium High	CESO (RAF) have an agreement with Chief Joint Operations (CJO) to provide Out Of Area SHEF advice on request to RAF areas of operations. CESO(RAF) visit Basrah - March 04.	<u>Owners:</u> AFBSC/CJO/Out of area operational commanders. <u>Managers</u>. AOA/CESO(RAF)
Risk 7. United States Visiting Forces. The Management of MOD UK civilians under line management of USVF. Differences between US and UK Health and Safety legislation and management systems. **Effect:** Possible increase in the accidents/increased litigation/claims and loss of reputation. **Likelihood:** Medium. **Impact:** D. Defence Diplomacy. F. Planning and Finance. L. People – Valuing Our people and our Community **Risk category:** Legal and Regulatory, Budgetary Liability, Reputation, Health and safety.	 Medium Medium Medium	CESO(RAF) are working with the 3rd Air Force, Health and safety executive and Trades Unions to resolve these issues using the US/UK Review Committee as the forum.	<u>Owners;</u> AFBSC/3rd AF <u>Managers</u> AOA/CESO(RAF) / 3rd AF

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 8. Land Quality. Incomplete information on the extent of land contamination of the RAF estates from legacy issues. **Effect:** Bad publicity, possible litigation, assessment and remediation costs. **Likelihood**: Medium **Impact:** F. Planning and Finance. L. Valuing our people and Community. K. People – Training. **Risk category:** Legal and Regulatory, Environmental, Budgetary, Liability, Reputation, Health and safety.	 Medium Medium Low	 Continuation of the Land Quality Assessment programme. Continue to work with the Regulatory Authorities in accordance with the MOU on land contamination/remediation.	 <u>Owner:</u> AFBSC. <u>Manager:</u> AOA/D RAF Infra

Change Management/SHEF Delegation and Responsibilities

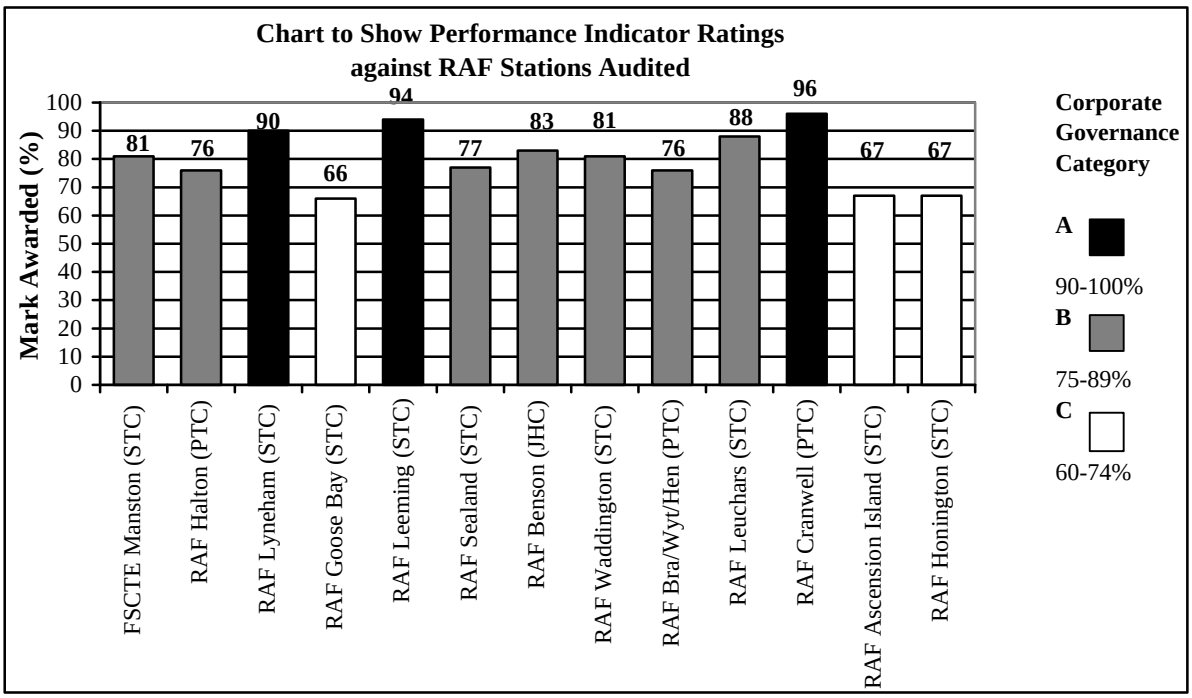
The RAF top two risks reflect the considerable strategic changes within the MOD and indeed the RAF, both within the infrastructure, processing and output requirement areas over the reporting period and for the foreseeable future. The new processes and organisations are in their infancy and have resulted in changes to management responsibilities and delegations. The formation of specialist staffs with the necessary skills required to support the new organisations and processes is proving difficult to manage and could result in the inability to provide SHEF assurance. The difficulties and time taken to put in place coherent management reporting systems on a suitable IT platform is hampering progress and increases the risk of failure in control and management.

PERFORMANCE

SHEF assurance and performance is provided through the results of the triennial SHEF audit programme conducted by CESO(RAF). Other indicators included below are: fatalities, accidents, incidents, and enforcement action taken by regulatory authorities and finally progress against MOD targets.

Audit Results:

Unit audit results were as follows:



The audit programme for FY 03/04 was agreed at the RAF SHEF committee held on 2 Apr 03, and encompassed a total of 13 units which represents approximately 33% of all RAF units. During the past 12 months, all of the planned audits have taken place. The overall rating for units audited ranged from 66% to 96%. All but 3 units achieved or exceeded the RAF SHEF Committee target/minimum indicator of Category B (75 – 89%) i.e. *"Control systems found to be largely compliant. A small number of important lapses found or some "fine tuning" across the board required. Concentrated action on specific problems required"*. CESO (RAF) has arranged early follow-up visits for these 3 Units, in addition, action plans have been raised and additional assistance has been offered to support these units and track progress.

Fatalities: Off duty road traffic accidents continue to be a significant proportion of the fatality rate. Some analysis will be undertaken to determine how many of the off-duty deaths were caused on long journeys from place of duty to home, as there may be an opportunity to reduce the risk for these journeys by encouraging other methods of travel or adjusting shift times to take account.

Table 2: Fatalities

Fatalities	Remarks
1	Road Traffic Accidents On Duty:
8	Road Traffic Accidents Off Duty:
	Non-Natural Deaths (Includes suspected self inflicted) Others and Undetermined:
1	- On Duty
6	- Off Duty.
0	Fatalities due to Flying Accidents:
	Natural causes:
2	- On Duty
12	- Off Duty.
30	Total Fatalities

Accidents and Incidents: Between April 03 and January 04 1,589 incidents were reported on CHASP, this figure includes all incidents and HSE reportable. The RAF fatality and accident rates are below that of industry, but they still incur a direct cost to the MOD budget, whether the injury is on or off duty, and they divert money away from our operational imperative.

Trends in Accidents and Incidents: The total number of incidents for STC/PTC have again reduced since the last reporting period by 12% and the number of HSE reportable incidents have reduced by 14%. Trend analysis using the accident/incident rates has highlighted slips, trips and falls and manual handling injuries for the Civilian Industrial population. CESO RAF staffs are raising awareness in these areas for STC and PTC Civilian Industrial employees.

Pollution Incidents: In February 2003, a fuel spill occurred at Catherine Point Petroleum Supply Depot at RAF Ascension Island, whereby 380,000 litres of F35 Avtur leaked into the containment bund. To date, an investigation of the incident has been undertaken and the necessary corrective actions are being implemented to prevent reoccurrence.

During the reporting period, the RAF suffered two fuel spills that required external assistance from Briggs Environmental, both of which took place at RAF Brize Norton. The first incident involved 500 litres of AVTUR F34, caused by a mechanical failure. The spill was contained within the station boundary and Briggs Environmental were called in to assist in the cleanup. The problem has since been rectified and stricter monthly inspection procedures are in place. The second incident at RAF Brize Norton involved 9000 litres of AVTUR F34 lost during the transfer from a BFI to a fuel bowser. Fuel discharged directly into the BFI interceptor, unfortunately the interceptor breached and the fuel entered controlled waters on site. Fast deployment of the Station Spill Plan prevented any fuel from leaving the site and Briggs Environmental have assisted the cleanup/remediation. The Environment Agency has since visited the Station and is content with the stations' response. A major investigation revealed that a combination of operational and engineering errors was the cause and corrective actions have been put in place.

HSE/EA Enforcement Action:

- Crown Prohibition Notices – There were no Crown Prohibition Notices served.
- Crown Improvement Notices – There were no Crown Improvement Notices served.
- Environment Agency Enforcement Notices - The Scottish Environmental Protection Agency (SEPA) have served enforcement notices on each of RAF Kinloss' 5 surface water out-falls that flow into the Findhorn Bay. The station has a project underway to divert the existing out-falls from the Findhorn Bay to the Burghead Bay via a reed bed system; SEPA are content with this action.

RAF Cosford breached a discharge consent due to raised ammonia levels following a mechanical failure of sewage treatment filter beds, however, the Environment Agency have been content with the remedial work and no further action has been taken.

Progress against MOD targets:

EMS Implementation: This year, approximately 81% of RAF Stations have fully implemented the essential elements of the MOD EMS. Progress is being monitored through the RAF SHEF Committee and CESO (RAF) staff are assisting those stations that have not yet fully implemented the MOD EMS.

4c'S Implementation: To date, 57% of Stations have 80-100% of the 4Cs system in place. However, due to some staff problems and changes in contractual arrangements i.e. Multi Activity Contracts and Public Private Partnership Initiatives, this has delayed full implementation of the 4Cs system across the RAF. This issue is being addressed and should improve by the next reporting period.

Safety and Environment Training: During the reporting year (as at Feb 04), the following numbers of RAF civilian and service personnel were trained at Specialist Training Wing RAF Halton:

	Health & Safety (RAF Halton Courses)	**Environmental Protection (RAF Halton Courses)**
Number of RAF service personnel attended	1050	356
Number of civilian personnel (approximate)	107	107

Land Quality Assessment (LQA) Progress: As part of the RAF on-going 4 year rolling programme to cover the RAF estate, the Land Quality Assessment team have completed 6 Phase One LQA and a further 5 are still ongoing.

Radiation Protection (RP): There is usually public interest in any activities that involve radiation sources. Following a radiation safety incident at RAF Coningsby early in 2002, the Environment Agency took a closer look MOD's radiation safety processes. In light of this, we have decided to report on the RAF performance in radiation safety management.

The RAF currently has 42 Radiation Safety Officers, a roughly equal mix of Civilian and Service personnel. There are 400 Radiation Protection Supervisors who are involved in various RP work such as accounting, storage and transport, of radioactive materials, dental and medical work, non-destructive testing radiography and security X-ray equipment.

RP Training: General radiation protection information is provided at basic trade training. Specific training for radiation safety personnel is provided by the Institute of Naval Medicine (INM), Alverstoke. This financial year the following numbers of RAF civilian and service personnel were trained at the INM:

INM Training Course	**Number Trained**
Radiation Safety Officer	19
Radiation Protection Supervisor (General)	17
Radiation Protection Supervisor (X-ray user)	0
Radiation Protection Supervisor (Minor Sources)	82

Further courses were run on RAF Stations by Dstl Radiation Protection Services (DRPS)

DRPS on Site Training Course	**Number Trained**
Radiation Protection Supervisor (Minor Sources)	23
Radiation Safety Role Awareness Force Protection Centre (STOC)	25

CESO(RAF) has sponsored specific Non Ionising Radiation Training carried out by TUV Ltd, as follows:

Non Ionising Radiation Training	Number Trained
Radiation Protection Supervisor (Radio frequency)	57

DRPS Advisory Visits: The DRPS provide the statutory corporate radiation protection advisory service for the RAF. CESO(RAF) has tasked the DRPS with carrying out a 2 yearly rolling programme of RP advisory visits to all RAF bases. This year the DRPS have visited 25 main RAF bases the following is a summary of their findings:

Overall Finding	Number of Stations
Generally Good	2
Satisfactory	3
Generally Satisfactory with Specific Areas which need attention	14
Less than Satisfactory	6

A robust management system has been introduced to raise the overall performance of the RAF RP arrangements. All non-compliance observations raised by an advisory visit report has resulted in a letter from CESO(RAF) to the Station Commander requesting the production of a Station Action Plan to resolve the situation. The progress of the Action plan is monitored by CESO (RAF) staff to identify common themes or resourcing issues.

PROGRESS & SUCCESSES

Sustainable Development in Government: One of the priorities identified for 03/04 was to continue to raise awareness and develop strategies to meet Government Sustainable Development targets. It is accepted that management of the RAF Estate has considerable potential to contribute to the Government's objectives and targets for sustainable development. The newly formed RAF Sustainable Development Management Group (SDMG) will take the lead for the RAF in developing RAF/TLB response to delivering the MOD Sustainable Development Strategy in support of the Sustainable Development in Government Initiative (SDIG).

Sustainable Development Targets (Travel): The SDIG Travel Target (Target B1) has been set against a baseline year of 2002/2003, that by 31 March 2006 to reduce road transport carbon dioxide vehicle emissions by at least 10%. The RAF has now put in place data collection processes in order to determine the baseline in support of the SDIG targets for Travel. This has established that during FY 02/03, total business miles have increased by approximately 9 million. This could be due to a combination of Operation TELIC and the cost of public transport/infrastructure. However, fuel efficiency of the white fleet has achieved an 8.3% reduction in fuel consumption and we would expect this figure to increase with the replacement of older leased fleet vehicles with modern fuel-efficient models.

Sustainable Development Targets (Office Waste Recycling): Although DEFRA targets with respect to waste data have not yet been issued, the RAF has put a data collection system in place in readiness. From the data collated so far, the RAF can report that 87.4% of solid waste from RAF Stations is currently being landfilled. However to help reduce the burden on landfill sites and in support of the National Waste Strategy/MOD policy, recycling initiatives have been put in place and the RAF can report that during the first quarter of 2003, 8.92% of solid waste was recycled.

Sustainable Development Targets (Utility Management): Since its inception in Jul 02 the RAF Bureau Service provides energy management advice across the RAF estate through the automatic reading of sub meters and main gate revenue electricity meters. In all, data is being captured from some 1000 sub meters on 16 of the highest consuming RAF stations to indicate inefficiency and waste. In order to provide effective reporting of consumption, the Bureau Service is working in partnership with the Carbon Trust towards the development of an appropriate reporting regime to aid Managers in reducing energy consumption. Although official consumption figures are not yet available for 03/04, the RAF reduced consumption in 02/03 by 11.6% over the 99/00 baseline. The target was 3%, however approximately 6% was due to the reallocation of assets, such as the closing of RAF Bruggen and RAF Odiham becoming the responsibility of the Army.
Significant effort has been expended on the European Emissions Trading Scheme (ETS), an EU scheme to reduce greenhouse gas emissions through carbon allocation permits and carbon trading initiatives. The RAF has identified a number of sites meeting the registration criteria and, to date, have registered 21 stations.

Key Achievements:

Initiatives: Many RAF Stations participated in the European Week for Health & Safety 2003. This included the launch of a number of initiatives in support of the theme of preventing risks from dangerous substances at work. Including briefs to personnel from internal and external specialists, review of COSHH assessments and displays from both internal/external organisations.

Awards: RAF Lyneham won the regional award for their contribution to the European Week for Health & Safety 2003; RAF Spadeadam retained the Carlisle & Eden Business, Environment Network Gold Award; RAF Buchan retained the Scottish Health at Work Award (Gold); RAF Leuchars was awarded the RoSPA Gold Award.

ASSURANCE ASSESSMENT

SHEF assurance and performance is provided through the results of the triennial SHEF audit programme conducted by CESO(RAF). In line with the RAF priorities from 02/03, most audits have exceeded the RAF target of category B standard (75 to 80%). Thereby providing assurance to the RAF SHEF Committee and TLB Audit Boards of continual improvement in SHEF management performance. The total number of accidents/incidents for STC/PTC have again reduced since the last reporting period by 12% and the number of HSE reportable incidents have reduced by 14%. The RAF SHEF Committee continues to monitor the audit results/trend analysis and has agreed the 04/05 audit programme.

PRIORITIES FOR 2004-2005

SHEF Management: Continue to improve SHEF Management across the RAF, providing assurance through audits to at least Category B (80 to 90%) assessments.

In concert with DE, seek to complete a review and ensure SHEF governance is embedded in the future RAF HQ and comprehensive SHEF assurance in the implementation of Prime Contracting.

To support those units that have yet to fully implement the MOD Environmental Management System and 4Cs.

Sustainable Development/Government Targets: For the newly formed RAF Sustainable Development Management Group (SDMG) to define the RAF response for achieving the MOD Sustainable Development Strategy. To develop an action plan for meeting and

reporting progress for each of the sustainable development targets across the TLBs and to incorporate into management plans as appropriate.

United States Visiting Forces: Seek to harmonise remaining inconsistencies between the UK and USVF legislation and procedures in Health & Safety and Environmental Protection by March 05.

DEFENCE LOGISTICS ORGANISATION (DLO)

OVERVIEW

This report to the DESB summarises the individual environment and safety reports by Discipline Leads that address their respective roles and topical matters. They draw out specific issues and perceived risks to that discipline lead whilst also highlighting successes achieved during the reporting period. Most importantly they provide assurance of performance and identify priorities for the coming year.

Again this year the concept of 'lean reporting' across the Department has progressed further and the format for discipline leads, which has been specified by D S&C, is consistent across all MOD Functional Safety Boards.

This executive summary incorporates the TLB perspective. Key points are drawn out, but readers should refer to individual reports in the full 'DLO Environment and safety Report 2004' for more detailed information.

This has again been a busy year for the DLO Environment and Safety (E&S) community. Significant progress has been made in several areas but there is no room for complacency as the two Crown Improvement Notices indicate and much still remains to be done. Given the broad range of activities in which the DLO is engaged it is not surprising that there is great diversity in the issues, risks and successes reported from the Discipline Leads. There is evidence that progress is being made by Discipline Leads in adopting a pan-DLO perspective, something that is essential if CDL is to achieve the degree of assurance demanded by his Letters of Delegation (LOD) and Organisation and Arrangement (O&A) Statements. However, there still remains much to do to ensure that Environmental Management Systems (EMS) and Environmental Impact Assessments (EIA) are put in place and to ensure that that all discipline leads have adequately identified, and are effectively managing, all the interfaces. This becomes even more important as the TLB embarks on a programme of re-structuring and it is imperative that safety is not compromised during this period and that E&S aspects are adequately addressed at all stages.

The greater interest taken by the DLO Executive Board (DLOXB) and the DLO Audit Committee (DLOAC) in the management of E&S issues throughout the TLB is greatly welcomed. The development of a set of Key Performance Indicators (KPIs) gives the DLOXB visibility of the organisation's ability to comply with Secretary of State's E&S Policy Statement and CDL's published O&A statement. These are used to inform the quarterly E&S compliance report taken as a standing DLOXB agenda item.

RISKS

Table 1: Safety Risk Management - DLO TLB Top E&S Risks

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Environmental Impact Assessment (EIA) Failure to conduct Environmental Impact Assessments for new and in-service equipments. **Effect**: Possible claims, programme delays, operational restrictions. **Likelihood**: Medium **Impact**: DMB K3 SHEF. Each	Medium	Acquisition community introduce EIAs and Environmental Management Systems. DPA/DLO joint working to be addressed and resolved via DSES/CESO (DLO) lead. EP Awareness programme to educate and inform IPTs and staff, co-ordinated by DLO Environmental Awareness Committee. Requirement identified within the Support Solutions Envelope.	Owner: CDL Manager: IPTLs

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Service to meet Defence Policy requirements. **Risk category :** Environmental Financial		Targets for EIAs to be set and monitored through the DLO Equipment Safety Management Working Group.	
Risk 2: Major accident (personnel) Major accident involving personnel in buildings or facilities **Effect:** Death of or injury to 1st / 2nd / 3rd parties. Compensation payments, litigation, manpower deficit, increased costs and potential programme slippage. **Likelihood:** Medium **Impact:** DMB K3 - SHEF Each Service to meet Defence Policy requirements **Risk Category:** Legal & Regulatory Health & Safety	Medium	DLO wide investment in safety competencies for all staff. Legislative briefings in all Business Units pertinent to process and job roles. Effective management of contractors while on site through implementation of the MoD "4Cs" system.	Owner: CDL Manager L&P 2*s
Risk 3: Legislation Failure to interpret E&S legislation in a timely manner **Effect**: Reduction in operational capability experienced by Customer 2 due to the imposition of procedural mitigation strategies. **Likelihood:** Low **Impact:** DMB K3 - SHEF Each Service to meet Defence Policy requirements **Risk Category:** Legal & Regulatory Health & Safety Personnel	Medium	Ensure adequate resources both time and relevant skills. Improved visibility and awareness of forthcoming legislation across the DLO by adoption of CESO (MoD) Legislation database and alerts to all Focal Points. Development of a recruitment & retention strategy where shortcomings are related to lack of staff resources.	Owner: CDL Manager L&P 2*s
Risk 4 Selling into Wider Markets Failure to fully address environment & safety risks when Selling into Wider Markets. **Effect:** MoD involvement in inappropriate activities, with consequent dangers to MoD personnel and the wider public. MoD personnel being prosecuted. Litigation and associated compensation claims. **Likelihood:** Medium **Impact:** DMB K3 - SHEF Each Service to meet Defence Policy requirements	Medium	The issue has been elevated through the MoD SHEF Board. D S&C have agreed to produce a stand alone document re-enforcing the E&S implications to be considered when initiating SiWM initiatives. The Defence Wider Markets Policy Group have agreed to assist in the drafting of additional guidance and ensure it obtains maximum exposure through various outlets including their website and WMI Focal Points.	Owner: CDL Manager D S&C

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk Category: Legal & Regulatory Budgetary Operational Health & Safety Personnel			
Risk 5: Major accident (equipment) Major accident involving equipment attributable to a failing in the DLO Environment and Safety Management System. **Effect:** Loss of life, injury or disability to MoD staff or general public. Loss of or damage to civilian and/or military property and consequent detriment to MoD's reputation for safe operation of equipment and protector of the environment. Reduction in operational capability if equipment is withdrawn from service or restrictions imposed. **Likelihood:** Low **Impact:** DMB K3 - SHEF Each Service to meet Defence Policy requirements **Risk Category:** Act of God Legal & Regulatory Budgetary Policy Operational Information Reputational Technological Project Health & Safety Personnel	Medium	Development of equipment safety cases for all new and existing equipment/platforms in accordance with the DESM programme. Continual review of equipment safety management systems in the Business Units and IPTs. Regular review of the Support Solutions Envelope. Regular review of the AMS	Owner: CDL Manager L&P 2*s
Risk 6: Personnel Failure to recruit and retain suitably qualified and experienced E&S staff. **Effect:** Shortages of SQEP staff means that assurance auditing of the DLO safety Management System is inadequate. Assurance & provision of competent advice at Business Unit level is inadequate. **Likelihood:** Low **Impact:** DMB K3 - SHEF Each Service to meet Defence Policy requirements **Risk Category:**	Low	DSES/ESS to produce a Business Case considering Recruitment & retention Allowances for E&S staff across the DLO.	Owner: CDL Manager DSES/ESS

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Personnel			

Progress has continued in the identification of E&S risks to DLO outputs, and considerable effort has been expended ensuring that the ethos of Corporate Governance is embraced by the DLO E&S community. As can be seen from the individual reports many E&S risks have been, quite rightly, managed at the Business Unit or IPT level, with Discipline Leads consolidating risks at their level. DSES has taken this process a step further and produced an E&S high level risk register shown at Table 1 above. This consolidated high level risk register is used to inform the top "X" risk register which is presented to the DLOXB and to compile the quarterly return to the Defence Management Board (DMB). Again there is no room for complacency and much work is still required to ensure that discipline lead risk registers are complete and are kept under constant review. Processes have been put in place to review E&S risks at the Environment & Safety Management Steering Group (ESMSG) which meets at least six monthly. However in the DLO's desire to ensure that a culture of active risk management exists, DG Resources, the Board member with responsibility has called for an extraordinary ESMSG for the sole purpose of examining E&S risk management throughout the discipline leads. With this level of proactive management it is envisaged that appropriate prioritisation of E&S risks and the resourcing required to mitigate them will be achieved.

