

Annex 2

MAA PROGRESS AGAINST HADDON-CAVE RECOMMENDATIONS

This Annex sets out the detailed comments summarising MAA progress against the relevant HC recommendations in the following order:

- The original Nimrod Report recommendation
- Secretary of State for Defence response (2009)
- MAA update (2012)
- MEAP comments

A NEW MILITARY AIRWORTHINESS AUTHORITY

Recommendation 21.A.1 - A Military Airworthiness Authority shall be established ... single regulator authority responsible for regulating all aspects of Airworthiness across the three services and DE&S and reporting direct to 2nd PUS.

SoS response - (Agreed in principle). The MAA will be established as recommended by Haddon-Cave save for an adjustment relating to the Release to Service Authority described previously.

MAA update 2011/12 – The MAA was established on 1 April 2010 as an independent, autonomous regulatory body for Air Safety in Defence. The equipment regulator, flight operations regulator and airspace management regulator have been incorporated. RTSAs remain within the single services.

MEAP comments – Recommendation completed. The MAA is established in accordance with the above response. Work to establish the new regime is core business. DG MAA reports to PUS.

Recommendation 21.A.2 - The Head of the MAA (the Regulator) shall be a full-time 3-Star appointment.

SoS response – A 3-Star military officer will be appointed as head of the new MAA in the New Year.

MAA update 2011/12 - Air Marshal Anderson (3 Star) was appointed as the DG MAA on 1st April 2010.

MEAP comment – Recommendation completed. The MAA Charter also includes reference to DG MAA being a 3 Star military officer.

Recommendation 21.A.3 - 'The Regulator shall be supported by co-located Technical and Operational Airworthiness Regulators at 2-Star level.

SoS response – The new 2-star appointments will follow shortly after selection of the 3-Star Director General. Work to find suitable premises for co-location will start in the New Year.

MAA update 2011/12 – DG MAA is supported by two 2 Star Directors; Dir Ops and Dir Tech.

MEAP comment – Recommendation completed. The majority of MAA staff are co-located at Abbey Wood, Bristol (see 21.A.10 below).

Recommendation 21.A.5 - The MAA shall facilitate and ensure a comprehensive, coherent, consistent and meaningful assessment of Airworthiness in terms of Risk to Life

SoS response - The MAA will be configured to focus on 'risk to life', a core role of the new MAA.

MAA update 2011/12 – 'Risk to life' is the core tenet of the MAA.

MEAP comments - At the Duty Holder levels the concept of air safety and risk to life are understood and appear to be embedded. The MAA recognises that work still needs to be done to enhance communications and further clarify responsibilities between duty holders and duty holder facing organisations as well as further embedding these concepts at sub unit levels.

Recommendation 21.A.6 - The MAA shall have a status comparable to that afforded to the CAA

SoS response - Like the Civil Aviation Authority (CAA) the MAA will be independent from and have airworthiness regulatory authority over, those that operate, design, manage and maintain the aircraft it regulates.

MAA update 2011/12 – The MAA is the sole regulatory authority responsible for regulating all aspects of Air Safety across Defence; it has functions equivalent to the relevant ones of the CAA. DG MAA performs the regulatory function across the military aviation community on behalf of the SofS. The status and authority of the MAA, and its DG, to act as the Regulator is enshrined in a Charter signed by the SofS for Defence on 31 August 2010

MEAP comment – Evidence indicated that duty holders and those with air safety responsibilities fully understand the role of the MAA, recognising its independence and authority.

Recommendation 21.A.7 - The MAA shall have direct authority over the Equipment Authorities and AOAs [for] all Airworthiness regulatory policy and compliance'.

SoS response -The MAA will exercise its authority through published regulation and auditing for compliance.

MAA update 2011/12 – The MAA is required by its Charter to regulate all aspects of Air Safety across Defence. This responsibility extends across the acquisition, operation, maintenance and continued/continuing airworthiness of air systems. This is confirmed in RPs such as RA1020

MEAP comment – Recommendation completed. The MAA has promulgated revised regulations. All duty holders and those with air safety responsibilities are made aware of the regulations and their requirements. The MAA conducts audits to establish compliance.

Recommendation 21.A.8 - The MAA shall have authority to determine appropriate Defence Standards and contractual requirements regarding Airworthiness with Industry

SoS response - The MAA will have authority over those Standards which are exclusively applied within the air environment. The MAA will assume responsibility for setting Defence Standards and contractual requirements regarding airworthiness with industry.

MAA update 2011/12 – The MAA sets appropriate standards for the design and airworthiness of service aircraft through Defence Standard 00-970 which lays out the requirements to be applied by MoD and the contractor as agreed in the contract. The MAA has the authority for issuing amending and enforcing regulations governing military aviation. The new MRP was issued on 1 July 2011

MEAP comment - The MAA confirmed that it now owns the relevant airworthiness Defence Standards – in particular Defence Standard 00-970. Evidence was produced showing MAA had provided feedback to a Project Team on contractual requirements – although the extent to which the MAA has assumed responsibility for setting contractual requirements was not established.

Recommendation 21.A.9 - 'The MAA shall be given appropriate financial, manpower and estate resources which shall be ring-fenced'.

SoS response - (Agreed in principle). The MAA will be allocated appropriate resources to fulfil its function. The head of the MAA will be responsible for managing his or her resources within the allocated budget, and he/she will be able to access the Departmental Planning Process in the usual way to effect changes to his budget.

MAA update 2011/12 - Through successive Departmental Planning Rounds (PR10 and PR11) the MAA has been allocated resources to conduct its business and deliver its objectives. Funding and manpower resources have been secured both through transfers from contributing MoD organisations, particularly DE&S and Air Command and the approval of enhancement packages necessary to establish the MAA's full organisational and programme requirements. However, work has had to be prioritized as resources have been released incrementally.