Environmental Impact Assessment. To date there has been a lack of policy or guidance to underpin the requirement in Secretary of State's E&S policy statement regarding the conduct of Environmental Impact Assessments (EIA). The main focus of equipment IPTs has been on the development of safety cases and this has been at the expense of EIA. To overcome this deficiency a joint Acquisition Safety and Environment Management System (ASEMS) is being developed with the DPA. Targets for the completion of EIA will be set and monitored at the six monthly DLO Equipment Safety Management Working Group (DESM WG) chaired by CESO (DLO).

Selling Into Wider Markets. Although this topic has been elevated through the MoD SHEF Board and is recognised as a departmental issue, very real concerns still exist. A document reinforcing the E&S implications to be considered when initiating Selling into Wider Markets (SiWM) initiatives is being produced by D S&C and will provide much needed guidance. The very nature of the DLO's business means that there is potential for many SiWM initiatives to be undertaken and the challenge therefore is to ensure that Commanding Officers and Heads of Establishments are fully aware of the implications of such actions and that commercial pressures do not override the legal Safety and Environmental aspects which could leave DLO personnel liable for prosecution.

Major Accident (Equipment). Safety case compilation for all new and existing equipments is monitored by the DESM WG which mitigates this risk to a great extent. However it must be remembered that a safety case is a live document and that in some cases risks are mitigated by the imposition of operating limitations. This is certainly the case with some Land equipments and again this year ES (Land) report that a lack of funds to implement design changes has resulted in Customer 2 having to be advised that it is unsafe to use some equipment without the imposition of procedural risk mitigation measures. This can lead to a loss of capability, which in turn can impact upon training and operational efficiency. ES (Land) also reports that there remain a number of unfunded Category B risk mitigations.

Major Accident (Personnel). The primary mitigation for this risk is provided via comprehensive and thorough SHE audit and verification reviews conducted by both HLB and TLB staff. It is equally essential, however, that senor management are fully engaged in promoting and enabling safe processes and practices, and awareness of this is achieved by regular in-house briefings. The DCSA have shown that there is a direct inverse correlation

between the number of managers attending awareness briefings and the number of accidents attributable to management failings, this they report as a PI. The audit verification review programme is reviewed regularly and reported as part of the KPIs to DLOXB on a quarterly basis.

Legislation. The failure to interpret E&S legislation in a timely manner features in several Discipline Lead risk registers. Dissemination of the D S&C legislation database across the DLO and the use of the forthcoming legislation Alert procedure has mitigated this risk to some extent. However, because of the timescales involved it will be several years before the department can start to become proactive rather than reactive in dealing with the E&S implications imposed by new and forthcoming legislation.

Personnel. Concerns still exist across the DLO regarding the lack of suitably qualified and experienced E&S staff. The initial study conducted by the TLB indicates, based on the returns provided by the Discipline Leads, that the problem is not as pronounced as was initially thought. Further study of the data collected for the Defence Safety & Environmental Management Study (the "Kerr" study) will enable a more definitive assessment to be made.

PERFORMANCE

HSE/EA Enforcement

Two HSE Crown Improvement Notices were served on the DLO and one related notice on a DLO contractor. The DLO notices are as a result of two accidents: the first an accident at Teesport, in which an Army NCO was fatally crushed between two Armoured Personnel Carriers during unloading from an Elliot Sargeant transporter during the Op Telic outload; the second a road traffic accident on the M1, where as a result of the accident 3 AFVs became detached from their transporter.

Environmental Management Systems

Although the EMS targets have been in place for some time, implementation has been very slow. DLO has failed to meet the Departmental target for compliance of 40% of the DLO estate by 31 March 2004. Rapid progress will need to be made if the next target of compliance of 80% of the DLO estate by 31 March 2006 is to be achieved. EMS work is much less advanced than expected due to reported lack of resources in HLBs and Units – this will need to be addressed as a matter of urgency.

PROGRESS & SUCCESSES

DCSA Discipline Lead. One of the key priorities identified for 03/04 was agreeing with the DCSA their role and responsibilities as a discipline lead for IT and Communication Applications and Services. The CE DCSA has recently accepted the recommendations made in DLOXB paper 12/03 proposing that the DCSA assume Discipline Lead status. Although some issues regarding the level of resource and the departmental responsibilities of the DCSA require clarification, these will be resolved by 1 July 04.

Legislation. The establishment of an effective means of disseminating information on forthcoming legislation throughout the department and the feedback of the assessed impact on Discipline Leads has been one of the successes this year. The DLO, in line with the rest of the department, also has a process of disseminating issues regarding Forthcoming

European Legislation. The challenge now is to improve the process and give all access to the database, whilst at the same time extending the scope to cover all legislation.

KPIs. Development of a set of KPIs, which assess the level of compliance with Secretary of State's E&S Policy Statement, has given the DLOXB visibility of the state of E&S compliance across the department. This has enabled progress to be monitored and provides a forum at the highest level for issues relating to E&S to be discussed and appropriate resourcing to be allocated.

Joint Working. Joint working with the DPA is progressing well under the auspices of DCDL and DPA DCE joint working initiatives. A principles paper has been signed by them and is being used as an example of best practice.

TLB Audit. The first ever E&S audit of a TLB was carried out by D SEF Pol in July 2003 and an Action plan to address shortcomings has been instigated. Although DLO restructuring means that some of the issues have been overtaken by events, progress against the plan will be monitored by DG Resources.

Studies. The issue of the most appropriate MoD functional Board for the Dangerous Goods and Hazardous Substances remains and it is envisaged that the Kerr study commissioned by the DESB will make recommendations on this subject.

A study throughout the DLO has been conducted on whether a lack of suitably qualified and experienced E&S personnel within the TLB is having an adverse effect on DLO outputs. Initial indications are that the problem is not as pronounced across the whole organisation as was originally thought; however further work is required to carry out more detailed analysis and comparisons with other parts of the department and Industry. It is intended to engage further with the DLO HQ HR Strat team to facilitate this.

Discipline Leads. Discipline Leads report several areas of success, more details of which are contained within individual reports; but some worthy of mention are:

- The successful trialling of equipments within the maritime sector to enable ships to comply with IMO legislation.
- The facility upgrade management at Devonport and the Project ISOLUS (Interim Storage of Laid-Up Submarines) progression.
- The formation of an in house Dangerous Goods Safety Advisor (DGSA) Inspectorate.
- The steady reduction in the actual number of Road Traffic Accidents (RTAs) within the DLO. This reflects the personal intervention of the DLO Master Driver who has visited 31 out of 51 DLO sites within the last year.
- 132 Licences to operate issued by the DFG.
- The growth of MOD rail freight which has more than doubled in the past 12 months.

Asbestos. Significant progress with asbestos elimination in all the equipment pillars of the DLO has continued. Improved interaction between discipline leads, the DPA and Front Line Commands (FLC) is a recurring theme demonstrated by all DLO E&S focal points, but there is still room for improvement.

OP TELIC. Above all the operational successes associated with OP TELIC reflect well on all within the DLO and are also indicative of the professionalism and flexibility of those within the E&S community.

ASSURANCE ASSESSMENT

Using the DIA Assurance Classifications there is **Substantial Assurance** across the DLO. Although the Safety Environmental Management System (SEMS) is in place and basically sound, the quarterly KPIs identify weaknesses which may be placing DLO outputs at risk.

PRIORITIES FOR 2004-2005

The following priorities have been identified for the year 04/05:-

- Lessons from the Crown Improvement notices served on the DLO to be identified and implemented.
- E&S compliance not to be compromised during restructuring of the DLO and CDL to continue to receive the assurance demanded by his O&A statement and Secretary of State's Policy statement.
- DCSA to be established as the Discipline Lead for IT and Communication Applications and Services.
- DPA/DLO Joint Working to be progressed and closer alignment of the E&S roles of both organisations to be achieved.
- Decision to be made on the most appropriate Functional Safety Board for the Dangerous Goods and Hazardous Stores Discipline Lead.
- Further progress to be made on the dissemination of Forthcoming Legislation across the TLB and all Discipline Leads to be given "live" access to the database.

DEFENCE PROCUREMENT AGENCY (DPA)

OVERVIEW

This report covers both DPA SHEF and Project E&S management activities for FY 2003/2004.

In addition to improving its site management and SHEF arrangements within DPA BLBs extensive work has been carried out to set in place business procedures to govern the management of safety and environmental issues in equipment programmes. The procedures form the Acquisition Safety and Environment Management System (ASEMS), will become DPA policy from July 2004.

Main works streams over the last 12 months have been

- Development of ASEMS and corporate business procedures.
- Deeper engagement with other agencies within the Department and other Departments.
- Extension of work on restricted materials and development of sustainable development initiatives.
- Develop benchmarking strategy
- Road Safety Awareness campaign
- Develop Spill Plan procedures for Abbey Wood
- Publish Abbey Wood Site EMS
- Intensify Audit programme to include off site personnel
- Improve awareness and enhance Local SHEF focal points competence.

RISKS

Table 1: Project E&S Management Risks

The following risk table relates to DPA management of equipment projects and has been complied from interviews with a number of IPTs and managers within the DPA.

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Risk 1. Failure to deliver safe and environmentally compliant equipment. Failure to deliver equipment that is legally compliant in all intended areas of operation and training, or which prevents such activities from complying with departmental policy and the law. **Effect:** Increased risk to staff, contractors and third parties. Requirement for greater operational mitigation possibly necessitating additional cost, considerable constraints upon training or operations of the Armed Forces. **Likelihood:** Medium. **Impact:** Loss of organisational reputation. Possible need for contract amendments and delay to project programme or ISD. Weakening of MOU's with regulators, reducing or eliminating the scope to self	High	Inclusion of E&S scrutiny in project performance review and assurance processes. Introduction of more coherent E&S business procedures (ASEMS).	Owner: ESMB Manager: Tech Dir

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
regulate. Unmitigated, maturing risks could cause Crown Censure action or legal action against, or by, staff or others working on behalf of the MOD, or third parties. Delayed ISD could cause capability or availability gaps leading to failure to discharge obligations. **Risk Category:** Legal and Regulatory, Health & Safety, Environmental, Operational, Reputation			
Risk 2. Impact upon DPA business of the Department's failure to effectively scope safety and environmental policy. Safety and Environmental Policy needs to recognise risks resulting from new technology, manufacturing processes, safety critical software, innovation brought about through SMART acquisition, procurement strategy or innovative contractor processes or proposals. Failure to recognise requirements arising from developments in legislation and policy (e.g. Freedom of Access to Information). **Effect:** Equipment programmes may not comply with E&S policy. 'SMART Acquisition' and the concepts within Departmental E&S Policy are disconnected. Key safety and environmental issues could remain or mitigated. Contractor led innovation in E&S management is constrained. Continuous improvement may be frustrated. Inability to identify sources of effective advice. **Likelihood:** Medium to High **Impact:** Inefficient or ineffective acquisition resulting in delays to projects or missed opportunities for innovation in safety and environmental management. Loss of goodwill from contractor. Reduced opportunities to collaborate with contractor to solve problems. Possible restrictions placed on projects and hence operational capability and availability. Loss of confidence in MOD ability to self regulate. Maturing risks from new techniques or technology can cause impacts as per Risk 1. **Risk Category:** Policy, Innovation, Operational, Reputation, Budgetary	Medium to High	Establishment of AESO to improve liaison and information exchange between the DPA and policy makers.	Owner: ESMB Manager: Tech Dir
Risk 3. Failure to effectively manage safety and environmental issues within the DPA. Insufficient communication, lack of understanding and insufficient resource. Insufficient treatment of through-life issues	Medium	Improved requirement scoping and review arrangements are being published through the ASEMS. Introduction of more coherent E&S business procedures	Owner: ESMB Manager: Tech Dir

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
in assessments. Inadequate continuous review. **Effect:** Lack of appreciation or understanding of the safety and environmental priorities and requirements. Resources (competent staff, time and money) are not matched to E&S risk. Insufficient, inappropriate or unnecessary compliance action. Failure to identify and take action on E&S risks in a timely manner. Issues ineffectively communicated to, or addressed by, those who need to take action to prevent E&S risks maturing. **Likelihood:** High **Impact:** Incorrect or insufficient identification, management and mitigation of safety and environmental issues. Potential for nugatory work, or to compromise the capability through increased reliance on operational mitigation or restrictions. Possible delays to programme or ISD. Possible failure to meet requirements of (new) legislation, or mis-judged or out of date mitigation of E&S risks. Additional requirement for operators and users to undertake their own assessments and mitigation. **Risk Category:** Legal and Regulatory, Project, Budgetary, Operational, Health & Safety, Environmental		(ASEMS) to improve scoping and planning of work. Inclusion of E&S project risk reporting in ASEMS and DPA Instructions.	
Risk 4. Failure to assure delivery of safe and environmentally compliant equipment. Effective assurance is required to enable regulatory, policy and legislative compliance. **Effect:** Potential breaches of statutory requirements are not recognised. E&S risks are not demonstrably reduced to ALARP. Failure to identify the correct management of risk in accordance with Departmental policy. Learning is driven by management of maturing risk rather than being informed by audit. Lack of audit limits business improvement, causes high reliance on contract support for the assessment and management of E&S matters, so impeding the development of internal expertise.	High	Inclusion of E&S scrutiny in project performance review and assurance processes. Development of system audit regime as part of the introduction of E&S business procedures (ASEMS) and better-focused compliance audits negotiated with regulators.	Owner: ESMB Manager: Tech Dir

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Likelihood: Medium - High **Impact:** Loss of organisational reputation. Weakening of MOU's with regulators, reducing of the scope to self regulate. Information is not available to support management decision making frustrating organisational development and TLB objectives and targets for current and future performance. Maturing risks could cause Crown Censure action or legal action against staff or others working on behalf of the MOD. **Risk Category:** Legal and Regulatory, Health & Safety, Environmental, Reputation			
Risk 5: Failure to maintain organisational knowledge and culture and affect continuous improvement. Poor communication within and between IPT's and with the Safety Offices could inhibit improvement of safety and environmental management. **Effect**: Learning is driven by issues rather than being planned. Limits business improvement, causes high reliance on contract support for the assessment and management of E&S matters, so impeding the development of internal expertise. **Likelihood:** Medium **Impact:** Stagnation or limitation of performance and improvement. Over reliance on contractors and their perceived specialist knowledge. **Risk Category:** Information, Innovation, Legal and Regulation, Health & Safety, Environmental	Medium	Newly introduce ASEMS require the development of a corporate knowledge base and positive action to improve performance, based on ISO 14000 and 18000 models. Planned review safety competencies, introduction of environmental competencies and revision or introduction of training.	Owner: ESMB Manager: Tech Dir

Table 2: Safety Risk Management

The DPA endorse the MOD SHEF Board Risk Register which recognises many of the risks likely to affect the operations of the Agency. The risks detailed below are considered to have the biggest SHEF impact. The last risk detailed is not included in the SHEF Board Register, but is included following experiences over the last twelve months (late inclusion to SHEF Board Register April 2004).

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Control of contractors - Total Facilities Management partner not adequately controlling Safe Systems **Effect**: Unsafe workplace for MOD staff **Likelihood**: Medium **Impact**: Danger to staff and contractors, damage to infrastructure, loss of site services **Risk Category**: Legal and regulatory, liability, health and safety	Medium	Audit of safe systems Site 4C's policy Employment of Authorised Persons and Authorised Engineers	Owner: ESMB Manager: FMG GL
Risk 2. Failure to conduct DSE, COSHH and Environmental Impact assessments **Effect**: Harm to personnel, non-compliance with regulations **Likelihood**: Medium **Impact**: Loss of capability of staff, litigation, damage to health. **Risk category**: Health and safety, legal and regulatory, budgetary, environment	Medium	Ensure adequate numbers of assessors Provide suitable training Undertake DSE assessments on all personnel Refer to Site Environmental Management System	Owner: ESMB Manager: IPT and SG leaders
Risk 3. Due to the high volume of hire car activities; increase level of RTAs **Effect**: avoidable loss of life, possible absence through injuries, cost of claims **Likelihood**: High **Impact**: reduction of staff resources, increase in claims payouts. **Risk category**: personnel, budgetary	Low	Transport policy Road Safety roadshows Employment of a transport manager	Owner: ESMB Manager: IPT and SG Leaders
Risk 4. Poor accident reporting and failure to learn from accidents and HSE actions **Effect**: Misleading numbers reported, inability to identify trends, inability to provide control measures, danger that incidents may be repeated **Likelihood**: Low **Impact**: Safety of staff, dangerous situations remain unaddressed, injury to staff, increase claims, litigation **Risk category**: Personnel, Health and Safety, legal and regulatory,	Medium	Good accident reporting system Good Health and Safety Manual Good level of awareness Employment of IPT/SG Local SHEF Advisers	Owner: ESMB Manager: IPT and SG Leaders

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
budgetary, reputation			
Risk 5. Failure to maintain commitment to CDP policy statement of all personnel. **Effect**: Lack of awareness, lack of IPT/SG management systems, apathy of all personnel to SHEF issues **Likelihood**: Medium **Impact**: effect on output, effect on morale, increase levels of apathy, difficulty in attaining "buy in " from IPT/SG leaders **Risk category**: Health and Safety, Environment, legal and regulatory, reputation	Medium	CDP Policy Statement SHEF Manual Training of all staff at all levels Commitment by IPT and SG leaders	Owner: ESMB Manager: DCE

PERFORMANCE

Fatalities due to Accident

- None

Operational & Training Fatalities and Incidents

- The agency had a total of 65 accidents over the last 12 months.
- 3 involved lost time, 2 of these were the result of sports injuries

Trends in Accidents and Incidents

- The were no significant trends apparent
- There is still a lack of input from the Facilities Management contractor. They are still not reporting accidents though the DPA system but procedures are due to be implemented address this shortfall.

Pollution Incidents:

- None

HSE/EA Enforcement:

- Crown Censures: The HSE is considering Crown Censure action against the MOD (DPA and RM Poole), following a incident at RM Poole in October 2001. The incident resulted in a member of RM Poole staff and a contractor being severely injured. The injured parties were working on equipment being procured by RM Poole through a DPA IPT.

- Crown Improvement Notices: An incident, in late 2003, involving an electrical Authorised Person (AP) working on a Power Factor Correction (PFC's) unit on the Abbey Wood site resulted in an HSE investigation which culminated in the DPA being issued a Crown Improvement notice. Recommendations made by the HSE Inspector have been fully

implemented, through the strengthening of procedures and awareness briefings, to the satisfaction of the HSE Inspector.

- Crown Prohibition Notices: None

EMS Implementation:

- The Abbey Wood Environmental Manual has been developed into a full EMS and is published on the DPA SHEF Website. This EMS covers all aspects of Environmental Protection for the Abbey Wood site and personnel therein.
- The DPA has embarked on an extensive programme to improve EMSs in its equipment projects, see narrative on the Acquisition Safety and Environmental Management System (ASEMS) under Progress and Successes below.

PROGRESS AND SUCCESSES

Benchmarking of SHEF Performance - initial work has included joining a commercial benchmarking scheme to monitor how the DPA systems and accident statistics compare. Initial indications show that the Agency's systems are comparable with other organisations. This work will continue through the coming year when other comparitors will be sought.

Road Safety Awareness – a successful campaign consisting of a number of Road-shows were well attended and many IPTs/SGs are implementing their own driving policy/packs. The work has highlighted the need for a dedicated Transport Manager for which funding is being sought.

DPA/DLO Joint Working - DPA and DLO have agreed to combine current safety and environmental support groups to form a comprehensive resource to assist projects. This coupled with the publication of the ASEMS in June 2004 will provide a robust and common basis from which to evolve and improve E&S performance across the two organisations

Acquisition Safety and Environment Management System - The ASEMS project started in the summer of 2003, was originally initiated within the DPA, in response to the recommendations of several audits and studies into the management of E&S in projects across acquisition. Since then it has been adopted as a joint DPA and DLO initiative and the procedures developed will apply to all IPTs within those organisations.

The ASEMS have been produced to improve environmental and safety management within equipment programmes, with the aim of improving corporate governance and providing IPTs with a consistent way of working. These the procedures are based on ISO 14001 for the EMS element and standards, designed for the management of facilities and installations, have been adapted for the specific needs of projects, MOD policy and inputs into acquisition decisions. The use of the ISO standards as the basis for the ASEMS enables alignment of E&S work with other areas of development, in particular Quality Management through ISO 9001, and should enable, if desired accreditation of E&S management systems in the future.

Restricted Materials Steering Group – DPA Technical Director (formerly XD2) received a delegation for 2nd PUS to develop the Department's policy and management of the increasing number of materials that are becoming restricted or prohibited from use. The delegation extends the RMSG's former roll on the management and reduction of Chrysolite (White Asbestos). The RMSG reported successful progress on the management and reduction of Chrysolite (White Asbestos) to the HSC and SofS this year, work for which the Department received a commendation from the HSC. Following the report the SofS agreed to the renewal of the blanket/generic exemption certificates, under which MOD operates, for

a future two years after which it should be possible to dispose of the blanket/generic exemption certificates and raise individual certificates where required.

Sustainable Development – The DPA is supporting the Department's SD initiative through its leadership of the Sustainable Procurement Working Group. The SPWG formed up at the end of 2003 and is on track to have SP policy along with instructions and guidance to managers and purchasers for publication towards the end of 2004, inline with HMG objectives.

ASSURANCE ASSESSMENT

Currently the assurance provided to the DPA on project safety compliance comes from the various Functional Safety Boards (FSBs). Through the next year DPA will seek to agree a new assurance regime with the FSBs that provide business focused assurance to the DPA and satisfies the requirements for the FSBs whilst avoiding any possible duplication of effort.

The DPA SHEF Team undertook 20 on site and 11 off site BLB level audits, 60% of IPTs/SGs had arrangements in place, which fully complied with CDP's policy. The remaining 40% were coached and assisted into enhancing their systems to reach the prescribed level, with some 96% showing commitment by nominating a designated SHEF Focal Point. When compared to the DS&C standard SHEF Audit scoring system, the DPA has systems that warrant a Cat A grading.

PRIORITIES FOR 2004-2005

The DPA Business Plan contains targets for improving the management of E&S in projects, all projects are to have E&SMS assessed as complying with MOD policy and DPA management instructions by April 2007, interim targets are 30% (04/05), 75% (05/06). Priority tasks for the coming year include:

- Implementing ASEMS procedures
- Re-organising and re-structuring the current Support Groups under the new DPA Technical Directorate.
- Developing the pan DPA/DLO Environment and Safety Support Group under the new DPA Technical Directorate.
- Improve existing SHEF and Acquisition E&S training packages.
- Develop DPA Transport Policy
- Develop guidance for home-working and flexible working practices

CHIEF OF JOINT OPERATIONS

OVERVIEW

This report covers Chief of Joint Operations' (CJO) area, including the Permanent Joint Operating Bases (Falkland Islands, Gibraltar, and Cyprus), and the Permanent Joint Headquarters (PJHQ) at Northwood. It does not cover any operational areas such as Bosnia, Kosovo, Afghanistan, Iraq etc. It is provided against the background of Op TELIC, which placed significant additional demands on the PJOBs, most notably Cyprus. Three fatalities were reported during the year; of these two were due to natural causes. In Cyprus and Gibraltar an increase in reported accidents and incidents is considered to be as a result of better reporting rather than a reduction in performance. No enforcement action has been undertaken against the TLB during the reporting year. Implementation of EMS across the TLB is variable and it is recognised that this is an area for priority action in the next Financial Year. It is encouraging that external audit of 2 HLBs resulted in achievement of category A rating under the MOD SHEF audit regime.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Potential historic MOD pollution to the environment in Gibraltar **Effect**: Increase in clean-up costs and possible consequences on the future development of the estate. **Likelihood**: High on particular sites **Impact**: Failure to take corrective action (remediation work) will only further pollute the environment. **Risk category**: Damage to MOD reputation, clean up cost, liability, litigation.	Med	Carry out Land Quality Assessments to determine areas and amounts of potential contamination and implement subsequent recommendations.	Owner: CBF- Gibraltar Manager: CESO
Risk 2. Non implementation of an effective Environmental Management System in Gibraltar **Effect**: Degrade units ability to control the effects and impact of operations on the environment. **Likelihood**: High in some units **Impact**: Failure to meet environmental objective will lead to a lack of control on activities that may pose a hazard to the environment. **Risk category**: Damage to MOD reputation, financial cost, liability, incidents.	Med	Implement an effective Environmental Management System, co-ordinated with command Units.	Owner: CBF –Gibraltar Manager: CESO
Risk 3. Inability to provide adequate	High	Contingency planning and	Owner:

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
fire cover in Cyprus **Effect.** Requirement for Defence Fire Service may exceed capacity, which is only funded to protect Priority 1 assets. **Likelihood.** Medium. **Impact.** Potentially disastrous should requirement for fire cover exceed available capacity. **Risk Category.** Health and Safety, Environmental, Legal and Regulatory.		Exercises, including assistance from the Republic of Cyprus Fire Service resources, other Defence Fire Service (DFS) units and 84 Sqn fire-fighting capability.	CBF - Cyprus Manager: J4/ C Fire O
Risk 4. Disposal of stored asbestos, and establishing policy/arrangements for disposal of future arisings from demolition programme in BFC. **Effect.** Increasing problem until a permanent solution is agreed. **Likelihood.** Medium. **Impact.** Retained environmental liability. **Risk Category.** Health and Safety, Environmental, Legal and Regulatory.	High	The necessary Ordinance will be enacted by HQSBAA to satisfy Basle Convention requirements, and allow work to move ahead on disposal of the legacy waste. Existing Memorandum of Understanding (MoU) now extended by new DEFRA Minister, to the end of '04, to allow time for contracts etc to be set up and implemented for future disposal.	Owner: CBF Cyprus Manager: CESO
Risk 5. Lack of investment in infrastructure in Cyprus **Effect.** Poor and declining quality of the built estate poses increasing H&S risk. Examples of the potential effects include disease harboured in plumbing, wiring becoming dangerous and the severe, possibly catastrophic, effect of earthquake on non seismically-safe buildings. **Likelihood.** Medium. **Impact.** Significant loss of life following earthquake, depending upon nature and extent of the disaster. Potential health risks and electrical safety accidents. **Risk Category.** Health and Safety, Liability, Legal and Regulatory.	High	Copies of the Condition Survey have been sent to the Facilities Management teams, who continue to undertake Preventative Planned Maintenance and Response Maintenance to ensure that H&S risks are minimised ahead of the introduction of Project Aphrodite (a PFI to provide single living and Service family accommodation).	Owner: CBF Cyprus Manager: SO1 ER

PERFORMANCE

Table 2: Fatalities due to Accident

Fatalities	Remarks
2	**BFC** **1 on Training Area within the RoC** - a soldier (cadet) with a UK Military unit visiting BFC for Operational Training was crushed between 2 vehicles during a night-time exercise. **1 civilian relative of a service-person died whilst taking part in a water-sport activity** – incident being investigated by the SBA Police and the Special Investigation Section of the Military Police. The *indications* are, at this stage, that the individual died of natural causes (heart attack) and not the victim of an accident. (This incident is included as the 'official' inquiry findings have not been formally issued.)
1	**BFFI** Soldier died (heart attack) whilst carrying out personal fitness training (BOI completed)

Operational & Training Fatalities and Incidents:

A soldier was evacuated from BFFI to UK as a result of a self-inflicted gunshot wound (failure of drills), subsequent treatment required amputation of lower leg. Another soldier was evacuated as a casualty to UK as a result of a 'Road Traffic' incident where he fell from moving vehicle. A BOI was completed. No other incidents have been reported.

Trends in Accidents and Incidents

Falkland Islands

There are no specific trends in accidents and incidents however all are reviewed at the Theatre SHEF Policy Committee meetings.

Cyprus

A review of the reporting system and consequent reduction in number of reporting points to 6 has led to an increased number of events being reported on CHASP. This is considered to be as a result of better reporting rather than an actual increase in accidents and incidents. All accidents that would in the UK be classed as RIDDOR reportable, receive appropriate follow-up action. A small increase in RTAs was noted but this should be set against the considerable increase in movements due to Op TELIC and is not considered significant. The reduction in RTAs to 4 during Dec 03 from 19 in Dec 02 is seen as encouraging and may be attributed to a vigorous campaign against "Drinking and Driving" up to and around the Christmas period.

Gibraltar

Gibraltar recorded an increase in incidents and accidents reported to CHASP. This was co-incident with an increased emphasis being placed on the reporting of near misses, dangerous occurrences and minor accidents and is not viewed as a decline in the safety culture.

Pollution Incidents:

Gibraltar

No pollution incidents were reported for Gibraltar.

Cyprus

A total of ten Tier 1[2] spillages occurred during the year with one Tier 2 spill that was connected to Op TELIC, occurring at a "Fixed" installation and was due to human error. An intrusive survey into the extent of the contamination caused by the Tier 2 spill is planned and will be undertaken by the Royal Engineers.

Falkland Islands

There were three Tier 2 spills during the year of which only one incident resulted in pollution to the local seawater environment. Immediate actions were completed and waste was collected (prior to shoreline) as containment systems filled and was disposed of in accordance with current instructions. Monitoring is carried out daily and no impact on bird life, shore-breeding areas or food chain has been noted. It is estimated that the spill will be cleared within 6 months. There have been 25 reported Tier 1 minor incidents on or around the site; however, prompt clear up actions ensured that all waste was disposed of in accordance with current instructions.

HSE/EA Enforcement:

Crown Censures: Nil

Crown Improvement Notices: Nil

Crown Prohibition Notices: Nil

No Crown Enforcement action was experienced during the reporting year, for the overseas bases no enforcement action was taken by any local enforcement agencies.

EMS Implementation:

Cyprus

In Cyprus, EMS implementation has progressed well with 100% implementation in WSBA and around 75% in ESBA. The variation is due to the lack of a full time SHE adviser at Dhekelia until spring 03. This has been compounded by lack of EP training from RAF Halton, but arrangements have been made for this to be provided during the next reporting year.

Gibraltar

In Gibraltar, implementation of EMS has been deferred to FY 04/05 due to funding issues associated with LQA. The SOR and action plan for the EMS is already in place with a revised Investment Appraisal and Business Case for the consideration of the Command Business Board.

[2] Tier 1.Where the clean up is entirely within the unit's capability. Tier 2. The clean up requires the assistance from another service unit, or from an external organisation, Tier 3. A catastrophic incident requiring major external assistance. (JSP 317 4th Edition 2001, App 1 to Annex D)

Falkland Islands

For BFFI the implementation of the EMS is still in its infancy largely as a result of MACR endorsement not being issued until Dec 03 together with the gapping of the Theatre Environmental protection officer (TEPO) post until May 04.

PROGRESS & SUCCESSES

CJO has maintained steady progress in raising SHEF standards in the TLB as is demonstrated by improvements in accident and incident reporting culture and the 2 successful SHEF audits of PJOBs. Local successes are detailed below.

Cyprus

- Publication of WSBA SHE Management Manual
- SHE Policy document prepared and issued for ESBA
- Category A achieved in recent audit of BFC

Gibraltar

- Production and introduction of new SHEF Management Plan
- SHEF Manual revised to complement the new Performance Indicators In the SHEF management plan
- SHEF training programme delivering courses by SHEF Personnel on a monthly basis across the command
- Inauguration of SHEF Web page containing sufficient information for an OC of a unit for day to day SHEF implementation.
- Introduction of an annual report for the command including a narrative of progress and successes (including accident and near-miss statistics)

BFFI

- Completion of a domestic landfill site in Jun 03.
- Funding agreement from TLB for hazardous waste compound and Bowser parking area.
- Category A achieved in audit of BFFI.

ASSURANCE ASSESSMENT

The PJOBs and PJHQ are subject to external audit (provided by CESO(C)) on a three-yearly rolling programme. During the reporting year, audits were undertaken of BFFI and BFC, both achieving a category A under the MOD audit regime (92% and 93% respectively). These audits are supplemented at local level by further audit and inspection regimes. In addition SHEF training is provided for personnel and SHEF objectives included in local management plans.

PRIORITIES FOR 2004-2005

- Progress with the implementation of Environmental Management Systems, including the compilation of "Register of Significant Environmental Effects"
- Reduction in the number of Significant Environmental Effects at RAF Akrotiri
- Instigation of LQA Phase 3 (remediation work) aimed at elimination of known historical pollution at sites in Gibraltar
- Inclusion of all identified SHEF works requests into the forward maintenance programme in Gibraltar according to the priority that has been verified by the SHEF Cell
- Further development of SHEF training

- Mentor SBAA in developing SHEF management systems in parallel with the standards that will be applied in the Republic of Cyprus following its accession to the EU
- Evaluate accident and incident trends with the aim of raising awareness and ultimately reducing accidents
- Improvements to the control of contractors in Gibraltar.
- Implementation of a refined and coherent SHEF management structure at TLB level.

CENTRAL TLB

OVERVIEW:

This report, which follows the DS&C format, covers the Central TLB (CTLB) and its Agencies. In the majority of areas the management of SHEF risks is mainly satisfactory with a number HLB audits showing compliance with legislation and MOD Policy. In the more office-based organisations with lower hazard density the management systems are significantly below the minimum standard required. High performing areas during the year included CDI who achieved a highly creditable 93% in its SHEF audit by the CTLB audit authority. Poor performing areas included DMETA who achieved 40%. The average PI for the HLBs audited was 72%.

The lack of a demonstrable TLB wide SHEF management system contributed to the DS&C audit of the organization indicating significant non-compliance with MOD policy in a broad range of areas. These included poor implementation of the MOD environmental management system at HLB and Agency level and the seemingly low priority given to FSMP's by line management. DS &C also questioned the adequacy of resources for the SHEF focal point system. A number of these deficiencies had already been identified by the internal assurance processes with key remedial activities being addressed within the CTLB SHEF strategy.

The endorsement of the CTLB SHEF strategy by the TLB management board in March 2004 has put in place firm foundations from which implementation can proceed. Whilst CBSSBC professional staff can provide guidance and direction, the responsibility for implementation resides firmly in the line management chain drawing on the consultancy role of CBSSBC. Guidance and direction from CBSSBC will include publicity via management briefings, road-shows and the CBSSBC-SHEF web pages. The implementation of the SHEF strategy across the TLB will be evaluated as part of the mandatory HLB audit process and is detailed within the 'MOD SHEF audit manual'.

RISKS

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Poor perception of risk at organisation level. **Effect:** Lack of management focus on SHEF implementation. **Likelihood:** High **Impact:** Stagnant performance resulting in a failure to exploit possible business advantage from new technology/practice/requirements. Failure to minimise risk of accident injury and consequent litigation.	High	• The formulation of organisational risk registers. • Completion of site risk assessments. • SHEF included in balanced scorecard • SHEF training strategy to be issued	**Owner:** CTLB Management Board. **Managers:** Line management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 2. Poor Environmental Management Systems **Effects**: Inadequate risk management actions **Likelihood: High** **Impact:** Ability to meet statutory/ Governmental or departmental standards can not be demonstrated.	Medium	• CTLB EMS needs to be produced and implemented	**Owner:** CTLB **Managers:** Line managers, CBSSBC
Risk 3. Emergency procedures at sites owned or operated by contractors or other TLB's are left to the host organisation. **Effect :** Loss of management control of organisational risks. **Likelihood:** Medium **Impact:** Increased risk to business continuity interruption, reputation and increased civil liability.	Medium	• Line management to co-rdinate with third-party management systems and monitor affects on CTLB	**Owner:** Heads of units. **Managers:** Line Management
Risk 4. Third-party management systems and risk assessments at sites owned or operated by contractors. **Effect:** loss of management control of organisational risks. **Likelihood:** Medium **Impact:** Increased risk to business continuity interruption, reputation and increased civil liability and poor statutory compliance.	Medium	• Line management to coordinate with third-party management systems and monitor affects on CTLB	**Owner:** Heads of units. **Managers:** Line Management
Risk 5. Deficiencies in safe systems of work in some areas. **Effect:** Loss of management control and Increased risk of injury or ill health **Likelihood:** Medium **Impact** risk to business interruption, deliverables, reputation and increased civil liability and statutory compliance.	Medium	• Line management to assess third-party management systems and risk assessments need to be coordinated • Action plans need to be produced and implemented. • Take up of Line manager training needs to be enhanced	**Owner:** Heads of units. **Managers:** Line Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 6. CBRN/Terrorist attack on CTLB facilities and buildings **Effect:** Multiple casualties, loss of facilities, impact on business outputs, reputational issues **Likelihood:** Low **Impact** .Degradation of ability to maintain core defence outputs	Low	• Security analysis • Building audits • Emergency planning and production of procedures • Business continuity plans	
Risk 7. Failure to accept Ownership of completed Fire Safety Management Plans. **Effect:** Increased risk to Life, asset and building protection against fire. **Likelihood:** Medium **Impact:** Failure to provide safe place of work and comply with Departmental and legislative requirements with regard to Fire Safety	High	• Management to accept and apply Departmental Policy within JSP426 • CTLB Fire Risk Strategy to be produced in tandem with launch of the SHEF Strategy	**Owner:** Heads of Establishment/Principal Building Officers **Managers:** Line Management. CBSSBC
Risk 8. Failure to undertake Fire Awareness Training. **Effect:** Increased risk to Life, Property Protection. **Likelihood:** Medium **Impact:** Result in the inability to react appropriately in the event of fire. Failure to comply with Departmental Policy and Legislative requirements.	High	• Management to accept and apply Departmental Policy within JSP426 • CTLB Fire Training Strategy to be produced in tandem with launch of the SHEF Strategy.	**Owner:** Heads of Establishment/Principal Building Officers **Managers:** Line Management. CBSSBC

SHEF Management

The key risk, represented in a number of the serials, is lack of progress with implementation of SHEF management from the top of the organisation down. Senior managers are now demonstrating their commitment and have been reminded of the importance that 2nd PUS attaches for all line managers to understand their SHEF risks as well as governance at local management board level. And to have appropriate measures in place to minimise or control them. The SHEF strategy is the starting point only. The implementation of the strategy is a listed priority for 2004/2005. The strategy action plan will form the basis of SHEF implementation in 2004/05.

CBR

The threat from CBR and terrorist attack remains. Much work has been undertaken to give the top-level lead on means of mitigating the risks and consequences of such incidents. This

is being taken forward jointly with security and business continuity professionals to ensure a coherent approach.

PERFORMANCE

Fatalities due to Accident. No fatalities due to accident were reported in year. Nor were there any fatalities or major accidents due to operational training.

Trends in accidents and incidents. There were no visible commonalties in accident causation identified which required action at TLB level or above.

Claims. DS&C Claims paid approximately £1.5 million during the first three quarters of 2003-04 for common law compensation claims arising in the CTLB. The majority of such claims were as a result of falls, trips and slips, property damage and road traffic accidents – the type of accidents experienced in any large organisation. Compared to the other TLBs engaged in more hazardous tasks the CTLB is a relatively safe place to work.

The largest settlement was paid to a soldier who was medically discharged after suffering serious injury when a kitchen cupboard fell on his head. The claim settled for £325,000 including the claimant's legal fees. The largest claim from a civilian member of staff was for exposure to asbestos in Whitehall resulting in mesothelioma, a disease that can take up to forty years to manifest but having done so results in a life expectancy of only eighteen months. Compensation and legal fees were over £190,000. Claims for stress and sexual harassment remain to be settled.

Pollution Incidents. No pollution incidents reported during 03/04.

Enforcement Action. There were no statutory actions taken against CTLB units by external regulators during the period of this report. Work in support of HSE requirements during work to mitigate asbestos contamination at the Old War Office was completed to the satisfaction of the regulator. There may yet be further action resulting from the fatal accident in the Defence Crisis Management Centre (DCMC) that occurred during the previous reporting year. The Crown Improvement Notice F060002877 issued 17 Feb 03 was complied with by 1 May 2003.

The Inquest on the deceased in the DCMC fatality concluded that "The deceased died following an electrical explosion and it was not realised that a piece of equipment had live electricity because the procedures for safety were not sufficiently clear to all participants and the overall supervision by those charged with the duty to effect this had not been reviewed for clarity in recent times". At the time of producing this report we do not know whether the HSE will conclude that a Crown Censure is appropriate. But 2nd PUS, as senior responsible officer, has already made clear that he will attend any such hearing: a senior military representative from the line management area will also be present.

EMS Implementation. The implementation of Environmental Management Systems (EMS) in the CTLB is poor. Whilst a number of areas within the TLB have taken local action in producing basic unit or activity based EMS e.g. DASA, and the PPA, there remains no co-ordinated or consistent approach across the TLB. The consequence of this is that the required level of assurance that all sites comply with the statutory minimum requirements cannot be given. There is an attendant risk of enforcement action from the external regulator with its attendant impact on reputation and resources. This weakness was highlighted in the recent DS&C audit and during internal audits. Its rectification will be afforded the highest

priority in the forthcoming year and is included in the TLB risk register [endorsed by the TLB Audit Committee.]