MEAP comment – The MAA is not currently up to cadre on numbers and has not reached full cadre since it was created.

Recommendation 21.A.10 - Located in a single geographic location entirely separate from the Equipment and AOAs, in order to re-enforce its independent status.

SoS response - A study into potential collocation options will now be conducted to identify an optimum solution, which allows the MAA to operate with independence, but also with efficiency.

MAA update 2011/12 – The final stage of co-location was completed in February 2012

MEAP comment – The majority of MAA staff are located at a single site at Abbey Wood, Bristol. There is a small HQ group based in Main Building and the MilAAIB are based in Farnborough alongside their civilian counterparts.

Recommendation 21.A.11 - The MAA shall be responsible for devising, drafting and promulgating a concise and logically structured regulatory documentation set'.

SoS response – Recommendation accepted. The MAA will assume responsibility for the airworthiness document set and will initiate a full review of the current regulatory set to meet the requirements.

MAA update 2011/12 – The legacy Military Aviation Regulation Document Set (MARDS) and airworthiness process Def Stans (05-122, 05-123 and 05-130) have been rewritten and reformatted as the MAA Regulatory Publications (MRP), published on 1 July 2011. The rewrite took account of global best practice in the regulatory field including nuclear regulation. The MRP is a single set of regulatory material focussed on risk-to-life and is applicable both to Crown servants and industry.

MEAP comment – Recommendation completed. The regulatory document set has been reviewed and restructured to cover requirements, acceptable means of compliance, and guidance. Duty holders indicated that the regulations are now easier to find and are more concise. Some regulations are now being updated as part of core business. The regulation set has been generally well received, although the initial surge of regulations resulted in a 'bow wave' of work for duty holders. The general view was that there now needed to be a period of consolidation. A number of key regulations dealing with roles and responsibilities are still being developed.

Recommendation 21.A.12 - The MAA shall be the higher authority for all mandatory reporting ... [and] have the authority to provide specific direction in the form of an Airworthiness Directive (AD) requiring immediate or particular Airworthiness management action'.

SoS response - The MAA will provide the higher authority for mandatory reporting; the Aircraft Operating Authorities (AOAs) will be responsible for coordinating and actioning Mandatory Occurrence Reporting (MOR). The MAA will have the authority to issue airworthiness directives.

MAA update 2011/12 – The MAA predecessor organisation (DARS) was already the higher authority for all mandatory (and voluntary) occurrence reporting. On 2 April 2009 the Aviation Safety Information Management System (ASIMS), a software based reporting tool was introduced for the Defence aviation community. It has continued to be developed and Version 2 was released on 17-18 September 2011. This update represents an extension and evolution of the system aligning it with the MAA Duty Holder construct, further increasing ease of use and enabling users to carry out more sophisticated analysis of the full spectrum of occurrences from accidents and incidents to hazards and observations

MEAP comment – Evidence confirmed that the MAA is now established as the higher authority for mandatory reporting. This is primarily (although not exclusively) done through the Air Safety Information Management System (ASIMS). This system, and the way it is used, is still work in progress. The team dealing with this in MAA have so far not been able to fully exploit the information on the system as a result of other priority work.

Recommendation 21.A.13 - The MAA shall put in place appropriate arrangements which permit Duty Holders in the AOA's to go beyond the bounds of the RTS to meet specific operational requirements ... '

SoS response - (Agreed in principle). The operational agility that Mr Haddon-Cave was seeking to enable is delivered through the refined RTSA arrangements - see Recommendation 21.A.4.

MAA update 2011/12 – RA 1020 caters for operational circumstances

MEAP comment – Recommendation completed. Regulations are in place to deal with these requirements (Regulation 1020 'Roles and Responsibilities: Duty Holder and DH facing organisations and Regulatory Notice 05/11 – 'Aviation Duty Holder responsibilities in operations')

Recommendation 21.A.14 - The MAA shall have a team of skilled surveyors who shall undertake regular compliance audits similar to those undertaken by the CAA, audits being over and above any self-regulation undertaken by the Equipment and AOA's'.

SoS response - The MAA will have authority to undertake compliance audits and we will seek to rapidly strengthen our compliance audit capability as it transfers into the MAA. We will also strengthen the self regulation in the equipments and AOA areas.

MAA update 2011/12 – The MAA has established an audit and inspection process defined in RN 02/11. Routine audits of the regulated community are carried out by appropriately trained and authorised MAA auditors. The MAA has developed a bespoke aviation auditor training course for its staff as well as using other specialist training as necessary

MEAP comment – Recommendation completed. The MAA has an independent and maturing audit process. MEAP looked at a sample of individual duty holder audit reports to confirm the approach and content. The Duty Holder reports are focussed at the 2 Star level and require Duty Holders to produce action plans that are agreed and tracked by MAA. One Duty Holder raised a concern about the length of time it took the report to reach the unit concerned. We confirmed that the MAA audits are now also looking at Duty holder facing organisations.

Recommendation 21.A.15 - The MAA shall undertake a specific 'flight safety inspectorate' role in furtherance of its Flight Operations regulatory function, with the actual delivery and deployment of Flight Safety being the responsibility of the respective AOA's.

SoS response - The MAA will have authority to undertake a flight safety inspectorate role from the outset. We will rapidly build the capability to deliver this as we transfer the manpower into the MAA. This inspectorate role will sit above the AOA flight safety inspectorate and review processes within the equipment area, and fulfil its role through system audit and sampling.

MAA update 2011/12 – The MAA monitors the Frontline Command (FLC) delivery of flight safety (FS) through direct desk-level intervention, analysis of incidents/occurrences reported via ASIMS, attendance at the Single Services FS forum, regular audit of the FLCs. The development of safety management systems has taken the MAA beyond the Flight Safety Inspectorate model. MAA has a wider remit, looking at a broader management of air safety but it does include the traditional FS aspects

MEAP comment – The Flight Safety Inspectorate principle was evident in the MAA approach to audits, other assurance activity and its attendance at DH Flight Safety Symposiums.

Recommendation 21.A.16 - The MAA shall be the Authority and sponsor for all Airworthiness regulatory training ... '.

SoS response - The MAA will assume responsibility, as the sponsor, for setting the requirement for all regulatory training. A comprehensive Training Needs Analysis (TNA) will be conducted to effect a requirement based change to training.

MAA update 2011/12 – The Air Safety Training suite is now owned and managed by the MAA as Training Requirements Authority for all Air Safety Training and alongside the Defence Academy as Training Design Authority for all courses.

MEAP comment – The MAA has conducted a comprehensive scoping study to identify general training needs, both internally within MAA and the Regulated Community and produced evidence of specific training needs analysis for the DHASC and AMAC courses. They are the Authority and sponsor for the Air Safety Training Suite comprising of 39 air safety related courses, (including DHASC). The MAA training cell cover external and internal training, competency development, and HR functional training. MAA sponsored training is focussed on a defined target audience. Duty Holders are responsible for ensuring that their staff are competent. This is an evolving area. Gapped posts in the MAA could potentially pose a risk to the future delivery of the internal air safety training.

Recommendation 21.A.17 - There shall be a direct two-way line of communication (bypassing the usual chain of command) between the responsible engineers employed in Airworthiness posts and the Regulator for all Airworthiness matters'.

SoS response - A system will be put in place to facilitate direct communication between the regulator and those in airworthiness posts.

MAA update 2011/12 – Detailed instructions are in place to cover this

MEAP comment – Recommendation completed. Evidence indicated that responsible engineers in airworthiness posts could directly communicate with the MAA if necessary.

Recommendation 21.A.18 - 'The definition of "Airworthiness" in JSP553 should be clarified and the Australian model of the three tenets of "Airworthiness" should be adopted.

SoS response - The JSP 553 definition of airworthiness will be clarified as part of the review of the regulation set.

MAA update 2011/12 – The definitions of airworthiness, air safety and flight safety were reviewed and the revised definitions were published in MAA/DG/RN/02/10 'UK Military Air Domain Safety Definitions' in October 2010

MEAP comment – Recommendation completed.

Recommendation 21.A.19 - "Letters of Delegation" shall be redrafted and renamed "Letters of Airworthiness Authority" (LOAA) in a simple form to make it clear that: (a) Airworthiness is a separate and discrete area of responsibility; and (b) the grant of Airworthiness authority is not an abrogation of responsibility for Airworthiness by the delegator'.

SoS response - In addition to letters of delegation issued across Defence by the 2nd Permanent Under Secretary as part of a well established safety management governance process, LOAA templates will be produced by the MAA and individual letters issued by the duty holders to cascade responsibility and authority from the Secretary of State for Defence downwards. The system will be in place before duty holders are formally appointed.

MAA update 2011/12 – The Letters of Authority have been issued

MEAP comment – Recommendation completed. Duty Holders and those with air safety responsibility indicated that they had received and understood such delegations.

Recommendation 21.A.20 - Non-executives from the CAA and HSE shall be appointed to the MAA Board

SoS response - Individuals with appropriate experience will be appointed on the MAA Board.

MAA update 2011/12 - Confirmed

MEAP comment – The current MAA Safety Advisory Committee fulfils this function. Although the CAA is not represented on MSAC, MAA is fully engaged with them via other routes.

Recommendation 21.A.21 - Suitable forums and mechanisms shall be established whereby the MAA can regularly discuss common issues with the CAA and the HSE

SoS response - Mechanisms for the MAA to interface with the CM and Health and Safety Executive (HSE) already exist, but will be enhanced and formalised. if acceptable to those bodies.

MAA update 2011/12 – The MAA has established strong links with the CAA and holds regular meetings both with the operational and technical divisions. HSE liaison and links are developed through the appointment on MSAC (see 21.A.20)

MEAP comment – The MAA confirmed that it has regular contact with the CAA. HSE is currently represented on MSAC.

B CLEARLY IDENTIFIED AIRWORTHINESS DUTY HOLDERS

Recommendation 21.B.1 - 'The MOD shall clearly identify three Duty Holders in each Air domain: at the top level; at the AOA level; and the unit level'.

SoS response - We will adopt the recommendation, but retain the flexibility to also nominate the Commander-in-Chief in the Duty Holder Chain to improve governance, where this is felt necessary.

MAA update 2011/12 – With the exception of ongoing changes due to Front Line Command reorganisation, Operational and Delivery duty holders have all been nominated

MEAP comment – Recommendation completed. The Duty Holder construct is established.

Recommendation 21.B.2 - Each Service shall appoint ... a Chief Air Engineer ... and ... a Senior Operator ... in each of the operating authorities ... to head the self-regulation of Operational Airworthiness and Flight Safety.

SoS response - All Services will appoint chief engineers and senior operators who will hold letters of authority directly from the corporate duty holders.

MAA update 2011/12 – Each Service Chief, as Senior Duty Holder, has nominated an SO and CAE. RA 1020 mandates a Letter of Airworthiness from the Duty Holder for the Chief Airworthiness Engineer. All ODH and DDH have assigned SO and CAEs

MEAP comment – Recommendation completed. Chief Air Engineers and Senior Operators have been appointed and authorised.

Recommendation 21.B.3 - Those in Duty Holder posts ... shall have Airworthiness responsibility and authority issued by decree by the MAA.

SoS response - Duty holders will have airworthiness responsibility and authority issued by decree by the MAA.