PROGRESS AND SUCCESSES:

During 03/04 progress was maintained with regard to SHEF issues. Of the issues identified in the 02/03 report, the TLB SHEF strategy was produced; the HSE lifted the Crown Improvement Notice served on the DCMC and work progressed with procedures to deal with CBRN incidents. ASSP and FS 2000 studies have progressed with recommendations being made but a final Departmental level decision is yet to be reached. SHEF training provision has been maintained and its provision reviewed. There has been a marginal improvement in the score achieved against the MOD SHEF audit PI.

A comprehensive SHEF strategy for the TLB was drafted during the reporting year. The Central Budget Management Board (CBMB) endorsed the SHEF Strategy, the Organisation and Arrangements Statement, and the SHEF Action Plan in March 2004. The SHEF action plan details the targets associated with launch of the CTLB SHEF Strategy.

The TLB has led CBRN risk mitigation activities including planning and the provision of training for both MOD staff and other government departments. This has been conducted in conjunction with security and business continuity colleagues to ensure that all relevant perspectives are taken into account and was recognised in a study commissioned by DGSS to look at the wider threat from international terrorism. This should been seen as a significant achievement and may lead the way for a revised approach both across the Department and other Government Departments.

The removal of the asbestos discovered in the basement of the Old War Office Building is progressing to the satisfaction of the external regulator (HSE) despite the additional challenges brought about by the flooding. Specialist advice and support has assisted DG INFO to address National Archives request to obtain files from OWOB basement which may have asbestos contamination.

Occupational Hygiene support to the CTLB has led to:

- asbestos stripping resuming in OWOB following a short stoppage caused by concerns in respect of noise/vibration raised by an HSE inspector.

- a hearing conservation programme to protect DE personnel at risk from hearing damage at US airfields.

- identification of remedial actions to protect MOD personnel working in main building during the refurbishment project.

- greater understanding of CBR risks in relation to open plan offices.

The CTLB SHEF audit programme was brought back on track and progress in conducting audits has been maintained. SHEF training has been delivered by a number of providers within the CTLB using both internal and externally accredited training packages. The level of compliance with the MOD training strategy and task specific training is variable and, in most cases, totally excludes environment. Performance in this area was constrained principally by poor or inconsistent identification of personal training needs.

A quarterly meeting of HLB SHEF focal points has been instituted to aid communication across the TLB. The general level of representation is disappointing. The establishment of a

CTLB SHEF web-site is also providing an additional opportunity for enhancing communication.

AUDIT:

The CTLB was subject to Audit by the Director of Safety and Claims in the 4th quarter of the reporting period and a provisional score of 71% awarded. The report highlights that opportunities to improve performance exist in the planning, implementation and operation, checking and corrective action and management review aspects of CTLB SHEF management. The recent achievements in developing policy were acknowledged as was the high standards of the CBSSBC Fire team.

Audits of HLBs and Agencies have shown a wide variation in the levels of compliance achieved with Performance Indicators ranging from 40%(DMETA) to 93%(CDI) and a mean of 72%. The PI's were generally depressed by limited activity in environmental protection and sparse organisational planning, resourcing and control systems at the HLB level. The overarching area of concern identified during the audit year was that HLBs were leaving BLBs to develop and implement SHEF management in relative isolation. This is leading to duplication of effort across BLBs, poor visibility of SHEF risks at HLB level (and above), a decline in supervision from higher management levels and is over reliant on local custom and practise (see Coroners verdict on the DCMC accident).

Specifically and because of poor performance, rather than a six-monthly follow-up visit, DMETA will be subjected to re-audit in FY04/05. The audit will look at the SHEF management system as a whole, as well as reviewing the progress against the action plan produced by the Agency in response to the audit findings and recommendations of the FY03/04 audit. DMETA have reported that a new SHEF statement has been published, a programme of self-assessment at all units has been instigated and a SHEF training plan has been issued. DMETA have also just been subject to the verification phase of the CTLB audit by DS&C, who identified no significant issues.

ASSURANCE ASSESSMENT:

This report has highlighted that, while the CTLB SHEF management systems are yet to fully develop, there are sufficient assurance activities in place to identify key areas for development and to initiate action.
There is a full recognition within the CTLB at senior and middle management levels that SHEF risks need to be addressed within the assessment of business risks in accordance with the spirit and intent of JSP525. SHEF compliance is a standing item now on Management Boards and is discussed formally with the TU side twice a year. The forthcoming introduction of SHEF into the organisational balanced scorecard will further assist top management in understanding the nature and extent of SHEF risks and in targeting resources to control them.

However a significant work package exists to develop the SHEF management system within a period of organisational change. The recent achievement in rectifying deficiencies in CTLB SHEF policy demonstrates that a systematic approach to SHEF improvement is being implemented. At present it is not possible to give more than limited assurance that SHEF risks are being adequately managed.

PRIORITIES FOR 04/05:

The strategic priority for the forthcoming year is to continue to build a single corporate identity to re-energise units to emulate the high standard already achieved in some areas of the TLB and the development of an effective organisation wide environmental management system, including the consideration of sustainable development issues.

The main geographic specific issue is the management of risks associated with the forthcoming return to Main Building and its long-term safe occupation, while organisation wide issues include maximising the value of both reactive and active monitoring data and its analysis. These priorities within the environment of ongoing initiatives of improving the acceptance by line management of their ownership of SHEF risk. These qualities need to be progressed within a general environment in which corporate and individual ownership of SHEF, including risk, needs to be significantly improved.

DEFENCE MEDICAL SERVICES

INTRODUCTION

The Defence Medical Services consists of the following:

- The Defence Medical Services Department
- The Three Medical Directors General and their staffs
- All personnel (military and civilian, regular and reserves) employed by the Medical Services branches of the Royal Navy, Army and Royal Air Force
- All staff employed by the Medical Agencies (DDA and DMETA)
- All staff employed outside of the above areas who are required to maintain professional standards as laid down by the Surgeon General.

The Defence Medical Services Department provides strategic policy guidance to the Defence Medical Services. With the exception of the Medical Agencies, the Defence Medical Services SHEF reporting responsibilities are via the single Service and CJO chains of command. This report will, therefore, only deal with the Medical Agencies.

REPORTS OF THE MEDICAL AGENCIES:

DDA

DEFENCE DENTAL AGENCY (DDA)

OVERVIEW

This report forms the SHEF return for the Defence Dental Agency (DDA).

The DDA has undergone significant organisational changes since its formation in 1996. This includes the transfer of training functions to DMETA. The DDA currently consists of 17 Regional Headquarters headed by a Principal Dental Officer and 200 Dental Centres.

CESO (centre) undertook a SHEF Audit of the DDA in July 2003. A 'B' Rating (80%) was achieved against the requirements of the SHEF Audit Manual. It was reported that progression to an A rating should be achievable within the next 2 years.

RISKS

Table 1: Health & Safety

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Legal & Regulatory SHEF Requirements **Effect:** Litigation **Likelihood:** Medium	High	Management Reports submitted quarterly by regions to HQ DDA. Production of the DDA Health & Safety Manual, which provides a good range of Practical Guidance and Policy Direction.	**Owner:** CE DDA **Managers:** SHEF Focal Point SHEF Advisor

PERFORMANCE

Accidents: DDA units have reported the following accidents:

Type of Accident	Number Reported	Comments
Needle Stick Injury	6	Investigated procedures causing accidents and refresher training instigated. (Reported in line with CHASP)
Scratch from used bur	1	(Reported in line with CHASP)

Operational & Training Fatalities And Incidents: Nil

Trends In Accidents And Incidents: Nil

Pollution Incidents: Nil

HSE/EA Enforcements: Nil

EMS Implementation: Nil

PROGRESS AND SUCCESSES

Production of the DDA Health & Safety Manual, which provides a good range of practical guidance and policy direction to all DDA personnel.

AUDIT RESULTS

Audit conducted by CESO (centre) in July 2003. Overall rating of 80%. Outstanding actions from the audit are currently being addressed by the DDA SHEF Advisor.

ASSURANCE ASSESSMENT

SHEF training requirements are well managed through the IIP Process where post profiles and individual training and development needs are determined.

PRIORITIES FOR 2004-2005

- Develop and implement a fully integrated SHEF Management System.
- Review DDA SHEF Statement, with attention to a proactive hazard identification and Risk Assessment approach.
- Review and produce SHEF action plan and include in SHEF Statement.

DEFENCE MEDICAL EDUCATION AND TRAINING AGENCY (DMETA)

OVERVIEW

This report forms the SHEF return for DMETA.

CESO Centre conducted a SHEF audit on DMETA in Jun 03. At the time of the audit DMETA was an agency in its infancy with the SHEF Focal Point position gapped and as such the overall scoring of 40% was not unexpected. An action plan has been produced from the recommendations made following the audit and work is progressing well to ensure a SHEF Management System is formulated and implemented. A further audit is to be undertaken in Jun/Jul 04 at which point it is anticipated that DMETA will achieve a fully satisfactory scoring.

RISKS

Table 1: Health & Safety

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Statutory Requirements There is no SHEF Management System for DMETA **Effect**: Failure to comply with statutory legislation leaving MOD open to court action. **Likelihood**: Low **Impact**: BSC Objectives affected: SHEF Compliance	Medium	All DMETA units have SHEF Management systems in place which, during the CESO Centre audit, were assessed as fully satisfactory. Work is currently under way to formulate a DMETA wide SHEF Management System taking into account all of the recommendations highlighted in the Audit Report.	**Owner**: D F&S **Manager**: SHEF Focal Point

PERFORMANCE

Accidents: The following accidents were reported by DMETA units for the period 1 Apr 03 to 31 Mar 04.

Type of accident	No reported	Comments
Fatalities	0	
Major Accidents	0	
Serious Accidents/injuries (>3 days off work, minor breaks, bad cuts, visits to A&E Depts)	4	All RIDDOR reported

Minor Incidents (minor cuts, bruises etc)	64	All reported on CHASP
Near Misses (no injury, but lessons learned)	103	Mainly slips and trips with immediate action taken to avoid further injury

Pollution Incidents: EPA are aware of sewage pipe backup in ground adjacent to quarters area at Defence Medical Rehabilitation Centre (DMRC) Headley Court. Sewage has been pushed out of drains due to a blockage. Work to correct this is being undertaken by DHE. Sewage has been removed from site, clean up work to follow.

Operational & Training Incidents: One adventurous training incident involving a member of staff from Defence Post Graduate Medical Deanery (DPMD) on training in Germany. A skiing accident has resulted in an injury to individual's knee requiring follow up surgery. This accident has not been included in DMETA's statistics above as reporting action has been undertaken by the unit in Germany.

Trends in Accidents and Incidents: Due to the infancy of the Agency it is not possible to analyse trends in accidents and incidents against those incurred in previous years. However, there remains a high level of slips and trips around establishments. Site Risk Assessments are being conducted at present which should highlight any obvious hazards that have not already been identified.

HSE/EA Enforcement: Nil

EMS Implementation: Some DMETA units have Environmental Management Systems in place. An Environmental Impact Register and overarching DMETA Environmental Management System will be produced in the near future.

Fire Safety Issues: Call challenging has been introduced in the 3 main DMETA sites, DMSTC, DMRC and RH Haslar/Fort Blockhouse.

CESO Centre Fire Officers have conducted site visits to all DMETA units. Some areas of concern were highlighted at DMSTC. Work is in hand to address all issues raised with a detailed plan of action being produced. Many of the issues concerned were due to the gapping of the Fire Officer post within DMSTC which has now been filled.

Fire Safety Management Plans are being produced for all buildings within RCDM where MOD staff reside.

RH Haslar/Fort Blockhouse have recently conducted Fire Floor Liaison Officer (FLO) training for a large number of staff which has resulted in all buildings having at least one FLO on each floor of all buildings on both sites – a mammoth task for which all credit goes to Mr Derek Candy, the site Fire Officer. This is an area which will be discussed at the next DMETA SHEF Committee meeting to ensure all units have sufficient staff trained in FLO duties.

AUDIT RESULTS

A CESO Centre SHEF Audit conducted on DMETA in Jun 03 returned 40% compliance.

The main areas for concern were as follows:

- No overarching SHEF Management System
- No internal audit processes in place

- No SHEF Action Plan in place

This is not considered to be a serious problem, as all DMETA units have existing SHEF Management Systems in place which were assessed as being fully satisfactory. All tasks arising from the audit are being staffed by the SHEF Focal Point and it is anticipated that the follow-on audit which will take place in Jun/Jul 04 will give DMETA a fully satisfactory rating.

A DMETA audit and monitoring programme has been implemented with the first audit responses due Apr 04. Any issues highlighted from these audits will be assessed and staffed accordingly. Workplace inspections are also to be carried out on a biannual basis with results copied to SHEF Focal Point.

PRIORITIES FOR 2004-2005

- Implementation of SHEF Management System
- Monitoring of Internal Audit system
- Production of a draft Environmental Management System
- Site Risk Assessments to be conducted and recorded
- Implementation of DMETA SHEF Training Plan

ARMY BASE REPAIR ORGANISATION (ABRO)

OVERVIEW

ABRO's function is to provide in-depth engineering support to the UK Armed Forces. The Agency's principal customers are DLO and LAND, to which we provide land system maintenance and support for fighting vehicles, trucks, radios and small arms etc.

At the heart of the Agency are approximately 2,500 employees based at six main workshops and their detachments. ABRO has concentrated on the implementation of an Occupational Risk Management System based around the Health and Safety OHSAS 18001 and Environmental ISO 14001 standards.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Death or serious injury to employees as the result of an accident. **Effect**: Legal action/prosecution. Lost confidence/morale **Likelihood**: Low **Impact**: Closure or suspension of process resulting in lost productivity. **Risk category**: Market. Legal & Regulatory. Reputation.	Medium	Implementation of OHSAS 18001 Health and Safety management system. Completion of new hazard survey and risk assessment procedure for all processes is a key milestone for FY 2004/05.	Owner: ABRO Board Manager: Chief Occupational Risk Adviser
Risk 2. Recurrence of unsafe acts or conditions. **Effect**: The same failing happening again resulting in recurring accidents. **Likelihood**: Low **Impact**: Closure or suspension of process resulting in lost productivity. **Risk category**: Market. Legal & Regulatory. Reputation.	Low	Ensuring all actions / recommendations from audits, accident investigations and risks assessments are logged and followed through to closure. Outstanding actions to be monitored and used as an internal performance indicator.	Owner: ABRO Board Manager: Chief Occupational Risk Adviser
Risk 3. Hazardous substance spillage. **Effect**: Environmental Contamination. **Likelihood**:	Medium	Implementation of ISO 14001 Environmental management system. Complete Initial Environmental Review at all site by end of FY 2004/05 a key milestone.	Owner: ABRO Board Manager: Chief Occupational

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Medium **Impact**: Closure or suspension of process resulting in lost productivity. Significant clean-up costs. **Risk category**: Market. Environmental. Legal & Regulatory. Reputation.			Risk Adviser
Risk 4. Serious Fire. **Effect**: Loss of life and/or facilities. **Likelihood**: Low **Impact**: Lost productivity. Significant clean-up costs. **Risk category**: Market. Environmental. Legal & Regulatory. Reputation.	Medium	FRAM completed at all sites. Defence Fire Service has recently conducted a tour of all ABRO sites looking into business risk and fire, rather than previously concentrating on personnel safety and fire. Reports due soon.	Owner: ABRO Board Manager: Chief Occupational Risk Adviser

PERFORMANCE

Fatalities due to Accident: There were no Fatalities during reporting period

Operational & Training Fatalities and Incidents: No Fatalities during reporting period

Trends in Accidents and Incidents: Analysis of all ABRO accidents over the reporting period has indicated that 83% were attributable to unsafe acts (e.g. someone driving a forklift too fast), and only 17% were attributable to unsafe conditions (e.g. driving a forklift that had defective tyres). This suggests that in order to further reduce accidents ABRO will need to investigate behavioural safety management / techniques.

Pollution Incidents: Release of Diesel at ABRO Donnington following a leak from an underground pipe. Environment Agency informed and satisfied that contamination has been contained. Remediation of contaminated land underway.

HSE/EA Enforcement: No enforcement notices received during period.

Crown Censures: None.

Crown Improvement Notices: None

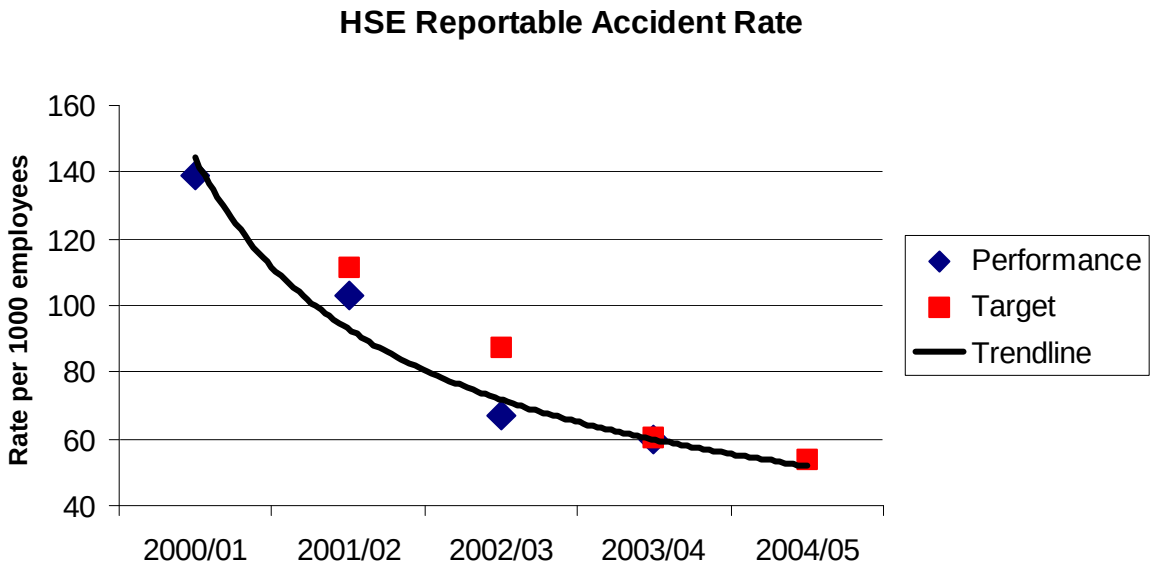
Crown Prohibition Notices: None

EMS Implementation:

See Risk 3 above.

PROGRESS & SUCCESSES

- The following chart details the reduction in HSE reportable accidents over the last, and previous four years. A reduction target of a further 10% has been set for FY 2004/05.



- All Occupational Risk Advisers have obtained, or are obtaining, a Safety Management Diploma qualification. In addition all Advisers are, or will be, completing an Environmental Management Diploma.

- All Occupational Risk Advisers have obtained, or are obtaining, an auditor or lead auditor qualification.

- The planned audit schedule was completed at all sites.

- The Occupational Risk Management System Working Group (comprising three Trade Union Safety Reps and three ABRO management representatives), has successfully developed a number of policies in partnership.

ASSURANCE ASSESSMENT

The Chief Executive and Directors are fully aware of their SHEF responsibilities; they take a personal interest in improving Safety and Environmental performance throughout the Agency and ensure commitment at the highest level.

- The Chief Occupational Risk Adviser has a 15 minutes briefing on each Executive Management Board and Trading Fund Board. This is always the first item to be discussed.

- The CE ABRO included H&S performance in his 6 month brief to the workforce.

- Both ISO 14001 and OHSAS 18001 standards are based on continued improvement, rather than simple compliance with legal requirements. Whilst compliance is mandatory

within the Agency, the implementation of these standards will ensure that performance continues to improve even if legal compliance has been achieved.

- ABRO has set a target to reduce the rate of HSE reportable accidents per 1000 employees by 10% by the end of 2004/05, using 2003/04 as the baseline year.

- It should be noted that a reduction in ill health related incidents are more difficult to monitor due to baseline information and historic legacy issues. ABRO has invested in four dedicated Occupational Health Advisers and has recently approved an additional part time post.

- ABRO as a Trading Fund recognises that proactive Health, Safety, Environmental Protection and Fire performance makes good business sense and discharges both our moral and legal duties.

PRIORITIES FOR 2004-2005

ABRO will endeavour to reduce accidents, ill health incidents, environmental impact and business risks on a continuous basis. This will reduce operational costs and therefore promote stakeholder and customer confidence in a cost effective product.

DEFENCE AVIATION REPAIR AGENCY

OVERVIEW

This report summarises SHEF performance for the period April 03 – April 04, and has been constructed against the objectives detailed in the 2003/2004 Business Plan and recommendations from third party audits that have been undertaken within the period. The scope of the report includes performance against objectives and targets set in 2003/2004. The risks identified are included into the Company Secretary Corporate Risk Register. The Risk Management Board meet on a 6 monthly basis; all risks are reviewed at these meetings. SHEF is well embedded into this process as part of the overall drive to improve upon Corporate Governance and to reduce business risk. The Effective management of SHEF remains high on our list of priorities; this has enabled DARA to achieve further advances by the implementation of dedicated software to manage accident and incidents and to therefore calculate the cost of such to the business. Further advances will be achieved due to the imminent implementation of OHSAS 18001 standard across all of DARA sites. This, added to our continued accreditation to BS EN 14001 ensures that are systems are robust and continuously improving. This report has been circulated to Governance Group and other interested parties. A copy has also been issued to Head of Internal Audit.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Management of authorised Processes Failure to manage highly polluting processes, (IPPC) **Effect** Significant pollution to air, land and water. Adverse attention in regional and national press. Health & Safety implications to wider community **Likelihood**: Low **Impact** Legal Action, Adverse media attention, loss of business continuity **Risk category**: Liability, Environmental, Health & Safety, Budgetary	High	DARA Strategic Risk Register developed. Emergency response and business continuity plans developed at each DARA site. Emergency response and Business continuity exercises carried out on all sites annually. BCP exercise on Risk 1 carried out on 10th May 04. Desktop Study carried out on the same day. Action plan to be developed to address identified issues.	[Owner: DARA Chief Executive [Managers: Chief Operating Officer, All Site Directors.