MAA update 2011/12 – Duty holder Regulation meets the requirement

MEAP comment – Recommendation completed.

C PROPER TRAINING IN AIRWORTHINESS MANAGEMENT AND REGULATORY SKILLS

Recommendation 21.C.1 - All holders of engineering Airworthiness posts (at SO2 equivalent and above) shall be required: (a) to have achieved professional status as Chartered Engineers; and (b) to have acquired appropriate experience in the Forward air domain'.

SoS response - Holders of engineering airworthiness posts will be qualified and experienced as recommended. The MAA will formally confirm engineering airworthiness posts at SO2 equivalent and above, and where necessary their job specifications will be modified to ensure holders have professional status as Chartered Engineers and have acquired appropriate experience in the Forward Air Domain.

MAA update 2011/12 – The requirement for engineering airworthiness postholders to have achieved professional status is set out in RA 1002 and for CAEs to have appropriate forward domain experience in RI/03/11. The airworthiness activity within PTs that requires individuals to have forward domain experience on aircraft will be detailed in the update to the MOD-wide Airworthiness Competency Set

MEAP comment – The requirements have been met, but some concerns were raised about what constitutes 'appropriate experience in the forward air domain' for civilian engineers and the degree of currency of military engineers. The MAA is aware of these issues.

Recommendation 21.C.2 - All personnel with Airworthiness responsibilities shall be required to undergo formal Airworthiness regulatory training, examination and periodic reassessment'.

SoS response - Work will commence in the New Year to develop the necessary courses and these will then become mandatory pre-employment training for ' personnel with formal airworthiness responsibilities.

MAA update 2011/12 – The introduction of the DHASC and the formalisation of the TRA for the Airworthiness for Military Aircraft Course fulfils the main requirement here. RA 1002 requires Aviation DHs, Commanders and PTLs to ensure that the training experience and qualifications of personnel involved in airworthiness activity are assessed and documented.

MEAP comment – Formal Airworthiness regulatory training courses are being delivered to a defined target group. Duty Holders are responsible for ensuring their staff are SQEP and competent and that they arrange to attend the appropriate courses. The MAA are aware of some sequencing and demand issues and this remains work in progress.

Recommendation 21.C.3 - The Chief Engineer and Flight safety/Operations specialists supporting the Duty Holders at each level shall be clearly identified and hold senior -rank'.

SoS response - Senior Chief Engineering and Operations specialists will receive formal letters of authority, clearly detailing their personal airworthiness responsibilities.

MAA update 2011/12 – SO/CAE all nominated. RA 1020 mandates LOAA from the Duty holder for CAE

MEAP comment – Recommendation completed.

Recommendation 21.C.4 - There shall be a review of manpower' in the IPTs to ensure that they each have sufficient numbers of suitably skilled and qualified Service and civilian manpower.

SoS response - As part of the Defence Acquisition Reform Programme, a review of Project Team manpower requirements will be conducted on behalf of the MAA.

MAA update 2011/12 – A tool to review all PT airworthiness tasks and availability of civilian SQEP has been analysed by the MAA and recommended to all DE&S Air System PT. This tool, or a suitable equivalent, is checked during PT audits

MEAP comment – SQEP currency remains an ongoing challenge. Most of the Project Teams seen indicated that they usually had sufficient people and resource, although this required constant managing and prioritisation. Where PT resources were tight this could impact on the time taken to respond to issues / requests from DHs etc.

Recommendation 21.C.5 - The Regulator's role in the appointment of senior Airworthiness managers ... shall be limited to ensuring compliance with the appointment/assessment process.

SoS response - The responsibility for appointing suitable personnel will remain with manning authorities and competition boards. The Regulator will be responsible for ensuring compliance with an approved appointment/assessment process.

MAA update 2011/12 – The MAA has specified SQEP requirements for IPTLs and Project Engineers through RI 05/11. The requirements for dutyholder Chief Airworthiness Engineers are set out in RI 03/11

MEAP comment – The MAA endorse the 'Airworthiness Competency Set'. RI 05/11 'Delegation of Airworthiness Authority (DE&S)', RI 03/11 'Chief Air Engineers' and RA 10/20 'DG Qualifications' set down the SQEP requirements. MAA authorise Operational Duty Holders, their Chief Airworthiness Engineers and the Operational Centre Directors in DE&S – they in turn ensure their staff are competent. MAA audits verify this as appropriate.

D PROPER SYSTEM OF MANDATORY REPORTING AND ANALYSIS

Recommendation 21.D.1 - All Maintenance Data Analysis shall be regulated.

SoS response - The MAA will establish a regulatory requirement for maintenance data analysis along with a realistic implementation window.

MAA update 2011/12 – The requirements have been enshrined in the MRP and specifically in RA 1410, the RA 4300 series, RA 4947 and the RA 5400 series. MAA/RN/08/11 includes CAMO and TAA responsibilities. To further reinforce the detailed data exploitation requirements in the MRP, RA 1140 requires ODH-approved Aircraft Technical Data Exploitation Strategies. These put the onus on TAAs and CAMOs to conduct coherent and effective collection, reporting, analysis and exploitation of technical data.

MEAP comment – Recommendation completed. The requirements for maintenance data analysis have been included in regulations. Data analysis remains work in progress.

Recommendation 21.D.2 - The Regulator shall provide independent analysis of maintenance data.

SoS response - The MAA will undertake independent maintenance data trend analysis.

MAA update 2011/12 – The MAA Assurance Programme will provide independent oversight of CAMO and TAA data exploitation. The new MAA operating model will strengthen the MAA oversight of this data and better enable an independent analysis of trends and cross-platform safety issues.