Management of Highly Polluting Processes.

DARA Fleetlands and DARA Almondbank operate IPPC processes, which are authorised and monitored by the Environment Agency and Scottish Environment Protection Agency respectively. The EA and SEPA have issued permits to these sites that lay down specified conditions to ensure the prevention of pollution. The EA and SEPA monitor these Sites on a three monthly basis. There has been one minor breach of the specified operating conditions, which was reported to the EA in accordance with the IPPC Permit specification in July 2003. As a result a written warning was received which was posted onto the public register and certain improvements were required to be effected. No enforcement actions were taken. Since then Business Continuity Planning exercise has taken place, which has identified further SHEF and business issues to be addressed. An Action plan is being developed to address these issues and the BCP will be tested again in six months time.

PERFORMANCE

As part of the on-going drive to improve SHEF performance, and as reported in last year's DESB report, DARA have implemented an electronic SHEF Management system. This system allows us to better manage SHEF issues. Part of this system includes a claims and costing management tool that has been 'rolled out' to relevant personnel i.e. DARA Treasurer to have a better indication of Claims received and to give assurance to DARA insurers that we have robust and effective systems in place. DARA have committed to third party accreditation to OHSAS 18001 across all DARA Sites, with the first Site going through accreditation process within the coming months.

Table 2: Fatalities due to Accident

Fatalities	Remarks
One	Road Traffic Accident whilst on Duty.

- An employee was driving to an RAF site when involved in head - on collision that proved fatal. The accident was reported, as a matter of procedure, to the HSE as a RIDDOR incident. HSE took no follow- up action. However, the DARA driving policy was reviewed, re-issued in draft and is in process of consultation with all stakeholders prior to issue to the workforce.

Operational & Training Fatalities and Incidents: Nil to report.

Trends in Accidents and Incidents. Using the last year's accident analysis, as a baseline there was a 40% reduction in Accidents/ incidents. Implementation of the new system will ensure data is received promptly.

Pollution Incidents: One pollution incident reported. IPPC breach occurred as previously mentioned because of elevated levels of cadmium detected in effluent sample that was released into foul drainage system. Level of increase detected was insignificant, EA issued written warning and posted onto public register. No enforcement action was taken. However improvements to the plant were suggested by EA and these improvements have been implemented. EA visited and are satisfied with improvements made. Quarterly monitoring of the system by the EA continues.

HSE/EA Enforcement:

Nil Enforcement

EMS Implementation:

All Sites have been third party accredited to ISO 14001 since Jan 2000. The programme is on going with six monthly surveillance visits, as required by the standard, carried out by British Standards Institute.

PROGRESS & SUCCESSES

DARA Business Manual continues to be improved, and includes the relevant SHEF information pertinent to DARA business. As previously mentioned DARA has implemented electronic accident/incident and claims management software, which allow DARA to effectively manage this area of the business. Corporate Governance Processes are well embedded into the business process with each site producing governance assurance report and includes SHEF performance in the period. The CE is conducting a year-end review of Corporate Governance in order to give an overall assurance of Corporate Governance for DARA.

AUDIT RESULTS:

All DARA sites retained their accreditation to ISO 14001in the period. External accreditation to OHSAS 18001 will commence shortly. Internal audit programme continues with no significant non-conformances being identified.

ASSURANCE ASSESSMENT

DARA has made much improvement to its system of internal control of recent years. SHEF and other Corporate Governance issues are discussed at Corporate and site level on a 6 monthly basis. The DARA Risk Manager chairs site level meetings, the Chief operating Officer chairs the Corporate (strategic) risk meeting. Strategic and Site Risk Registers have been developed which form the basis of the periodic review. The management Board is also informed by the results of internal and external audit. The results received indicate improvement in the management of Risk and provides DARA with a sound basis for continual improvement.

PRIORITIES FOR 2004-2005

- To ensure accreditation to OHSAS 18001.
- To implement a Web-Based electronic SHEF Mandatory Training package.

DEFENCE SCIENCE AND TECHNOLOGY LABORATORY (Dstl)

OVERVIEW

This report has been prepared by the Defence Science and Technology Laboratory's (Dstl's) Safety, Health, Environment and Fire (SHEF) Committee, on behalf of and with the knowledge of the Chief Executive who has responsibility for personnel health and safety, fire safety management and environmental protection within the Laboratory. The report summarises progress and statistics during FY2003/04 and is being used as the basis for setting Dstl's SHEF corporate objectives for 2004/05.

RISKS

Table 1: SHEF Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Major SHEF incident leads to loss of life or failure to protect environment from contamination by hazardous substances **Effect**: By the nature of the work that Dstl carries out, if there was to be an incident the impact is potentially significant. Whilst this is unlikely, this risk will always appear in the Dstl top corporate risks **Likelihood**: Low **Impact**: Fatality or serious injury Contamination of the environment **Risk category:** Environment, Health and Safety	**High**	Corporate SHEF team in place Detailed procedures and audit regime Training and awareness Good Laboratory Practice (GLO) standard applied rigorously	Owner: Dstl Main Board Managers: Head of Corporate Affairs, Head of Estates and Department Managers
Risk 2. Failure to ensure that SHEF risks are managed effectively at corporate level **Effect**: Approach to SHEF varies between departments. Fail to establish consistent and effective SHEF culture **Likelihood**: Low **Impact**: Failure to establish robust health and safety strategy and culture across the organisation **Risk category**: Health and Safety	**High**	Risk registers in place at both the department and corporate level. Formal mechanism for escalating and delegating risks is applied to ensure that SHEF risks are handled consistently across the organisation. Corporate SHEF objectives and action plan defined.	Owner: Dstl Main Board Manager: Head of Corporate Affairs

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 3. Fail to ensure that SHEF issues are addressed formally as part of the procurement process **Effects:** Products and services are not evaluated for their potential impact on SHEF related issues prior to acquisition. This could lead to inappropriate procurement decisions being made **Likelihood**: Low **Impact:** Excessive cost of managing SHEF activities due to inappropriate equipment or services being procured. Increased SHEF risk exposure **Risk category:** Health and Safety	**Medium**	The procurement process requires that relevant issues are addressed Dstl service providers have effective commercial systems in place to ensure that their sub-contractors are, in turn, well controlled	Owner: Dstl Main Board Managers: Head of Commercial and Head of Corporate Affairs
Risk 4. Failure to verify that Dstl departments (and tenants on Dstl controlled sites) implement effectively Dstl SHEF policy / rules **Effect**. If the implementation by the departments is not verified then there is the potential for lapses to go unnoticed, leading to increased exposure **Likelihood**: Medium **Impact**: Shortfalls in SHEF implementation are not identified and rectified. Ultimately, this could lead to an increased risk of a serious incident occurring **Risk category:** Health and Safety	**Medium**	An independent auditor carries out corporate audits. These include a SHEF checklist. Estates have developed an additional audit programme; to provide reassurance on estates related issues.	Owner: Dstl Audit Board Manager: Audit Manager
Risk 5. Unexpected ground contamination encountered during site redevelopment or site vacation as part of site rationalisation **Effect**: Dstl/MoD liable for contamination **Likelihood**: Medium **Impact**: Environmental clean up which will entail significant cost **Risk category:** Environmental	**High**	Risk is recognised by the site rationalisation project. However, scope to mitigate is limited to ensuring that appropriate evaluations are carried out in a timely manner and that effective process for handover is established	Owner: Dstl Main Board Manager: Head of Estates

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 6. Deployment of staff into war zones is not managed effectively leading to an increase in the potential for serious injury or loss of life. **Effect:** Theatres of war, by definition, place staff under greater risk than normally would be considered acceptable. If not managed this could lead directly to loss of life **Likelihood**: Medium **Impact**: Staff put at risk through proximity to military conflict. **Risk category:** Health and Safety	**High**	All Deployment into war zones is covered by suitable and sufficient risk assessments. Staff receive relevant training, are certified fit for particular operations, are provided with all necessary equipment and placed in the care of forces on the ground.	Owner: Dstl Main Board Managers: TCL (Op. Support) and Department Managers
Risk 7. New SHEF legislation has an excessive impact on core Dstl activities **Effect**: Introduction of new SHEF legislation compromising Dstl ability to deliver required service. Problem exacerbated by inherent SHEF issues associated with much of Dstl's activities **Likelihood**: Medium **Impact**: Dstl activities are curtailed or costs are increased substantially. Example is environmental legislation regarding site remediation – see risk 5. **Risk category:** Legal and Regulatory	**Medium**	Forthcoming legislation is identified as early as possible. Corporate SHEF team ensures that new legislation is implemented as effectively as possible.	Owner: Dstl Main Board Manager: Head of Corporate Affairs
Risk 8. Failure to manage contractor activities leads to significant incident **Effect**: Even though robust safety culture exists in Dstl this may not extend to contractors. Failure to manage contractor activities can, therefore, lead to increased risk of incident. **Likelihood**: Medium **Impact**: Risk of injury to Dstl staff and contractors and facility damage. Dstl retain ultimate responsibility **Risk category:** Health and Safety	**High**	Induction process for SHEF issues is in place for staff employed on a manpower replacement basis Unambiguous FM contract in place Procedures in place to vet/pre-qualify contractors Monitoring arrangements in place to verify performance Staff and management trained and aware	Owner: Dstl Main Board Manager: Head of Estates and Head of HR

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 9. Failure to manage amount of travel leads to increased potential for staff to be involved serious Road Traffic Accidents **Effect**: Staff spend an increased amount of time on travelling and are more likely to be sustain injury or possible death. Increased costs due to insurance, loss of time sorting out minor bumps. **Likelihood**: Medium **Impact**: Potential loss of life or injury. Increasing number of incidents (including during commuting to work) **Risk category:** Health and Safety	**Medium**	Dstl Management System implements MoD guidance on driving times, Dstl policy places requirements on drivers, for example use of mobile phones whilst driving on company business has been banned and all driving should be covered by a suitable and sufficient risk assessment Defensive Driving courses are currently available to drivers based on risk and this is being considered for all drivers in the future	Owner: Dstl Main Board Manager: Head of Corporate Affairs

Risk Management System: Dstl operates an integrated risk management system. Generally, SHEF risks identified in the Board-level corporate risk register result from an aggregation of Dstl departmental risks, though there may be occasions when significant risks can be identified more effectively at the corporate level. Table 1 is an aggregation of the principal SHEF risks identified against corporate objectives and operational risks identified by departments. The two areas discussed below represent important changes from last year's analysis.

Dstl Site Rationalisation: Dstl's site rationalisation plans have generated some risks. One is the possibility of unexpected ground contamination encountered during site redevelopment or site vacation, with associated cost implications and potential delays to the programme. Mitigation measures include the conduct of timely assessments. At Porton Down, where the risk is perhaps greatest, Defence Estates will work with Dstl on a programme of remediation to deal with legacy contamination issues.

A second risk identified in relation to the rationalisation programme is the possibility of more road traffic accidents due an increase in staff commuting to, or between, sites. Dstl already carries out risk assessments for all travel and has implemented policies to improve safety, such as the ban on mobile phone use (including hands-free) while driving on official business. Depending on their assessment of the level of risk, Departments have introduced defensive driving courses.

Deployments to Theatres of War: Operational risks have been higher than normal during 2003/04, due to Dstl support for Operation Telic. Dstl has had staff deployed to Iraq throughout the hostilities and they continue to provide support. As a result, a review of deployment procedures, and how well they worked, has been carried out to identify lessons and potential improvements.

PERFORMANCE

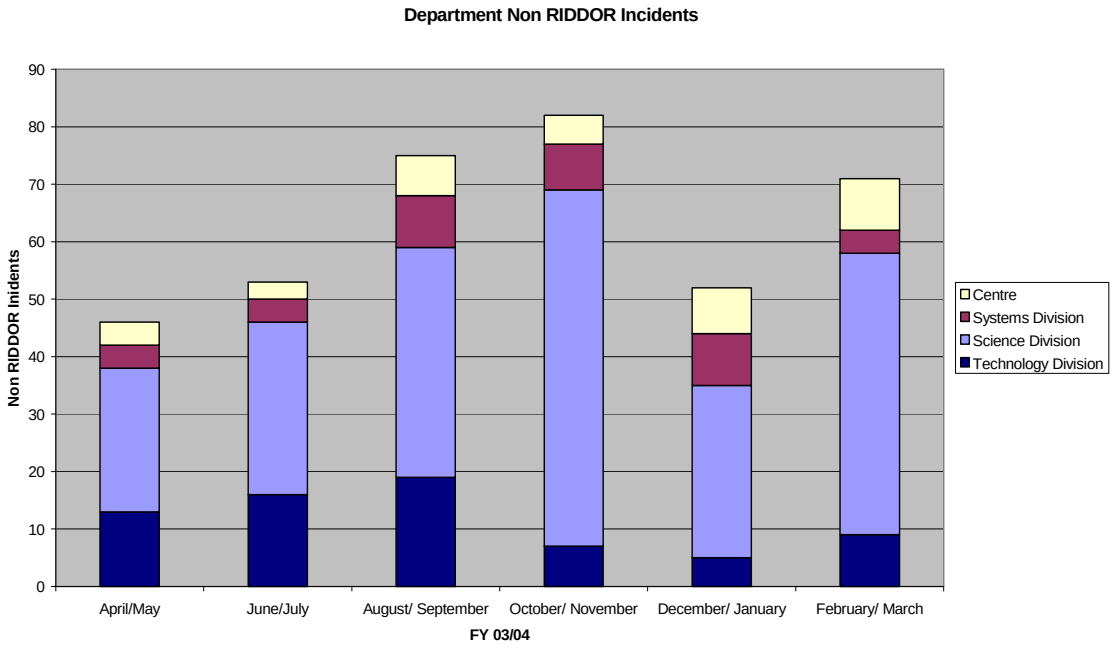
Fatalities due to Accident: there were no fatalities due to accident during the reporting period.

Operational & Training Fatalities and Incidents: Four incidents have been reported to the Health and Safety Executive under the Reporting of Injuries, Disease and Dangerous Occurrences Regulations (RIDDOR) 1995.

Trends in Accidents and Incidents: During the course of the last Financial Year, a total of 383 incidents involving Dstl staff and contractors have been recorded.
Of these:

- **4** were reported under the RIDDOR 1995 to the Health and Safety Executive.
- **330** resulted in minor injuries such as minor cuts and bruises, although some were formally investigated as the potential injury was considered greater.
- **49** resulted in no injury or damage ('near misses').

Annual Distribution of Dstl Non RIDDOR Incidents:



Comparisons with Last Year and Other Organisations:

Numbers of Dstl incidents compared with last year

	Fatality	Non Fatal Major	> 3 Day Absence	Total RIDDOR	Total Incidents
03/04	0	2	2	4	383
02/03	1	1	6	8	324

Number of incidents (expressed per 1000 employees)

	Fatality	Non Fatal Major	> 3 Day Absence	Total RIDDOR	Total Incidents
Dstl 03/04	0	0.62	0.62	1.24	118.39
Dstl 02/03	0.35	0.35	1.04	1.73	102.86
DERA 99/00	0			3.44	39.12
General UK 99/00	0.008			15.0	40

Dstl has established effective mechanisms for incident reporting and an environment in which it is encouraged. This accounts for the higher total number of incidents compared with DERA and the increase in Dstl figures from 2002/03 to 2003/04. This explanation is borne out by the 49 'near misses' reported and included in the total incidents figure for 2003/04, compared with 37 in 2002/03. The decreasing RIDDOR incident rate within Dstl and the lower RIDDOR rate compared with DERA and general UK statistics from 1999/2000 also support an improved reporting culture rather than decreasing SHEF standards.

Pollution Incidents: During the year, there was one pollution incident. On the 4 February 2004 an incident occurred at Porton Down in which a quantity of sodium fluorescein dry dye was disposed of through the domestic waste stream, and was subsequently collected by a waste contractor. Because of the weather conditions at the time, rainwater was able to infiltrate the contractor's vehicle and mix with the dry dye, creating a highly visible dye solution. The contractor took it upon himself to discharge the rainwater from his vehicle to the site drainage system and subsequently failed to fully close the vehicles drain valve.

As a consequence of this action the dye solution was deposited over a large area of the site. Because, on discovery, the origin and nature of this material was not known an expensive clean-up was initiated including the retention of the vehicle, the disposal by incineration of its content and the subsequent cleaning of remaining traces of dye. Subsequently a formal investigation was undertaken. Following this incident a notice was sent to all staff reminding them of the correct procedure to be followed when disposing of such items. The lessons learnt from this incident will be used to instigate further improvements to our systems and processes.

HSE/EA Enforcement: There has been no enforcement action from either HSE or EA.

EMS Implementation: Dstl is continuing to progress implementation of an EMS in line with government targets set in the 'Framework for Sustainable Development on the Government Estate' and those set out in the subsequent MoD Strategy. Efforts are being concentrated at the three main sites that will remain following completion of site rationalisation, namely, Portsdown West, Porton Down and Fort Halstead. The scope of the Dstl EMS has been limited initially to the activities, products and services of estates. Other areas of the Laboratory are being included within the scope only if their activities, products or services are

likely to significantly influence Estates activities and services and resultant environmental impacts. This staged approach has been adopted so that a simple robust EMS can be developed, which can be readily expanded once certification has been achieved.

Dstl Estates currently maintain an electronic management information system (EMIS) which contains an increasing amount of data about estate assets and Dstl's use of utilities. This system is seen as the heart of the Dstl EMS. An additional EMIS module is being developed that will allow competent assessors to record activities and, their associated aspects, and then rate environmental impacts according to likelihood and consequence. The module will also allow for recording of agreed management action for impacts identified as significant and allow reports to be generated that will facilitate management review.

PROGRESS & SUCCESSES

Improved SHEF Reporting to Dstl Main Board: Previously, monthly SHEF Reports to the Dstl Main Board have concentrated on incident reporting as the main performance indicator. This has proved useful to a point, but there has been a concern that areas with a good safety (and consequently reporting) culture were being highlighted for the wrong reasons. In addition, the reports did not highlight the improvement activities that were taking place.

During Financial Year 2003/04 it was decided to broaden the scope of the reports to the Dstl Main Board to include SHEF training and inspections, and key issues for discussion. This has resulted in a clearer identification of departments and sites with good SHEF cultures and those areas where more improvement can be expected. This is being used to develop SHEF targets for the coming year.

Specialist Hazards Co-ordination: Dstl carries out research involving a number of specialist hazards and, in the past, approaches to these kinds of work have been developed locally on a geographical basis. The current plans to integrate the organisation recognise the many advantages to be gained from consistent approaches and standards across the sites, and a structure has been put in place to drawing together SHEF practices in particular specialist areas across the Laboratory.

There already existed networks of specialist advisers on explosives safety and estates issues. These arrangements for co-ordination of standards in specialist areas have been extended to cover chemical, biological and radiation safety, occupational hygiene and handling dangerous goods. Specialist SHEF Advisers have been nominated to set up networks in all appropriate areas (including existing local and pan-Dstl working groups and committees where necessary), monitoring external standards, promulgating relevant information within Dstl, setting internal standards, monitoring competence of individuals involved in activities and monitoring of local process and workplaces. The specialists will report on a quarterly basis to the Dstl SHEF Committee, which in turn reports to the Deputy Chief Executive and Dstl Main Board.

Laser Range Activity: The decision was taken during the year to co-locate all Dstl laser range activity into one purpose built facility at Dstl Porton Down. Building work is well under way and provisional approval for the use of the facility has been received from MLSC, which will limit the requirement to have to get trials individually approved. Once commissioned (expected early autumn) this new facility will represent a significant step forward in the safe use of lasers in the outdoor environment.

Newlands Fatality Investigation and Management Action Plan: Although the external investigations into the Newlands (Shoeburyness) incident, which took place on 14 August

2002 are ongoing, the Dstl management action plan developed after the incident on the instruction of 2nd PUS has been implemented and formally signed off.

Explosives Facilities Audits and Inspections: Various audits and inspections have been carried out within Dstl by DOSG with very pleasing results:

> *"In summary, a very satisfying inspection and a positive attitude demonstrated to explosives safety. Those staff involved with the inspection process were eager to demonstrate the improvements that had been introduced in the reporting period. This demonstrated an encouraging trend of a positive culture to safety and a continuous process for improvement."*
>
> DOSG inspection report of Dstl explosives facilities - Dec 03

HSE Audits and Inspections: Dstl received a management audit, in accordance with HSG 65, focusing mainly on the biological areas and activities at Porton Down. Although the auditing team made minor observations, the overall tone of their findings was complimentary. HSE issued a preliminary report in December, which highlighted a number of actions. Dstl management has acted upon these; all but one have been closed and reported to HSE. The outstanding action requires negotiation with the HSE and consequently requires HSE action to complete closure. Currently, Dstl is waiting to receive the final report from HSE.

Estates: Developments have been made with Dstl Estates relating to "partnerships" with service providers. This has resulted in improved SHEF-related services and management of the estate, including energy management and fire service provision.

ASSURANCE ASSESSMENT

The third edition of the Dstl Policy Manual (November 2003) sets out the explicit responsibilities with regard to SHEF against each role in the organisation, and summarises policy, implementation, compliance and assurance responsibilities. As an integral element of its system of internal control, Dstl has an established corporate approach to risk management. A Risk Advisory Group chaired by the Deputy Chief Executive, who is Dstl's Board representative on risk management, has been put in place during 2003/04 to strengthen the arrangements for identification, assessment and reporting of risks throughout the organisation and the development of mitigation or recovery plans as necessary. The Dstl Main Board ensures that a co-ordinated corporate audit programme is implemented that will assure that Dstl activities comply with requirements, including those for SHEF. In addition to independent audit, the Dstl Management System has been subject to review by MoD and HSE, as well as internally.

PRIORITIES FOR 2004-2005

- Based on the new Dstl Main Board SHEF report format, corporate targets for SHEF based on incident reporting, corporate training strategy and corporate monitoring strategy will be introduced.

- Management of competence within SHEF community and across management in general will be reviewed.

- Since the last report, the uncertainty concerning Dstl's site rationalisation plans has been resolved, enabling more definitive plans to be made to consolidate activities at Portsdown West, Porton Down and Fort Halstead. Dstl SHEF staff will be working with departments, estates and others to provide advice in the planning and implementation stages, and also

reviewing the SHEF resources and capabilities that will be needed as the rationalisation programme progresses.

- Management responsibility for issues such as training, competence and risk assessment are well understood and implemented with Dstl departments. Work is planned for the coming year to record and manage these activities using a corporate database, thus giving them Dstl wide visibility.

MET OFFICE

OVERVIEW

The Met Office is a Trading Fund Agency currently employing approximately 1850 staff: approximately sixty percent at our headquarters site and the balance at some forty sites at various locations in UK and overseas. The Met Office has relocated the Headquarters and Operations functions to a new purpose built site in Exeter. The activities of the Met Office are principally office based, though some electronic engineering work is undertaken.

RISKS

Table 1: Health & Safety

Risk Summary	Impact / Colour	Management Strategies & Controls	Owners & Managers
Risk 1. Failure to comply with legislation and MOD policy **Effect**: Prosecution, loss of credibility **Likelihood**: Low, if management strategy in place. **Impact**: Loss of business.	Low	CE's Policy Statement Management system with identification of responsibilities and inspection regime	**Owner**: Chief Executive **Manager**: Head (Health Safety and Security.
Risk 2. Underdeveloped safety culture/lack of awareness. **Effect** Loss of time, particularly due to "RSI" type of injuries **Likelihood** Low **Impact** Cost to business – emerging claims culture	Low	Generally low risk office based working environment Monitoring through inspection regime Competent assistance and advice from Safety Team when required. The completion of DSE assessments for 80% of HQ staff by the end of 2003 was a business plan target for FY03/04	**Owner** Chief Executive **Manager** Head (Health Safety and Security)
Risk 3. Control of contractors **Effect** Failure to comply with legislative requirements Loss of operational capability **Likelihood** Medium **Impact** Loss of operational capability Inability to provide service to customers Loss of reputation	Medium	Adoption of Defence Estates Safety Rules and Procedures and Technical Bulletins as safe systems of work by the FM Contractors Close supervision by the Health, Safety and Security and Property Management Teams	**Owner** Chief Executive **Manager** Group Head Property Management

Table 2 Environmental

Risk 1. Non-compliance with environmental legislation **Effect** Prosecution Loss of credibility **Likelihood** Low **Impact** Loss of reputation	low	Introduction and maintenance of Environmental Management System Close supervision by the Health safety and Security and Property Management Teams.	**Owner** Chief Executive **Manager** Head (Health Safety and Security)

PERFORMANCE

Accidents:

Table 3: Fatalities and Accidents

Fatalities	nil	
Major Accidents	1	Cyclist fell from bicycle whilst crossing area under contractors control, fractured cheek bone. Likely to make claim against the Met Office
Serious Accidents/Injuries (>3 days off work, minor breaks, bad cuts, visits to A&E Depts, etc.)	4	4 RIDDOR reportable, all >3days absence
Minor Incidents (minor cuts, bruises etc)	54	
Near Misses (No injury but lessons learned)	nil	
Other	nil	

Pollution Incidents:

Nil

Operational & Training Incidents:

Nil

Trends in Accidents and Incidents:

- The trend, noted last year, of relatively young members of staff presenting with “RSI” type symptoms continues to give concern. Following the initiative to complete DSE assessments for all staff at our new headquarters, all staff indicating problems in this area on their self assessment form have been further assessed. Early indications suggest that there is a link with greater personal computer use/misuse by the young, at home school and university.

- A small number of cases of work related stress have been diagnosed. Making the assumption that a small number of identified and diagnosed cases could indicate a significant hidden problem, the significance of these should not be ignored. The relocation programme with its associated domestic upheaval to headquarters staff may account for this problem. The situation warrants careful monitoring.

HSE/EA Enforcement:

Crown Censures: Nil

Crown Improvement Notices: Nil

Crown Prohibition Notices: Nil

EMS Implementation:

- The EMS for the Old Bracknell HQ is being developed into the EMS for the new building. The decision has been made to pursue full accreditation to the ISO 14001 standard, with a target date by the end of the year.

PROGRESS & SUCCESSES

- Our new Headquarters building and Operations Centre in Exeter has been awarded the rating of "BREEAM excellent".

- The Safety Team have worked closely in support of the relocation programme providing specialist advice when required and participating in the exacting induction programme for staff moving into the new building

AUDIT RESULTS:

- The programme of inspections of all areas of the old building was completed some six months prior to the transitional phase to the New HQ.
- 26 non-headquarters locations both in UK and overseas were inspected.
- 5 areas of the new HQ have been inspected

ASSURANCE ASSESSMENT

Accident statistics indicate few serious accidents during the year, five being reportable to the HSE. Two of these were a direct consequence of the phased handover of the new headquarters buildings and resulting joint site working, i.e. sharing the site with our construction company.

The inspection programme has again indicated sound compliance of the frontline stations. Headquarters locations have appreciated the advice and assistance given during the induction process to the new building and have responded positively to health and safety issues within their remit.

PRIORITIES FOR 2004-2005

- Health and safety training, formerly conducted in house, is now outsourced to a local training provider. This will improve the quality and delivery of Met Office health and safety training.

- To implement an environmental management system for the new Exeter headquarters and operations centre and obtain ISO14001 accreditation.

UNITED KINGDOM HYDROGRAPHIC OFFICE

OVERVIEW

This report, prepared by the UKHO has been written against the objectives and targets detailed within the UKHO SHEF Action Plan for FY 2004-2004. Where management review and audit have identified gaps, hazards and shortcomings, these have been included in the SHEF Improvement Action Log.

During the FY a vast amount of facility improvements has been undertaken. These include a new roof and upgraded ventilation system to one building, an upgraded site wide fire alarm system, and a new purpose built facility to house the Archives.

A comprehensive access audit has been undertaken to establish the possible impact the Disability Discrimination Act full implementation in October 2004 would have on the UKHO.

RISKS

Table 1: Safety Risk Management

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. Litigation arising from unsafe working practices **Effect**: Litigation would demonstrate failure to meet the objectives of the SHEF action plan **Likelihood**: Low **Impact**: Medium **Risk category**: SHEF and budgetary	Medium	Monitoring and assurance – accident reports/statistics are reported monthly to the UKHO Board. Control/action – SHEF quarterly meetings, SHEF Improvement Action Log. SHEF action plan.	Owner: Head of Site Services Manager: OHSO

PERFORMANCE

Table 2: Fatalities due to Accident

Fatalities	Remarks
0	

Operational & Training Fatalities and Incidents:

Trends in Accidents and Incidents

	FY 2003/2004
Total number of accidents	30
Reportable accidents	1 (MH)
Working days lost	21
Cause	
Slips, trips and falls	10
Manual handling	6
Hit by object	4
Hit object	3
Other	3
RTA (bicycles)	2
Machinery	1
Chemical	1

FIRE

- A new fully addressable fire alarm system has been installed throughout the UKHO.
- All staff have undertaken the mandatory annual fire awareness training course.

Pollution Incidents: None

HSE/EA Enforcement: None

EMS Implementation:

- EMS is fully implemented within the UKHO. The evaluation of environmental effects to determine those that are the most significant is a key element of the UKHO's EMS. It serves to identify those aspects of our activities which require environmental management.
- The environmental action plan is included in the overall SHEF action plan.

PROGRESS & SUCCESSES

Actions listed in the UKHO SHEF action plan have all been completed.

ASSURANCE ASSESSMENT

SHEF issues are logged on the Corporate Improvement Action Log.
Accident reports/statistics are reported monthly through the Directing Team Meeting

PRIORITIES FOR 2004-2005

Complete all actions listed on the UKHO SHEF action plan for FY 2004-2005

PART 3 - REPORTS FROM FUNCTIONAL SAFETY BOARDS

SHIP SAFETY BOARD

OVERVIEW

- The Ship Safety Board (SSB), chaired by the Controller of the Navy, sets and oversees departmental policy for the management of material ship safety throughout the MOD. This year safety policy has been revised, a series of training seminars have been provided for material duty holders, the stipulated level of audit activity has been achieved and the certification in key hazard areas has reached a satisfactory level.

- The SSB is satisfied that overall the Fleet is in a materially safe state and that where deficiencies exist these have been identified and requisite action taken. This situation is reflected in the incident statistics this year; the RN accident rate continues to remain low, with 3 major and 8 serious injuries out of 29 reported accidents at sea this year, a record which compares favourably with equivalent UK merchant shipping. The rates of incident involving shipboard floods, collisions, groundings and ammunition incidents have all decreased, however, the rate of shipboard fire incidents has increased, after a reduction in 2002. There have been no significant pollution incidents.

- The SSB now also oversees diving safety throughout the MOD and following one diving related death last year and three the previous year the MOD Diving Safety Management Panel was established in May 03 to oversee diving safety. This panel works very closely with the HSE, reports directly to the SSB and has significantly developed diving safety policy and procedures. Regrettably, there has been one death during diving this year; an army diver while diving in a river in Germany. Action has been taken to revise army diving procedures following this accident. The SSB considers that the ongoing development of the Diving Safety Policy coupled with the introduction of the military diving safety management system is improving overall diving safety standards.

RISKS

Table 1: Categorised Risks

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk: Legal & regulatory. **Risk 1**. Some Duty Holders fail to comply satisfactorily with the policy requirements of JSP 430 (Ship Safety Management Code) by May 2005. **Effect**: MOD would fail to establish that all equipment safety risks are as low as reasonably practicable. MOD could be liable to censure should an incident occur. **Likelihood**: High **Impact**: Defence Policy, Reputation	Low.	The strategy for managing this risk has been to work with material Duty Holders to ensure that the policy is understood and to conduct regular audit activity to provide assurance that Duty Holders are working to comply. This activity has been supplemented by annual assessment to determine levels of risk of non-compliance within Duty Holder areas. This strategy has been successful and will continue to be utilised. Duty Holders have been informed of the results of the assessment to promote awareness of their responsibilities.	Owner: Ship Safety Board. Manager: Ship Safety Board.

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk: Incident Reporting. **Risk 2.** Minor accidents, incidents and near misses fail to be reported comprehensively. **Effect:** Feedback to the material Duty Holders is being lost, material shortfalls remain unidentified and opportunities to improve the material state of ships are lost. **Likelihood:** High **Impact:** Reduced corporate governance, increased cost in terms of material failure, personal compensation and injury.	Medium.	Reporting of incidents occurring in key areas is being achieved but, at a lower level information, is being lost. A revised process for reporting incidents at sea to a focal point in the Fleet Safety Management Office (FSMO) has been agreed in principal but the initiative has stalled due to a lack of funding for one full time post. The issue has been raised to the NSSEMB and alternative methods for setting up a focal point system are being actively pursued. A revised incident reporting system would also benefit Fleet in resolving procedural issues.	Owner: FSMO Manager: Ship Safety Management Office.
Risk: Safety Legislation. **Risk 3**. Duty Holders are unaware of new or imminent safety legislation. Summary – Equipment could be designed and built without full regard of legislation requirements. **Effect**: Equipment programmes may not comply with statutory requirements and programme delays could ensue. **Likelihood**: Medium **Impact**: Effectiveness, Equipment Acquisition	Medium.	A strategy, led by DS&C, for managing this risk has been implemented whereby "alerts" are transmitted to appropriate safety offices when new legislation is identified or introduced. The safety offices are responsible for determining the impact of legislation and communicating this to Duty Holders. The system is resource intensive however and its ability to function effectively is entirely dependent on expeditiously identifying legislative requirements or change.	Owner: D S&C. Manager: Ship Safety Management Office and DS&C.

DISCUSSION OF RISKS

- Risk 1. Work has been ongoing since the introduction of JSP 430 Issue 2 in May 2002 to ensure that material Duty Holders are cognisant of policy requirements. In particular, dedicated half day safety seminars have been held for IPT Leaders to emphasise safety policy and procedures. For desk level safety officers the Ship Safety Management Office has continued to sponsor a regular, five day course on safety and safety risk techniques and methodologies; these continue to be very well attended.

- Risk 2. Ship safety data must emanate from the Fleet and collecting the data is the first step in the process towards improving material safety. While a solution to the issue of poor reporting has been identified, progress in implementation is slow because of a lack of resource in the Fleet HQ. The Fleet and Ship Safety Management Offices are working together to establish the way ahead and resolve this issue.

- The "alert" scheme operated by DS&C will require review during the next reporting period to determine its level of effectiveness. Of note is that the Maritime and Coastguard Agency has a team of approximately eight people dedicated to legislation issues; the SSMO is maintaining close links with the MCA to share information wherever possible.

PROGRESS AGAINST LAST YEAR'S PRIORITIES

- Last year's report listed four priorities for work this year, three have been completed. In the case of the fourth, progress in the implementation of the 5 Naval Authorities anticipated for this year has not been as rapid as anticipated and full operation of these Naval Authorities is now planned to occur in 04/05.
- Last year's report made reference to the work planned to be undertaken as a result of the HMS NOTTINGHAM and HMS TRAFALGAR incidents and the Board can confirm that the Warship Electronic Chart Data Information System is now being installed in surface warships and submarines.

PROGRESS & SUCCESSES in 03/04

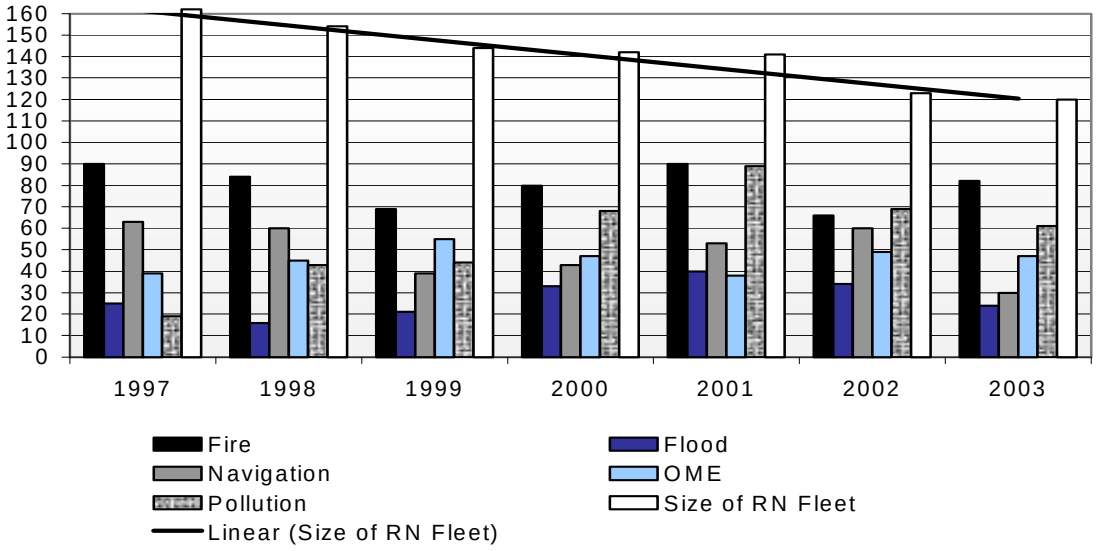
- JSP 430 "Ship Safety Management" has been improved. A new Part 3 containing Naval Authority Regulations has been issued. Development of a new Part 4 concerning the conduct of audits of material Duty Holders and Naval Authorities has commenced.

- Formal training, in the form of a half-day seminar, was introduced for material Duty Holders. The seminar was designed to raise awareness of Duty Holder's responsibilities in respect of ship safety management and the development of safety cases. The Ship Safety Board has fully endorsed this seminar and mandates that material Duty Holders attend this or an equivalent course.
- The development of Naval Authorities to provide regulation in key hazard areas continues to develop albeit at a slightly slower rate (because of staff shortages and the need to conduct a pilot study for submarine Naval Authorities) than anticipated. The publication of comprehensive Naval Authority regulations this year has clarified the operation of these authorities and the attendance of representatives from Fleet and a civilian Class Society (Lloyds) at the Development Group is proving most beneficial.

- The MOD Diving Safety Management System is now largely established. It has the full support and involvement of the HSE. The Superintendent of Diving reports directly to the SSB.

- The numbers of incidents this reporting period are: Fire 82, Floods 24, Navigation 30, OME 47, Pollution 61 and Diving 45 (which includes the fatality previously discussed). These headline statistics indicate a slight improvement in all areas except fire, they do not highlight significant cause for concern or untoward trends in safety standards

Chart 1: Fire, Flood, Navigation, OME and Pollution Incidents



ASSURANCE ASSESSMENT

- Targets for audit of the IPTs and the Naval Authorities have been met this year following a recruitment and training drive to fill 3 gaps in the Ship Safety Management Office. The Safeguage safety audit tool has again been used to assess the level of safety management activity within all maritime IPTs. Both audit and Safegauge results indicate that Duty Holders are actively working to comply with JSP 430 and that progress to meet the May 2005 deadline of compliance is satisfactory.

- For those Naval Authorities actively issuing Certificates of Safety, certification in key hazard areas is now at a satisfactory level. The certification details and status of 156 vessels are recorded and maintained on the Naval Authority System (NAS).

  - NA Stability: 87% vessels with CSS certification.
13% vessels without CSS certification
  - NA Structural Strength: 82% vessels with CSSS certification.
18% vessels without CSSS certification
  - NA Fire: 40% vessels with CF certification.
60% vessels without CF certification
  - NA Explosives: 62% vessels with CSMC certification.
38% vessels without CSMC certification

- For stability, structural strength and explosives, vessels without certification are either in refit, awaiting submissions to be agreed or do not require certification in accordance with Naval Authority regulations. The SSB is confident that all operational ships have appropriate in date certification or regulation.

- For Fire (a more recent Naval Authority) there is a programme to achieve full fire safety certification for the Fleet. While some procedural difficulties have come to light, which are being addressed, no significant safety hazards have been identified.

PRIORITIES FOR 2004-2005

The Ship Safety Board places a high priority on managing identified risks and:

- Implementing the final phases of the MOD Diving Safety Management System.
- Completing a full programme of safety audits of IPTs and Naval Authorities.
- aintaining intelligent regulation in key hazard areas by the established Naval Authorities. Achieving by the end of 2004 full operation of 5 of the remaining 7 Naval Authorities.
- Continuing to improve the ship/waterfront regulatory interface for ammunitioned warships alongside. A full time post in STG was established to lead this in August 2003.
- The reissue of JSP 430 containing consolidated SSB policy and clear and straightforward guidance and instruction for the implementation of safety case work, Naval Authority regulation and audit.
- Confirming, following receipt of incident reports from the Fleet, that appropriate action is being taken by Material Duty Holders to improve equipment safety thus reducing the chance of incident recurrence.
- Establishing the reason for the increase in the number of shipboard fires and ensuring appropriate action is taken to reduce the incidence of fire.

THE LAND SYSTEMS SAFETY BOARD

OVERVIEW

The Land Systems Safety Board provides top-level direction on safety policy and standards for Land Systems equipment and associated systems. These systems mainly involve armoured and support vehicles, communications systems, artillery and general equipment together with other equipment, such as simulators which support systems in other environments. This report covers the work and issues covered by the Board during 2003/04.

The Board has continued to recognise the importance of addressing the impact of forthcoming legislation and ensuring that systems are in place to ensure compliance where appropriate. Emphasis is now being placed to ensure that the relevant experience of systems and operations in service is taken into account not only by equipment support teams but by project teams that are developing solutions to new requirements.