MEAP comment - Annex A to RA1140, indicates that 'the MAA requires immediate visibility of significant air safety issues and events, so that it can form a pan-Defence view and take action if necessary. The MAA also needs to be satisfied that DHs, TAAs, Design and Maintenance Organisations and other relevant organisations are collecting, analysing and responding to maintenance inspection findings and reported faults. This is achieved during routine MAA assurance and approval audits. The MAA are establishing the tools and processes to enable DHs to conduct their own trend analysis. MAA will have sight of strategic trends. .

Recommendation 21.D.3 - A pan-Defence reporting system shall be established as part of the regulatory framework, which shall include HF, MEMS and MOR, with the MAA acting as the higher authority for mandatory reporting.

SoS response - The MAA will provide guidance on the establishment of the regulatory framework for pan-defence mandatory reporting at IOC. The MAA will act as the higher authority, with the AOAs coordinating the activity and taking action where necessary. The implementation period will be determined by the MAA.

MAA update 2011/12 – Policy and regulation for a pan-Defence reporting system covering both occurrence reporting and error management has been published in the MRP. This defines the requirement for reporting, assimilation and action. The DAEMS Project has been implemented to provide the necessary training and support with a technical support contract funded by MAA for 2011-15

MEAP comment – Recommendation completed - although the processes and procedures are still evolving.

Recommendation D4 - HF(M)EMS to realise its full potential by –

i) There shall be an adequately resourced single dedicated IPT created to Implement a project [HF (M)EMS] of this scale across four different TLBs'. (Recommendation 21.D.4.1)

SoS response - An implementation team will be set up to implement an Error Management System (EMS).

MAA update 2011/12 – The DAEMS Project is being managed by a project team embedded in the MAA Ops Group supported by DAEMS Steering and Working Groups with Service Command representation. The MAA has allocated resource to support this work over 4 years

ii) There shall be a coherent Single Implementation Programme [HF (M)EMS] across all four TLBs'. (Recommendation 21.D.4.2)

SoS response - Whilst the regulator will mandate the requirement for an EMS, each AOA will be given latitude on how compliance is to be achieved, as each AOA needs to operate in a slightly different way.

MAA update 2011/12 – DAEMS will be a single programme through which ODHs will implement EMS using consistent processes and supported by common training and skills transfer through the Technical Support contract

iii) The Implementation Programme shall be properly resourced. (Recommendation 21.D.4.3)

SoS response - The implementation programme for the Error Management System will be properly resourced.

MAA update 2011/12 – Contract signed in August 2011 and will begin implementation in Sept 11. The necessary training and technical support packages are funded by MAA until 2015 to ensure the implementation programme is properly resourced and supported.

iv) There shall be adequate funding to implement recommended interventions. (Recommendation 21.D.4.4)

SoS response - Airworthiness risks will be given priority in the planning round, and the risk transfer and ownership process will be refined to meet the requirement.

MAA update 2011/12 - The effective exploitation of error management and the funding of interventions recommended as a result of investigations will lie with the single- Service Cmds and ODHs and, where necessary through the planning round. The effectiveness of exploitation etc will be assessed through the MAAs Assurance Programme. The MAA provides oversight of the planning round to provide assurance that Air Safety issues are given sufficient priority.

v) HF (M)EMS shall be extended beyond Engineering into a pan-Defence Error Management System (EMS). (Recommendation 21.D.4.5)

SoS response - The MAA will direct the implementation of EMS, as applied to engineering, for the services on a best practice basis. Wider applications of EMS beyond the engineering domain will be directed by the MAA.

MAA update 2011/12 – Policy and regulation for pan-Defence Error Management as published in the MRP covers all '4 worlds' (operations, engineering, air traffic management and other support activities). DAEMS will provide technical support to train up to 18 000 staff and EMS implementation. Pilot schemes have been run at RNAS Culdrose and RAF Lossiemouth to prove the concept for use within the MoD and the full contract was signed on 30 August 2011. Implementation began on 1 September 2011

vi) For successful Error Management there must be a commitment to cultural change at the highest level. (Recommendation 21.D.4.6)

SoS response - We have already launched a "Just Culture" programme and an error management pilot study, both aimed at fostering greater openness. We intend to build on both of these initiatives as the foundation of a strategy to improve reporting. We are determined to put safety at the heart of the Department's approach to operating its equipments and central to the manner in which all personnel approach their duties.

MAA update 2011/12 – Cultural change at all levels is a fundamental element of the MAA's work. 'Just culture' and error management are embedded in policy and regulation, taught on the DHASC and assessed through the MAA Assurance Programme

MEAP comment – An Air Safety Information Management System (ASIMS 2) is being rolled out across defence – this allows relevant air safety related information to be recorded and analysed to indicate trends. Separately a defence wide Aviation Error Management System (DAEMS) is also currently being rolled out across the '4 worlds' – this is the investigation system, the outcomes of which will be recorded on ASIMS. This remains work in progress as is the move towards a 'Just Culture'. The DAEMS Delivery Plan indicated that the DAEMS roll out will largely be completed by 2013.

E SINGLE SAFETY CASE AND SINGLE RISK MANAGEMENT SYSTEM that shows units trained and the forward plan to complete roll out

Recommendation 21.E.1 - The Regulator shall set the requirements for a single, concise, through-life "Risk Case" for each platform.

SoS response - The MAA will produce regulation and guidance outlining the requirements for platform risk cases.

MAA update 2011/12 – The safety case principles are set out in RN 04/11 and the role and function of the System Safety Case is described in RI 08/11

MEAP comment – Recommendation completed. Requirements are contained in regulations – principally RI 08/11 'Air system safety cases' and RN 04/11 'Safety case principles'.

Recommendation 21.E.2 - The MAA shall own the Risk Case. IPTs shall be responsible for keeping Risk Cases current.

SoS response - (Agreed in principle). Under the refined RTSA model, the MAA shall assure the initial safety Case and audit it continuously through the service life of the aircraft.