RISKS

Risk Summary	**Impact**	**Management Strategies & Controls**	**Owners & Managers**
Risk Category: External / Legal & Regulatory **Risk 1.** Meeting relevant forthcoming legislation for vehicle emissions **Effect:** Further demands on vehicle and engine design. The increased reliance on electronic systems to reduce emissions is likely to impact on engine performance and increase operational risk due to either electromagnetic interference or the use of non-standard fuels. **Likelihood:** Medium **Impact:** Output Deliverables (Operational Effectiveness)	High	Activities undertaken by IPTs and other agencies are being co-ordinated to assess the impacts for future emission requirements. Legal advice has been received advising that military vehicles are disapplied from EU Emissions Directives. In these circumstances MOD policy is to meet all legislation So Far As Is Reasonably Practicable, and this policy aims to alleviate the potential conflicts between meeting legislation and operational capability requirements.	**Owner:** MGO **Managers:** LSSO / DPA / DLO
Risk Category: External / Environmental **Risk 2.** Assessing and meeting relevant forthcoming environmental legislation. **Effect:** Possible delay or modification to equipment procurement. **Likelihood:** Medium **Impact:** Output Deliverables (Operational Effectiveness)	Medium	Acquisition and Environment Safety Office has been formed to provide environmental guidance. JSP 418 is being rewritten and JSP 454 revised to include environmental guidance including severity definitions to describe the consequence to the environment. Legislation database has also been introduced to improve awareness of new and developing legislation.	**Owner:** MGO **Managers:** LSSO / DPA / DLO
Risk Category: Activity / Information **Risk 3.** Feedback of accident and incident information **Effect:** Inadequacy of information from systems in-service may lead to	High	The Army Incident Notification Cell has been established to record operational in-service information, and is being used as a prototype for a MOD-wide system.	**Owner:** MGO / COS Land **Manager:** CESO(A)

Risk Summary	**Impact**	**Management Strategies & Controls**	**Owners & Managers**
personnel and the environment continuing to be exposed to risks which could be foreseen. **Likelihood:** Medium **Impact:** Resource Management / Output Deliverables			
Risk Category: Activity / Information **Risk 4.** Lack of guidance on acceptance of military risk **Effect:** Possible impediment to introduction into service of equipment. **Likelihood:** Low **Impact:** Output Deliverables	High	Guidance to be developed on tolerable safety in military operation, and incorporated into JSP 454.	**Owner:** MGO **Managers:** LSSO
Risk Category: Activity / Information **Risk 5.** Standard of some Safety Cases are not sufficiently robust. **Effect:** Possible impediment to introduction into service of equipment. **Likelihood:** Medium **Impact:** Output Deliverables	Medium	Release to Service process to be developed for assessing the safety justifications of equipment due to enter service.	**Owner:** MGO **Managers:** LSSO

PROGRESS AND SUCCESSES

Successes during the year included

- the successful delivery of the final element of safety management training modules
- the 5th Equipment Safety Assurance Symposium
- the integration of the Legislation Database into the Safety Management System
- the renewal of the enabling contract to support managers across the acquisition community who have system safety responsibilities
- the completion of the year's audit programme, where 11 project teams were audited and given feedback

Progress has been made on a review of Safety Cases in preparation for providing further guidance to project teams. Additionally, a further version of the Cassandra Hazard Management Tool has been completed which addresses issues raised by users internal and external to MOD and hence delivers improvements in user interface and reporting areas.

ASSURANCE ASSESSMENT

Based on audits undertaken during the year, the safety of land systems equipment is judged to remain satisfactory. However internal review has identified the need for further refinement to the land systems safety management, to provide further independent assurance of the quality of the safety assessments. It is proposed to facilitate this by the introduction of a formal Release To Service (RTS) system.

PRIORITIES FOR 2004/05

During the forthcoming year, the Land Systems Safety Management System will continue to be developed by taking elements of best practice from other environments, together with the integration with the safety systems from those other environments wherever possible. This will include progressing the Release to Service system that will build on the proposals already made. It is also intended that the procedures for Land Systems Safety Management will be reviewed and, if appropriate, reissued during the forthcoming year, in parallel with the work already under way for developing the Acquisition Safety and Environmental Management System and revising Defence Standard 00-56.

DEFENCE AVIATION SAFETY BOARD

OVERVIEW

The Assistant Chief of the Air Staff chairs the Defence Aviation Safety Board (DASB) and its membership comprises representatives from aviation stakeholders and other Functional Safety areas. The Board meets twice a year and this annual report covers the year ending 31 March 2004.

The DASB has continued to steer the development of MOD Aviation safety policy and standards and monitor the continued effectiveness of MOD's aviation safety management arrangements. In doing so the underlying focus is aimed at continuing the downward trend in the aircraft accident rate towards zero. With around 60% of the remaining accidents caused by human error, the DASB has directed the Defence Aviation Safety Centre (DASC) to develop policies on Human Factor and Crew Resource Management training along with a Training Needs Analysis for all our flight safety training. Key milestones achieved have been the issue of the first edition of the Defence Aviation Safety Management System and a complete re-write of the Military Aviation Policy Regulations and Directives (JSP 550 series).

The area of risk of greatest concern to the DASB is that of aerial collision between a military and a civilian aircraft. UK airspace is becoming more crowded yet the majority of our aircraft are not fitted with the collision-warning systems mandated for their civilian equivalents. Although the DASB recognizes the imperative of current operations and the pressures brought to bear upon the Defence budget, it remains concerned that collision-warning systems have not been given sufficient priority to attract or maintain the required level of funding. Whilst the impact on operational capability from a single collision would be low, the damage to the Department's reputation would be high if we have used military exemptions to avoid investing in collision warning equipment that is mandatory for civil aircraft.

ISSUES AND RISKS

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk Category: External / Legal & Regulatory **Risk 1.** Increased risk of aerial collisions posed by the growing pressures on airspace usage. **Effect:** Increasing number of Airprox occurrences, aerial collisions. **Likelihood:** Medium **Impact:** **a.** Reputation, particularly if civil airliner involved. b. Output Deliverables (Operational Effectiveness)	High	a. Positive steps have been taken to ensure that due weight is given to the provision of Collision warning Systems on those fast jet aircraft most at risk. b. A robust system is in place for the pro-active management of improvement initiatives in the field of airspace management and the monitoring of the performance of the airspace safety management system	**Owners:** DMB, FLCs, DPA, DLO **Managers:** DCDS(EC) STC Air Cdre Battlespace Mgt.
Risk Category: Activity / Technological **Risk 2.** Inadequate consideration of potential safety enhancements when making investment decisions. **Effect:** Lost opportunities for reducing exposure to safety risks and avoiding the imposition of unwelcome limitations and conditions of use to control those	Medium	The Defence Aviation Safety Centre has developed a new safety enhancement methodology, which enables championing prioritised safety enhancements alongside requests for the innovative capability enhancements in the EPP.	**Owner:** FLCs **Managers:** D/DASC DCDS(EC)

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
risks. **Likelihood:** High **Impact:** Output Deliverables (Operational Effectiveness)			

PROGRESS AND SUCCESSES

The DASB continues to promote a greater awareness of the need to consider potential safety enhancements when making investment decisions.

The DASB noted that positive steps have been taken to ensure that due weight is given to the provision of Collision Warning Systems on those fast jet aircraft most at risk. Investment in this important safety feature is key to countering the increased risk of aerial collision posed by the growing pressures on airspace usage.

Good progress has been made over the year in tackling the DASB's priorities for improving the safety management of UK defence aviation activities. In particular, the following milestones have been achieved:

- The Defence Aviation Safety Management System was issued in June 2003.
- The Military Aviation Policy Regulations and Directives (JSP 550 series) were issued in July 2003, replacing the previous JSP 318 series of military flying, airworthiness and air traffic control regulations.
- The Airworthiness Competencies Set was finalised and published in December 2003.
- A Generic Aircraft Release Process has been adopted for new-build aircraft and a means to transfer legacy aircraft to this system is being developed.
- Close liaison has been conducted with the CAA to identify why Airprox incidents occur and identify and implement means of reducing such incidents.
- A Flight Safety Training Needs Analysis (FS TNA) Scoping Study has been completed to inform a FS TNA that has now commenced and will identify means to improve Flight Safety training.
- Aviation Safety Reviews (ASR) were successfully completed on the RAF Communications Fleet and the RN Jetstream Fleet, and the ASR process itself is now being reviewed to establish a more flexible and efficient systems based approach.
- The structure of the Defence Aviation Safety Board has been reviewed and restructured to better represent the interests of the MoD Aviation community.

OVERALL ASSURANCE ASSESSMENT

7The airworthiness of the UK military aircraft fleet is assessed as satisfactory. However, there remains much work to be done to reduce the impact on operational capability of decisions taken, in the light of cost and time constraints, to secure a satisfactory standard of airworthiness.

PRIORITIES FOR 2004-2005

The DASB strategy for the future is aimed at bringing the aircraft accident rate down towards zero. The number of aircraft lost to accidents over the last 10 years is 119. Noting the effect such losses could have on operational capability, there is clearly great benefit to be gained from investing in those initiatives with a potential for improving the airworthiness of the aircraft and/or the safety of their operation. As the complexities of more modern aircraft systems emerge, the challenge for the DASB is to seek a more strategic overview to identify those measures that yield the greatest benefit whilst being able to demonstrate that they are both affordable and realistically achievable propositions.

Whilst seeking measures aimed at improving aviation safety it will be important not to lose sight of the need for assurance that current aviation safety management arrangements continue to be effective. Furthermore, there is a need to ensure that defence aviation policy, standards and regulations keep pace with best aviation practice and facilitate the process of acquiring and sustaining operational capability.

The DASB priorities for FY2004/5 seek to achieve the following:

- Develop MoDs safety management approach aimed at driving the risk of aircraft accidents down below current levels.

- Develop a regime whereby the benefits of considering safety enhancement measures alongside other means of providing the capability required by the front line can be readily appreciated.

- Develop a more strategic overview of airworthiness policy issues for modern generation aircraft.

- Develop and implement the audit regime required to enable the DASC to provide assurance that aviation safety management arrangements are compliant with the Defence Aviation Safety Management system and continue to be effective.

- Establish and implement Human factors and Crew Resource Management training for aircrew and ground crew.

- Complete and successfully introduce the recommendations of the Flight Safety Training Needs Analysis.

The DASB endorsed initiatives for FY2004/2005 seek to achieve the following:

- Complete a study and make recommendations to improve the Airworthiness delegated chains of responsibility.

- Conduct a study to establish MoD policy on the use of Flight Data Monitoring.

DEFENCE ORDNANCE SAFETY BOARD

OVERVIEW

The Assistant Chief of Defence Staff (Logistics Operations) – Air Vice Marshal Smith, took up Chairmanship of Defence Ordnance Safety Board (DOSB) from Rear Admiral Mike Wood CBE Director, General - Operations (DLO) late last year. This appointment provides continued independence to the chairmanship of DOSB and a healthy linkage to top-level restructuring which continues across the Department. The Board's membership includes representatives from all TLBs containing Ordnance, Munitions and Explosives (OME) stakeholders across the MOD. The Board met in May and November 2003 and this report summarises the Annual Report made to the 10th Board which sat on the 12th of May 2004.

The DOSB is increasingly confident that major risks are being satisfactorily managed, in accordance with the principles of ALARP. The assurance processes of Audit, Inspection and the 145 % increase in certification from the Ordnance Safety Review Panels (OSRP) peer review process provide the underpinning evidence.

Evidence from Operation TELIC has highlighted the continuing need for investment in research into Whole-Life Assessment to improve stockpile management and has highlighted further opportunities for 'spend-to-save' investments.

ISSUES and RISKS

Table 1: Categorised Risks

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk Category Internal, Regulatory **Risk 1**. **Competence** Lack of evidence that technical competence is being maintained across the Department **Effect**: Reduced customer intelligence, increased potential for investment considerations to inadequately address safety in all acquisition phases. **Likelihood**: Medium to High **Impact**: Loss of MOD reputation; personnel, legal, operational[3]	Medium to High	DOSB's main strategy is OME Head of Profession project to develop OME occupational standards. Audit by the SMO. DPA's creation of Technology Assurance Group and introduction of DPA/DLO Assurance Dashboard should also assist. Development Partners initiative is an important strategy	**Owner**: DPA Technical Director **Manager**: ▪ OME Hd of Profession - competencies and Standards ▪ Safety Management Office Group – Syst. Safety competencies ▪ TLBs – competence & career management ▪ DESG ▪ DLO Heads of Specialisation

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk Category: Technology, Operational **Risk 2**. **Mature technology** Insufficient coverage of OME Safety Topics within the corporate Science and Technology (S&T) research programmes **Effect**: OME Technology falls behind associated defence technologies. Inappropriate limitations increasingly due to obsolescence, placed on operational flexibility. Failure to maximise military advantage **Likelihood**: Medium to Low **Impact**: Operational, Budget, Capital investment, Technological, Innovation	Med	A robust mechanism is being sought by DOSB to influence the scope of future S&T work programmes to include OME safety. Technology Route Map and Action Plan. Formation of Technology Assurance Group will assist implementation of strategies or controls required.	**Owner**: DOSB **Manager**: DEC's DG(R&T)
Risk Category: Operational Capability, Information **Risk 3: Whole Life Assessment**. There is a risk that, without the means to record the environmental conditions to which munitions have been exposed throughout their lifetime, they would have to be prematurely discarded under the precautionary principle. Thus, both safety and stockpile management efficiency may be compromised by the lack of asset tracking and consignment visibility systems. **Effect**: A continuation of expensive management actions including unduly excessive operational constraints (e.g. carriage hours), stock turnover, life-reduction and demilitarisation. **Likelihood**: Medium to Low **Impact**: Capital Investment; Budgetary; Technological; Innovation.	Medium to High	MCBU is leading development of a munition WLA Policy for MOD. Policy must be co-ordinated with relevant weapon ageing, asset tracking and consignment visibility projects (Management of Materiel in Transit (MMiT) and Management of the Joint Deployed Inventory (MJDI)). WLA project representing the munitions requirement in these projects. Environmental data loggers are a key technology in WLA but need integrated with asset tracking technology. Sponsorship of a single, converged munitions management system (the 'Munitions Management Solution' (MMS)).	**Owner**: DOSB **Manager:** MCBU
Risk Category: Operational Capability, Technology **Risk 4**. **Stockpile Vulnerability** Technology exists to reduce munitions vulnerability to unplanned stimuli, but is not always implemented **Effect**: non-IM Munitions are more hazardous when exposed to unplanned stimuli or enemy attack, reducing platform survivability. Non-IM have larger separation distances, reducing operational deployment options **Likelihood**: Low **Impact**: Operational, Capital	Med to High	A policy is in place that requires all new munitions, and all legacy munitions at mid-life-update, refurbishment or reprovisioning to apply Insensitive Munitions (IM) technology by 2010 No significant change from 03/04, incremental improvements in risk assessments rigour due to IM Assessment Panel (established 2002) which advises IPTs on investment opportunities.	**Owner**: CM(BM) **Manager**: JIMSG, all IPTs

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
investment, Policy, technological		Deviation from this policy requires 2-star approval, but this must link to the Ordnance Safety Review Panel in future. Joint Insensitive Munitions Steering Group (JIMSG) sub-committee is managing an IM implementation strategy.	
Risk Category: Project **Risk 5**. **Effective Management of OME Safety**Insufficient mechanisms to monitor performance of the SMS, in all areas of acquisition **Effect**: Inappropriate levels of OME safety management would result in Time, Cost and Performance penalties **Likelihood**: Medium **Impact**: Project, reputation, operational	Medium	Performance measures and targets to objectively assess the overall effectiveness of the OME safety management system are being developed as part of the DOSB strategic plan. The DPA/DLO's Project Review and Assurance, for IPT performance incl 'IPT Dashboard'. Delivery due this FY. Work outstanding in non-DPA/DLO areas	**Owner**: DOSB, DPA Technology Director **Manager**: Technology Assurance Group, IPTLs

Discussion of risks selected from table:

Risk 1- A new risk arising from concerns expressed by Board members over their difficulties recruiting specialist to undertake safety related tasks. Risk impact effected by the worsening demographics of many current post holders. These observations resonate with the conclusions of the DPA Stocktake. Attempts to identify a systematic approach to managing future skills needs within the Department have been unsuccessful.

Risk 2- No significant change from last year's report. However, a Technology Route Map is now under development to detail the strategies, action plans and controls required to mitigate the risk. Formation of Technology Assurance Group will assist implementation of strategies or controls required

Risk 3- The principal aim of the munitions Whole Life Assessment project is stockpile management and systems to minimise untimely, costly demilitarisation. A more accurate understanding of the environmental conditions individual munitions are exposed to is key to reducing current requirements to cycle the stockpile and thereby also reduce the logistics burden. The technology road-map for this work is now available and significant 'spend-to-save' opportunities are evident.

Risk 4- DESB's Sub-committee, JIMSG has completed its Insensitive Munitions Implementation Strategy (IMIS). The IM Insertion Plan (IMIP) has been expanded from 60 to 123 munitions, and now covers all HD 1.1 and the significant HS1.2/1.3 stores. The 2* IM Waiver process has also continued to develop, with signs of greater acceptance by IPTs of the underlying, simple intent to improve the IM signature of the inventory. The DOSB is keen to further integrate this policy into routine business within the wider Safety Case.

Risk 5- Since last year, work from the DOSB secretariat has contributed directly to the DPA/DLO 'Project Review and Assurance', of IPT performance (IPT Dashboard). This project will complete this FY but work outstanding in non-DPA/DLO areas.

PROGRESS & SUCCESSES

The DOSB's Strategic Plan and Targets matrix has undergone significant revision to supply a risk matrix and project action plan, to better focus the DOSB's activites. Ongoing MOD-wide work to develop performance measurement tools for robust and objective measurement of OME Safety Management and Safety Culture has been led by the DOSB.

Good progress has been achieved in developing National Occupational standards for OME and in joint initiatives with other Functional Safety Boards in joint training.

JSP 482 MOD Explosive Regulations formally superseded the single service regulations in January 2004. All UK and overseas MACR qualifying establishments have been assessed and endorsed except HMNB Portsmouth, Kings Lines Gibraltar, OFD Singapore (who are working towards compliance) and RAF Ascension Island which will be assessed in May 2004.

A number of key standards for environmental testing, proof policy and energetic materials testing have been updated. A DOSB-sponsored study to develop a taxonomy (structured methodology) for compilation of generic requirements for OME shows promise and wider application across many defence standards. Restructuring of several NATO committees this year saw streamlined UK input but an increased tempo of support.

Development of software tools this year has improved risk assessment for licensing and systems to improve management of certification are expected to increase assurance next year. Significant work in all DOSB sub-committees has seen key revalidation of policies, leading to harmonisation and improved levels of performance in many areas including land ranges, laser safety, storage & transportation, whole-life assessment and insensitive munitions.

EXPERIENCE FROM OPERATION TELIC

As stated in the January Report, the demanding operational tempo, during Operation TELIC, required large quantities of ammunition to be handled in a compressed timeframe. Recommendations from TELIC Lessons Identified include concerns of a potentially deep-seated lack in OME Safety understanding, stemming from restructuring in DPA/DLO and recent concentration on peace support operations, at the expense of war fighting and realistic training. Operations have underlined the necessity for the presence of senior in-theatre OME specialists throughout the line of communication in order to nip potential problems in the bud. Finally, better models are needed for operational storage and transportation, so missions are not artificially constrained by precautionary peacetime safety criteria. This is being addressed in conjunction with NATO Allies.

It became apparent during Op Telic that there were significant differences in the armed aircraft separation distances being employed by the RAF and USAF. The greater distances used by the RAF imposed operational restrictions on coalition airfields and were therefore identified as an OP Telic Lesson Identified. The reasons for this difference are being addressed aggressively by the DOSB community with some notable improvements already identified.

The majority of air-to ground weapons and countermeasure flares are constrained by air carriage hours that are at least an order of magnitude less than air to air weapons. In many cases the UK air carriage hours are less than the US hours for similar or even identical weapons. The supply and replacement of these short lived items introduces a significant operational cost therefore a lesson identified from Op Telic highlighted air carriage hours of

munitions as a major area for improvement. This is being addressed aggressively by the DOSB community.

OVERALL ASSESSMENT OF SAFETY ASSURANCE

DOSB is confident that major risks are being managed satisfactorily and in accordance with the principles of ALARP. However, the increasing pace of change and number of new initiatives is beginning to effect the ability to deliver and implement key OME policies. The assurance that the OME Safety Management System satisfies Departmental Safety Policies has been provided by:

- the OSRP peer review process increasing certification by 145%;
- the OME Safety Management System's Audit programme;
- weapon systems Safety Cases required by JSP 520, Issue 1.1.

A number of safety cases for UOR munitions were expedited by DOSG and platform regulators. Good examples of risk management were observed, with risks reduced and mitigated by carefully controlled safety procedures *(DOSB Annual Report).* The DOSB has been very active in representing MOD's interests in the development of a raft of new legislation relating to the management of explosives.

No reported high-consequence explosive incidents despite increased levels of munitions carried, remains one testament to MOD's explosive safety management

PRIORITIES FOR 2004-2005

For continuity, priorities have been carried forward from last year's Report. Over the next reporting period the following priority issues will be progressed:

- Support to Change Programmes: The DPA and DLO's Stocktake reforms and the unresolved recommendations from the 2002/3 Systems-Safety Process Review (SPR) and DESB's new Safety and Environmental Management Study (SEMS) will be addressed by DOSB.

- OME Policy & Standards: A major review of JSP520 will recommence this year and should conclude towards the latter half of 2004. The review will take account of lessons learnt from implementing the OME SMS and recommendations arising from the Systems-safety Process Review (SPR), SEMS and DPA Stocktake.

- **Whole Life Assessment of Munitions (WLAM):** The WLAM programme addresses stockpile management and through life safety issues. Important developments on through life cost and ageing models will assist OME IPTs and Industry to enable assessments at all stages of the project cycle. The programme reported to the 10th DOSB (May 04) momentum will increase next year.

- **OME Accident and Incident Reporting**: Further work will be undertaken to develop an 'implementation and mitigation strategy' with particular emphasis on how the current accident/incident reporting process can be converged for all three services and across the Functional Domains. In the long-term the intention is to provide a web-based database that can be accessed by all potential users.

- Learning the Lessons from Operation Telic: All members of DOSB will consider how findings and recommendations from investigations currently underway following Operation Telic, in Iraq impact on policy. Appropriate action will be taken to improve

safety and operational effectiveness, managed through additions to the new DOSB Strategic Planning Matrix.

DEFENCE NUCLEAR SAFETY BOARD (DNSB)

OVERVIEW

The safety of activities in the nuclear weapons and propulsion programmes remains among the Departments highest priorities. The Defence Nuclear Safety Board (DNSB) oversees policy, sets standards for, monitors, reviews and reports on all matters relating to the management of nuclear safety and environmental protection for all aspects of the nuclear weapons and nuclear propulsion programmes, including nuclear accident response. The DNSB met twice during the period of this report.

The DNSB co-ordinated and reported progress on the implementation of the Department's Nuclear Safety Study and completed a review of the recommendations from the Defence Nuclear Safety Committee (DNSC) 2001/2002 Annual Report to the Secretary of State.

RISKS

Table 1: Categorised Risks

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Risk 1. CORPORATE SAFETY CULTURE **Effect**: Delays to programmes. **Likelihood**: Medium **Impact**: Operational Availability **Risk Category:** Budgetary, Policy, Project	HIGH	While there are many areas of good safety culture, at the Corporate and Departmental level work continues to improve the corporate safety culture associated with the nuclear programmes and to demonstrate the characteristics of a "learning organisation".	Owner: Chairman DNPB Manager: WSA AD/NS
Risk 2. AUTHORISATION OF THE NAVAL REACTOR PLANT (NRP) **Effect:** Impact on availability **Likelihood:** Low **Impact:** Operational Availability **Risk Category:** Budgetary, Project	HIGH	Continue to implement NRP authorisation. Provide strong NPIPT support to BAESM Authorisation to enable demonstration of control of commissioning and plant operation at Barrow.	Owner: NPTL ASMTL BAESM Manager: NP TL
Risk 3. AUTHORISATION IN THE NUCLEAR WEAPONS PROGRAMME (NWP) **Effect:** Impact on demonstrability of safety **Likelihood:** Medium	MEDIUM	Continued emphasis on implementation of arrangements for the MoD regulation of the Nuclear Weapons Programme (NWP) leading to authorisation of the individual elements.	Owner: NWP Authorisees (Desig) Manager: NWP

Risk Summary	Impact	Management Strategies & Controls	Owners & Managers
Impact: Diversion of resources **Risk Category:** Budgetary, Project			Authorisees (Desig)
Risk 4. LEGISLATION AND REGULATION Changes to Legislation and Regulation places greater pressure to demonstrate safety performance **Effect:** Potential cost impact on the UK Defence nuclear programmes. **Likelihood:** Medium **Impact:** Legal challenges (ECJ), unplanned cost growth, facility programme delays. **Risk Category:** Legal and Regulatory, Environmental	MEDIUM	Departmental co-ordination, improved awareness and active participation in nuclear legislation/policy area. Dissemination of requirements. Development of co-operative and productive relationships with national and MoD regulatory bodies.	Owner: Chairman DNPB & NWP Authorisees (Desig) Manager: WSA AD/NS
Risk 5. NUCLEAR SKILLS SHORTAGE **Effect:** Insufficient qualified and experienced personnel to support the Defence Nuclear Programmes. **Likelihood:** Medium **Impact:** Inability to sustain aspects of the Defence nuclear outputs **Risk Category:** Personnel, Reputation, Operational	MEDIUM	Implement the Nuclear Suitably Qualified and Experienced Person (NSQEP) strategy The main focus is to fully determine the NSQEP requirement against Nuclear Functional Competencies, which will enable career and succession planning.	Owner: Chairman DNPB Manager: WSA AD/NS
Risk 6. FACILITIES Failure to provide new and/or maintain present infrastructure to meet the demands of the programme. **Effect:** Loss or prohibition of facilities **Likelihood:** Medium **Impact:** Erosion of capability, legal challenges to continue use, cost growth on upgrades **Risk Category:** Legal and Regulatory, Budgetary, Project	MEDIUM	Working with Regulators and Site Operators to ensure facilities are upgraded/ replaced in a manner that optimises resource demand whilst delivering the required safety improvement.	Owner: Chairman DNPB and NWP Authorisees (Desig) Manager: WSA AD/NS

DISCUSSION OF RISKS

Risk 1 - Corporate Safety Culture. It is increasingly recognised that the development of a sound safety culture is crucial, not only to achieving a high safety standard, but also to achieving strong business performance. A mature safety culture will improve affordability, reliability and availability. There are many areas of good safety culture across the nuclear propulsion and weapons programmes but at the corporate Departmental level many of the regulatory indicators of weak safety culture manifest themselves. This has been increasingly recognised and several initiatives are in place to build on this, strengthening the characteristics of a "learning organisation".

Risk 2 - Authorisation of the Naval Reactor Plant (NRP). The establishment of an NRP Authorisation team is beginning to produce significant progress with this initiative. Central Plant Control Authority has been identified as the NRP Authorisee's Operating Organisation and the boundary of the NRP has been defined based on the nuclear safety significance of submarine systems. Significant progress has been made in developing the scope and management framework for Authorisation. Nevertheless, this project still remains a major challenge and success will crucially depend on continued senior management support. Initially, the development of adequate arrangements to support NRP Authorisation will have most impact on the Astute build.

Risk 3 - Authorisation in the Nuclear Weapons Programme (NWP). The introduction of MoD regulation in the Nuclear Weapons Programme (NWP) has been a challenge, but positive progress has been made with all the protocols between Authorisees-designate, Approving / Design Authorities and the Nuclear Weapon Regulator (NWR) now signed. Authorisation is the chosen model for regulation, and programmes to achieve this will be pursued with vigour.

Risk 4 - Legislation and Regulation. Revised regulatory strategies are being developed, notably taking account of lessons learned from the D154 project. Joint regulatory strategies are being produced for major defence nuclear projects.

Risk 5 - Nuclear Skills Shortage. While there is currently no indication of a general shortage of Nuclear Suitably Qualified and Experienced Personnel, the evidence from the recent national Nuclear and Radiological Skills Study provides evidence of the need to ensure that longer-term solutions for the provision of Nuclear Suitably Qualified and Experienced Personnel (NSQEP) are implemented. The main focus is to fully determine the NSQEP requirement against Nuclear Functional Competencies, which are being developed for the defence nuclear programmes. This will enable career and succession planning initiatives to be implemented and training requirements to be determined. The recently licensed National Nuclear Sector Skills Council has been fully engaged to ensure that the Defence Grouping can benefit from the national initiatives.

Risk 6 - Facilities. Failure to maintain existing and/or provide new infrastructure to support the programme could result in loss or prohibition of facilities with the resultant erosion of capability. Work is ongoing to deliver an optimised approach to meet operational requirements.

PROGRESS AGAINST LAST YEAR'S PRIORITIES

Work has either completed or is continuing, as ongoing business, in the priority areas identified in last years report. The Defence Nuclear Propulsion Board (DNPB) now brings together all the major stakeholders in the delivery and operation of the Naval Nuclear Propulsion Programme (NNPP) and reports significant issues to the Defence Management Board (DMB). Through the attendance, at the DNPB, of Strategic Systems and Nuclear

Weapons IPT Team Leaders, the issues of Qualified and Experienced personnel, legislation and regulation for both the NNPP and Nuclear Weapons Programme (NWP) are addressed.

PROGRESS & SUCCESSES

- Significant progress has been made in implementing Nuclear Reactor Plant Authorisation.

- Development of regulatory strategy taking into account the lessons from the D154 project, particularly on D154 phase 3.

- Maintenance of a low level of personal radiation exposure across the NNPP through effective management arrangements.

- The introduction of MoD Regulation in the NWP is proving to be a challenge, but positive progress has been made. The principles for the application of MoD regulation at AWE have been agreed and a shadowing arrangement is being established.

- The first UK TRIDENT Operational Safety Review was completed in Feb 04, following the endorsement of the final report by the Trident Programme Group. The Review concluded that safety management arrangements remain effective and safety responsibilities for each element of the TRIDENT system are in place.

- A satisfactory performance in all nuclear accident response demonstration exercises, including Exercise DIMMING SUN 03, the largest joint UK/US accident response exercise ever conducted by the MOD.

- The Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR) has raised public awareness in relation to Z berth activities. MOD is continuing to actively support the local authorities in meeting their obligations under REPPIR.

- The continued technical challenge of Underclad Cracking (UCC) justification issues is being managed proactively by NP-IPTL.

ASSURANCE ASSESSMENT

The DNSB continues to have a high level of confidence in the safe operation and delivery of the defence nuclear propulsion and weapons programmes. This confidence is drawn from the application of the highest standards of design, construction, engineered safeguards, competence of staff in operation and maintenance, together with robust quality assurance and regulatory process, internal and external audits, inspections and exercises. Where these have identified issues or shortcomings, management attention has been focussed to ensure that these are resolved.

PRIORITIES FOR 2004-2005

- The DNSB places high priority on:

- The safe operation and delivery of the defence nuclear programmes.

- The continued development of Authorisation for the NRP and in the NWP.

- Continued development of management systems and corporate safety culture across the defence nuclear programmes.

- Management of nuclear skills, and to the sustainability of MOD's arrangements.

- The lessons learned from D154, already well addressed at Devonport, must be implemented for all defence nuclear activities.

- Development of defence nuclear incident notification arrangements to Defence ministers.

DEFENCE SAFETY HEALTH ENVIRONMENT AND FIRE BOARD

OVERVIEW

The Defence SHEF Board met twice during the year and took work forward in the main areas for which it is responsible: overseeing and approving the development of SHEF policy for the MOD, monitoring its implementation, and overseeing the scrutiny of emerging legislation.

RISKS

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Risk 1: The risk of failure to maintain sufficient commitment to SHEF across the MOD. **Effect**: dangers to MOD personnel and the wider public, risks to property and reputation, loss of operational capability, bad decision making and possible litigation. **Likelihood**: M **Impact**: loss of reputation, costs. **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	Medium	Raising awareness, particularly at senior levels; publicity for legislative developments, eg, corporate manslaughter, for the costs of accidents and environmental incidents, and for court cases arising from SHEF failures.	DS&C; SHEF Board and DESB members; TLBs
Risk 2: Interfaces with other organisations i) **Selling into Wider Markets** The risk that SIWM initiatives will be undertaken without proper consideration of SHEF risks. Effect: MOD involvement in activities without awareness of the extent of risks and potential consequences, leading to dangers to MOD personnel and the wider public, risks to property and reputation, loss of operational capability, and possible litigation. Likelihood: M **Impact**: harm to people and the environment; loss of reputation; compensation to partners/customers.	Medium	Specific guidance on SHEF issues being developed as part of wider examination of policy. Timing: SHEF guidance to be agreed and published by end of 2003/04.	DS&C for SHEF issues DWMPG for the subject as a whole TLBs
ii) **Control of contractors and partners** The risk of failing to meet responsibilities for the control of contractors and partners. **Effect**: could lead to Commanding Officers being exposed to litigation. **Likelihood**: M/H **Impact**: loss of operational capability; loss of reputation; costs.	Medium	Functional audit of Control of Contractors in progress. Audit of Regional Prime Contracting in Scotland proposed. Timing: early part of 2004. Outcome needs to be available in time to influence next round of prime contracts, Oct 2004.	DS&C DE TLBs

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
iii) **Responsibilities of COs under S4 of HASWA** The risk of confusion about where responsibility for a site lies following the introduction of Regional Prime Contracting and similar initiatives. **Effect**: possible exposure of COs to litigation. **Likelihood**: L **Impact**: on reputation, costs **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	Medium	New instructions on property maintenance management (DCI 102/03) issued by D SEF Pol and incorporated in JSP 375. Guidance on responsibilities of COs to be issued mid-2004.	DS&C DE TLBs
Risk 3: The risk that the condition of the built estate and demands on funding for Cat A1 and Cat A2 works could put MOD in a position where it is not complying with the law. **Effect**: unsafe working places, leading to the potential for accidents and injuries and possible litigation. **Likelihood**: H **Impact**: on reputation, costs. **Risk Category** legal and regulatory, liability, reputation, H&S, budgetary	Medium	TLBs to conduct formal risk assessments where they are unable to undertake the works required. Continuing action.	TLBs
Risk 4: The risk that failure to conduct adequate SHEF risk assessments may lead to wrong decisions. **Effect**: harm to personnel; non-compliance with regulations; inappropriate use of resources. **Likelihood**: M **Impact**: on reputation, costs. **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	Medium	Training, education, publicity.	DS&C TLBs
Risk 5: Legacy Issues i) the risk of damage to health or the environment from contamination. **Effect**: harm to people and the environment, bad publicity, possible litigation, remedial costs. **Likelihood**: M	Medium	Develop a strategy for guidance on risk management and public disclosure. Timing: by end 2004 DE paper on land outside the MOD estate being prepared for SHEF Board.	DE DS&C Managers: TLBs

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Impact: loss of reputation; possible costs. ii) the risk that maritime wrecks will pollute the environment or cause accidents. **Effect**: remedial costs, possible bad publicity, legal action. **Likelihood**: L **Impact**: loss of reputation, costs. **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	Medium	Remediation work in hand where necessary. Funding issue still to be resolved. DLO commissioned DIA to carry out audit: report sent to 2nd PUS and DCE WSA on 9 Feb. 2nd PUS to decide who should lead. New Scientific Risk Management Team in DG(S&A)'s area, dealing with risks where science has a significant part to play (specifically where there is a need for research or novel science), will also need to be involved.	Owner: tbd by 2nd PUS [
Risk 6: The risk of inadequate management and assurance arrangements for the control and accounting of radioactive materials. **Effect:** damage to reputation; legal claims **Likelihood**: M **Impact**: damage to reputation; cost of claims. **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	Medium	Implementation plans to be put in place for the recommendations of the Best Practice Review and audit of radioactive waste management.	DS&C TLBs
Risk 7: Changes to UK guidelines on non-ionising radiation to align with ICNIRP, introducing a lower tier for *public* exposure. **Effect**: loss of operational capability **Likelihood**: H (certain) **Impact**: costs; reputation. **Risk Category** legal and regulatory, [environmental], liability, reputation, H&S, budgetary	Low	Influence implementation; assess likely impact; measures to mitigate impact on operational capability. Timing: changes to guidelines March 2004 (Likely to be followed by legislation to implement Physical Agents Directive on non-ionising radiation, putting ICNIRP guidance on *occupational* exposure on a statutory footing: no change to levels. UK implementation of Directive: 2008.)	DS&C - policy owner DCSA - assessment TLBs - implementation
Risk 8: The risk that introduction of Integrated Risk Management Plans (IRMP) by Local Authorities could produce changes in the Fire Service response to 999 calls and their attendance to Automatic Fire Alarms (AFA), in England and Wales. *Similar changes likely within Scotland and NI downstream.*	Medium	Close monitoring of IRMP implementation and Local Authority action plans. Dialogue with Local Authorities and other relevant bodies (ODPM CACFOA) regarding their strategy for attendance to AFA. Develop Policy and Guidance to	DS&C DS&C DS&C

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Effect: Possible reduction in predetermined attendance of fire appliances to MOD establishments and requirement to verify cause of automatic fire alarm operating before attending. **Likelihood**: M **Impact**: on resources **Risk Category** legal and regulatory, liability, reputation, H&S		enable nominated MOD personnel to carry out assessment of cause of AFA's operating. Revisit FRAM assessments where Local Authority identify changes in times and weight of response.	 TLBs DS&C
Risk 9 Legislation i) The risk that unawareness of forthcoming legislation could leave MOD unprepared to influence it, or later unable to comply. **Effect**: possible adverse operational and financial impacts on MOD if implications of emerging legislation are not identified at an early stage. Ability to influence drafting may also be compromised **Likelihood**: L **Impact**: effect on output, reputation, costs. ii) The risk that MOD may be unable to comply with existing or expected legislation including: Physical Agents (Noise) and (Vibration) Directives Noise at Work Regulations 1989 **Effect:** risk to MOD reputation from enforcement action. Possible compensation claims if not complied with. **Likelihood**: M **Impact**: on reputation; costs. **Risk Category** legal and regulatory, environmental, liability, reputation, H&S, budgetary	 Medium Low	 Action taken to strengthen tracking process, including Project Manager to develop and manage the process and the related database. Continuing action. Functional policy areas to establish focus for specialised legislative issues. Wording of exemption for MOD being discussed with HSE. Ensuring band practice rooms are in accordance with best acoustic engineering practice.	 DS&C DPA DLO SMOs DS&C DE TLBs
Risk 10: The risk that a high level of road traffic accidents (RTAs), on and off duty, will lead to financial and other costs. **Effect**: avoidable loss of life; cost of claims.	Low	Implementation of recommendations of Army Wheeled Driver Training Study to reduce RTAs on duty, including TLB initiatives to improve driver training, in progress.	TLBs

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Likelihood: H **Impact**: on resources. **Risk Category** liability, reputation, H&S, budgetary			
Risk 11: The risk that poor reporting will give a misleading picture of the numbers, seriousness and consequences of accidents in MOD. **Effect**: difficulty in meeting Revitalising Health and Safety targets to reduce deaths and injuries at work, inability to learn lessons from accidents, and ineffective management of consequences. **Likelihood**: M **Impact**: loss of reputation; claims against MOD. **Risk Category** legal and regulatory, [environmental], liability, reputation, H&S, budgetary	Medium	I) TLBs to ensure reporting carried out in their areas. ii) Project to develop new reporting and information system. Timing: proposals noted by DESB Jan 2004. Business case to be drafted for IRIS Project Board approval and input to STP process.	TLBs DS&C TLBs DS&C
Risk 12: Failure to learn and communicate lessons from accidents at work, or from enforcement action following routine HSE inspections. **Effect**: the danger that accidents will be repeated. **Likelihood**: M **Impact**: loss of reputation and claims against MOD. **Risk Category** legal and regulatory, liability, reputation, H&S, budgetary	Low	Study into current system includes examination of scope for commonality of procedures for Boards of Inquiry and establishing a central register of reports. DESB paper to be revised and circulated to DESB out of committee. Target date: Summer 2004. To include: - a set of agreed principles that all BOIs should meet. - draft procedure for use by areas that do not have existing proven system.	TLBs DS&C
Risk 13: The risk that an adverse judgement in the European Court of Justice will say that the Euratom Treaty, or any part of it, applies to defence activities. **Effects**: **resources** – more administration and costs to produce data etc to the EC and to respond to their queries **security** – relevant data may be classified **international relations** – data may be subject to the 1958 agreement with the US.	No applic^{n}: Zero Some applic^{n}: Medium Full applic^{n}: High	Defend the UK line in Court – otherwise, watch, wait and brief upwards. Timing: ECJ likely to hear case during 2004.	DS&C - lead, WSA, NW IPT, NP IPT, CBRN, D Strat Tech

Risk Summary	Impact	Management Strategies and Controls	Owners and Managers
Likelihood: no application: L some application: H full application: L **Impact**: on resources, reputation **Risk Category** legal and regulatory, liability, reputation			

PROGRESS & SUCCESSES

The Board

- reviewed the progress of the Department's Land Quality Assessment programme, approved a target of 2007 for the completion of desk-top assessments covering the whole defence estate, and tasked TLBs to have programmes for desk-top assessments in place by April 2004.

- endorsed the MOD Sustainable Development Strategy and work plan, approved the TOR for the Sustainable Development Steering Group, approved strategies for business travel and water use, and approved an interim target for water consumption in MOD, all of which furthered the requirements of Sustainable Development in Government.

- endorsed proposals for a new incident reporting system (IRIS), following the NAO Report on MOD Compensation Claims, with the aim of improving knowledge of the numbers, seriousness and consequences accidents in MOD and the ability to learn lessons from them.

- approved changes to the system of property maintenance management in the MOD, with the aim of improving the management of the risks associated with the management of the defence estate under Regional Prime Contracting.

- noted that DS&C had set up a much improved system of legislation tracking, and monitored particular legislative proposals and related issues, including the Physical Agents Directive on Noise and Vibration.

- on radiological safety, approved a functional audit of the RA waste management system and directed the Radioactive Waste Working Group to develop a plan for the implementation of its recommendations, and considered the interim findings of the Best Practice Review with the Environment Agency of the management and control of radioactive materials and provided guidance on the proposed way ahead.

- Noted progress on the work on fire issues being undertaken by the Project Team progressing Fire Study 2000 and ASSP, and examined specific issues including ownership, funding, training and location.

ASSURANCE ASSESSMENT

On the basis of a comprehensive range of SHEF audits as set out elsewhere in the Report, and feedback from members, the Board is satisfied that key safety risks in the areas for which it is responsible have been addressed.

PRIORITIES FOR 2004-2005

The Board will focus on managing the core risks identified above. An action plan will be produced to enable risk managers, aiming for risk reduction, to set objectives and monitor progress.

Within this context the key areas of work will be:

- developing a set of overarching principles to ensure that accident investigations and Board of Inquiry processes, accident reporting, and arrangements to ensure that lessons are learnt are coherent across the Department.

- producing guidance to ensure that those with responsibilities on the defence estate, including Commanding Officers and those engaged in Selling Into Wider Markets activities, are clear what these responsibilities are.

- tracking and influencing proposed legislation, and other initiatives, with the aim of mitigating the implications for MOD. This will include monitoring the UK challenge to Reasoned Opinion from European Commission that the use of So Far as is Reasonably Practicable in the application of the Health and Safety at Work Act does not correctly implement the Framework Directive; moves towards the removal of Crown immunity from prosecution under the HSWA; proposals for an offence of corporate manslaughter; and the progress of the European Court of Justice towards a judgment on whether the Euratom Treaty applies to defence activities..

- sustainable development issues, including approving strategies to implement new targets (eg, bio-diversity, energy) arising from the Framework for Sustainable Development on the Government Estate, and reporting to [the DESB and] ENV(G) on the potential effects of Climate Change on MOD;

- regulatory issues, including deciding the way ahead on the final recommendations of the Best Practice Review with the Environment Agency of the management and control of radioactive material; reaching agreement with the EA on the annexes to the MOU between the Agency and MOD, and with SEPA on a separate MOU for Scotland; and achieving a satisfactory outcome to discussions with the HSE on the implementation of the Physical Agents Directives on Noise and Vibration, specifically the MOD exemption.

- approving a strategy for guidance on risk management and public disclosure in respect of contaminated land and legacy wrecks, and managing public consultation on proposed improvements to MOD aircraft noise compensation policy.