MAA update 2011/12 – The MAA does not own the safety case but continuous audit through the service life of the aircraft is normal MAA business under the process described in RN 02/11. The safety cases are created and maintained in line with RI 08/11

MEAP comment – The MAA engages with PTs as part of the initial safety case assurance process. Front Line Commands manage the safety cases via their ASMS processes, which in turn are audited by MAA. MAA also attend ODH ASSWG (as far as possible).

Recommendation 21.E.3 - A single Military Aircraft Airworthiness- Risk Register shall be established, comprising those equipment and operating risks that involve a Risk to Life, and using common criteria.

SoS response - The AOA duty holders will be responsible for the platform risk register covering equipment and operating risks.

MAA update 2011/12 – A common risk register has been mandated within RA 1210 for use across Defence Aviation to assess risk to life

MEAP comment – Recommendation completed. Operational Duty Holders hold platform risk registers. The extent to which there is appropriate consistency across all platform risk registers remains work in progress.

Recommendation 21.E.4 - The Regulator shall establish a common process for the management and regular review of all platform risks.

SoS response - New regulations are being developed for risk management. The MAA will mandate a common standard across Defence and ensure that it is being applied by conducting regular detailed audits.

MAA update 2011/12 – A process to review all platform risks is mandated within the duty holder RI

MEAP comment – Recommendation completed. This has been established in regulations – principally RA 1210 'Management of Operating Risk (Risk to life).

Recommendation 21.E.5 - The Regulator shall provide independent assessment of Defence Airworthiness risk management.

SoS response - The MAA will audit the Defence Risk Management process within the air environment.

MAA update 2011/12 - A process to provide assurance of Defence Aviation risk management is mandated within the dutyholder RI

MEAP comment – Completed and ongoing. The MAA indicated that its 2011 ODH compliance audits covered the risk management instructions.

Recommendation 21.E.6 - The Regulator shall undertake a review of the certification process for military aircraft in order to align the Airworthiness assurance processes used by the three Services and to establish clear lines of accountability for the design, manufacture of aircraft types, and continued Airworthiness of specific platforms.

SoS response -The MAA will audit the Release to Service Recommendations (RTSRs) for all platforms in future and will set the regulations for initial certification, as well for the continued airworthiness of the platform.

MAA update 2011/12 – MAA confirmed its intent to deliver a revised Military Aircraft Certification Process based on the principles of the EAS civil system in 2011 (MAA/RN/03/11). Following a study of the civil certification system, development by MAA certification specialists and engagement with the DE&S Airworthiness Team, the revised regulations were issued on 31 August 2011 in MAA/RI/07/11. This governs both the initial certification of military air systems and the certification of major upgrades and applies to all military registered aircraft. In parallel, related regulations supporting Type (Continued) airworthiness have been improved and issued in the MRP 5000 series.

MEAP comment - Regulation RI / 07/11 Certification of UK military registered air systems' provides direction. Regulations for continuing airworthiness are being drafted.

Recommendation 21.E.7 - The Regulator shall devise and stipulate a simple, common Hazard Risk Matrix which is to be used across Defence.

SoS response - Current risk matrix policy and guidance will be reviewed and amended as necessary, and then directed through regulation by the MAA.

MAA update 2011/12 – A 4x4 Hazard Risk Matrix is mandated in RA 1210 for use across Defence Aviation to assess risk to life

MEAP comment – Recommendation completed. This has been established in regulations – principally RA 1210 'Management of Operating Risk (Risk to life)'. It was noted that DE&S may use different risk matrices to align with industry but that a common matrix / language should be used when dealing with Defence.

F NEW JOINT INDEPENDENT ACCIDENT INVESTIGATION PROCESS

Recommendation 21.F.1 - The MAA shall be the single 'Convening Authority' for Service Inquiries for all aircraft accidents involving military aircraft and/or military personnel.

SoS response - The MAA will assume responsibility as the single Convening Authority for aviation Service Inquiries.

MAA update 2011/12 – This is enshrined in the MAA Charter

MEAP comment – Recommendation completed. DG MAA is the Convening Authority.

Recommendation 21.F.2 - The MAA shall establish a Joint Service Military Air Accident Investigation Branch (MAAIB).

SoS response - The existing military air accident investigation bodies will be brought together and an RAF capability added to set up a single Joint Service Military Air Accident Investigation Branch (MAAIB).

MAA update 2011/12 – The MAAIB was established in April 2011 and achieved Full Operating Capability in September 2011

MEAP comment – Recommendation completed. The MilAAIB is established and based at Farnborough alongside the AAIB.

Recommendation 21.F.3 - The investigation shall focus on two key areas: first, a technical/operational investigation by the Service Inquiry/MAAIB into the immediate causes of the accident; second, a detailed investigation into the wider aspects and implications of the accident.

SoS response - This process will be adopted and the existing in-house accident investigation teams will be augmented to ensure that we have the necessary capacity. The creation of the MAA will give the Department the ability to look at the wider implications of accidents across the whole of Defence.

MAA update 2011/12 – MAAIB SOP 3 details the format for MAAIB accident technical reports and the Service Inquiry Terms of Reference specifies the details of the investigation.

MEAP comment – Recommendation completed. The information obtained confirmed that MilAAIB investigation teams and Service Inquiries are able to focus on these two key areas.

Recommendation 21.F.4 - Presidents and members of Service Inquiries should have proper administrative, secretarial and legal support.

SoS response - Administrative, secretarial and legal support for Service Inquiry teams will be established within the MAA.

MAA update 2011/12 – Secretariat and Legal teams are established within the MAA Enabling Services to provide dedicated support

MEAP comment – Information obtained suggested that this was the case. HD MilAAIB runs a bespoke course for SI leads. It was noted that in order to provide support for service inquiries some staff had been deployed away from their normal day jobs longer than planned, impacting on these areas.

Recommendation 21.F.5 - The President and Members of Service Inquiries should ... retain the residual responsibility to confirm to the Head of the MAA in due course whether their Recommendations have been enacted correctly, adequately and in a timely fashion.

SoS response - One of the functions of the MAAIB within the MAA will be to ensure that Service Inquiry recommendations are robustly enacted and tracked.

MAA update 2011/12 – Due to the length of time a SI may run it is not practicable for SI Presidents or Members to retain this responsibility. The MAAIB will be tasked with this function.

MEAP comment – The MilAAIB has been tasked with this function. Information obtained suggested that this arrangement was effective.

Recommendation 21.F.6 - In any case where a Service Inquiry has to investigate the decisions or activities of the Regulator itself, the President of the SI shall report direct to the 2nd Permanent Under-Secretary.

SoS response - This will be included in the MAA charter.

MAA update 2011/12 – The ToRs for an SI include action to be taken if the Regulator has to be investigated. The post of 2nd PUS has been removed. PUS will assume all safety responsibility previously assigned to 2nd PUS.

MEAP comment – Information obtained indicated that should a conflict of interest arise with either the DG MAA (as SI Convener) or the MAA then the SI can be reconvened to report directly to PUS. This point is not included in the MAA Charter.

Recommendation 21.F.7 - The MAAIB should maintain a close liaison with other international organisations, both military and civil, entrusted with the investigation of air accidents.

SoS response - The MAAIB will review current practices for liaising with other military and civil investigation organisations.

MAA update 2011/12 – MAAIB is a corporate member of the International Association for Air Safety Investigators. Head of MAAIB has established links with US, European and Australian military and civilian colleagues and chairs the Defence Air Safety Investigators Forum

MEAP comment – Information obtained suggested that this is the case and is evolving.

G READABLE AND CONCISE AIRWORTHINESS REGULATIONS

Recommendation 21.G.1 - There shall be a complete overhaul and re-write of the current Military Airworthiness document set.

SoS response - A review of the military airworthiness regulation will start on creation of the MAA, and there will be a progressive rollout of the revised document set.

MAA update 2011/12 – see 21.A.11 above

MEAP comment – Recommendation completed. The regulatory document set has been reviewed and restructured to cover requirements, acceptable means of compliance, and guidance. A number of key regulations dealing with roles and responsibilities are still being developed.

Recommendation 21.G.2 - Airworthiness shall be defined as, and confined to, risks associated with Risk to Life and managed accordingly. Airworthiness shall be regulated and managed as a discreet and bounded discipline in its own right. Airworthiness regulations shall form a separate and discrete set.

SoS response - Under the governance of the MAA, the definition, regulation and implementation of airworthiness shall be directed and controlled across Defence.

MAA update 2011/12 – see 21.A.11 above

MEAP comment – Recommendation completed. Evidence suggested that Air Safety is regulated and managed as a discrete and bounded discipline – principally via the Duty Holder construct and MRP.

Recommendation 21.G.3 - The Regulations shall be re-drafted in clear, simple language and be as succinct as possible.

SoS response - Under the MAA-led review of the airworthiness regulations and document set, the approach will be to provide a clearer and simpler suite, which the MAA will continue to govern.

MAA update 2011/12 - see 21.A.11 above

MEAP comment – Duty holders indicated that the regulations are now easier to find and more concise. Many regulations are now being updated as part of ongoing MAA core business.

H COHERENT FLIGHT SAFETY MANAGEMENT ACROSS THE THREE SERVICES

Recommendation 21.H.1 - Each AOA shall establish its own Flight safety organisation ... The Regulator's role in Flight Safety management shall be that of central oversight...

SoS response - The need for AOAs to have their own Flight Safety organisations already exists or is being developed, and the MAA will also have a central Flight Safety team and function.

MAA update 2011/12 – All Operational duty holders have Flight Safety Organisations (as required in RA 1020). The MAA does not have a dedicated flight safety team and functions but provides oversight of the Operational Dutyholder FS teams through audit and also provides guidance and support to ODH FS teams exploiting occurrence and error management feedback data.

MEAP comment – Evidence indicated that whereas AOAs do have their own Flight Safety Organisations there appeared to be a variety of approaches being taken by different Duty Holders, with each Flight Safety Organisation being at a different stage of development. The general feedback was that MAA could consider providing more guidance on this subject.

Recommendation 21.H.2 - The Regulator will establish a clearer distinction between the disciplines of Airworthiness and Flight Safety.

SoS response - The MAA-led review of the document sets will provide clarity on airworthiness and flight safety.

MAA update 2011/12 – see 21.A.18

MEAP comment – Recommendation completed. The regulations provide clear definitions, although the extent to which these are fully understood at unit level is still evolving .

I CLARIFICATION OF INTEGRATED PROJECT TEAM RESPONSIBILITIES

Recommendation 21.I.1 - IPTs shall be responsible for issuing policy and laying down the boundaries for the continued Airworthiness of the Platform. The AOA shall be responsible for ensuring the platform is operated within the boundaries prescribed in the RTS.

SoS response - The role of the Integrated Project Teams (IPTs), now known simply as Project Teams, AOAs and Units will be specified and regulated by the MAA and enshrined in the reviewed document set.

MAA update 2011/12 – A summary of project team (TAA) and AOA (CAMO) responsibilities was issued as MAA/RN/08/11 on 11 July 2011. Responsibilities for Continued and Continuing Airworthiness of military air systems have been enshrined throughout the revised MRP (issued 1 August 2011). A comprehensive suite of regulation detailing the responsibilities of the CAMO for managing continuing airworthiness was issued as NPA 06/11 on 16 December 2011 in the RA4900 series.

MEAP comment – RN 08/11 Airworthiness roles and responsibilities for engineers has been produced to provide guidance on the roles and top level airworthiness responsibilities of key engineering post holders and organizations within the UK Defence aviation environment (e.g. PT TAA, AOA CAMO). Although PT, AOA, and unit responsibilities for continued and continuing airworthiness is still in development the issue of a suite of CAMO RAs is imminent. RN 09/11 ('DTECH') 'Continuing Airworthiness Management Organisation' provides interim guidance and a CAMO roll out plan.

Recommendation 21.I.2 - 'Where deviation from the Release To Service or maintenance policy is necessary due to operational or engineering reasons, the AOA shall have the authority to make its own decision as to whether or not the aircraft can fly'.

SoS response - (Agreed in principle). We shall preserve the extant procedures which permit operators to exercise their judgement in balancing risk against immediate operational needs. Where there is a requirement to operate beyond the Release To Service for any length of time, the refined RTSA arrangements we are introducing will enable the operational agility Mr Haddon-Cave was seeking, but with better governance.

MAA update 2011/12 – RA 1020 defines responsibilities for duty holders operating outside RTS

MEAP comment – RA 1020 (1) 'Roles and Responsibilities: Duty Holder and DH Facing organisations' confirms the arrangements. Some Duty Holders did not fully understand the role of RTSA or DAT.

Recommendation 21.I.3 - 'Unit level CAMO/HQ shall undertake all tasking functions necessary for maintaining the continued airworthiness of their aircraft'.

SoS response - (Agreed in principle). This recommendation has been accepted, but a scaleable solution may be required for some multi-Unit types.

MAA update 2011/12 – Unit level CAMOs are being developed under the guidance of the MAA-led CAMO steering group, informed by several pilot schemes. MAA/RN/09/11 issued on 14 July 2011 details the timeline and requirements to stand up the CAMOs. A comprehensive suite of CAMO regulation was issued on 16 December under NPA 06/11

MEAP comment – The roll out of CAMO and CAM will create a heavy and sustained workload and is work in progress.

Recommendation 21.I.4 - 'Each IPT shall have a designated and dedicated Project Engineer. Dual-hatting the IPTL as Project Engineer is undesirable and should be avoided where possible. The decision as to the designation of the Project Engineer should be made by those appointing the IPTL.

SoS response - (Agreed in principle). Appointment of Project Engineers will follow the principles proposed though it will need to be tailored to the individual projects' needs.

MAA update 2011/12 – The MAA has detailed the regulation for the appointment of TAAs (the replacement term for Project Engineers) in RI/05/11

MEAP comment – Recommendation completed. Information obtained suggested that dual-hatting the PT Lead as Project Engineer is not the norm, although in at least one PT the PTL is also the TAA. Information regarding the appointment of PT Project Engineers, and their endorsement by MAA (via a Letter of Endorsement) is contained in RI/ 05/11 'Delegation of Airworthiness Authority (DE&S)'.

J RESTORATION OF THE CHIEF ENGINEER

Recommendation 21.J.1 - Each service shall appointment a Chief Engineer to ensure support for the AOA Duty Holders and to ensure the Airworthiness of platforms and regulatory compliance.

SoS response - Each service will identify and appoint an appropriately qualified and placed individual to fulfil this role. A post will be created by the British Army to enable it to comply with this recommendation.

MAA update 2011/12 – Service CAEs have been nominated and there is a Regulatory Instruction on CAE qualifications

MEAP comment – Recommendation completed.

ADDITIONAL RECOMMENDATIONS REGARDING RISK CASES

Recommendation 22.1 - 'The Safety Case concept should be retained by the MOD, provided it is brought in-house, slimmed down, and made consistent ... there should be a single, concise, through-life "Risk Case" for each platform owned by the Regulator, and backed up by a single Risk Register'.

SoS response - (Agreed in principle). The term Safety case will be retained since it is widely used and well understood across Defence and the civil sector. and the use of the term "risk case" could cause confusion. Duty Holders will own the Safety Case 'in-service' and the Haddon-Cave principles for the compilation of the Safety Case will be adopted. The MOD will take ownership of the process of compiling safety cases, based upon design evidence provided by the equipment manufacturer. mandatory occurrence reports, in-service fault data and human factors information. safety cases will be independently assured, and the processes by which they are compiled will be subject to audit by the MAA.

MAA update 2011/12 – see 21.E.2

MEAP comment – The term Safety Case has been retained. RI 08/11 'Air System Safety Cases', and RN 04/11 'Safety case principles', contain the main MAA guidance on safety cases. The MEAP did not examine in detail the extent to which safety cases have actually been 'slimmed down' and made consistent. Information obtained suggested that greater clarity may be required to determine the ownership of safety cases at the design safety case stage and operational safety case stage.

Recommendation 22.3 - "Risk Cases" should henceforth be drawn up and maintained in-house by the Regulator/Services and not outsourced to industry.

SoS response - (Agreed in principle). The term Safety Case will be retained; Duty Holders will own the safety Case 'in-service'. The Haddon-Cave principles for the compilation of the Safety Case will be adopted however, although the MOD will still rely upon industry to provide the initial design safety case.

MAA update 2011/12 – The relevant RN/RIs specify the requirements for safety cases and their maintenance. The dutyholder RA defines dutyholder ownership of the safety case. The safety case principles go further than the SofS response here to meet the 'through life' requirement

MEAP comment – Regulation completed. .

Recommendation 22.4 - Front Line maintainers and operators should have a major role in drawing up and maintaining "Risk Cases".

SoS response - Ensuring that front-line maintainers and operators have a role in drawing up and maintaining risk-cases will help to ensure that all aspects of operating a platform are considered when evaluating risk.

MAA update 2011/12 – This is set out in the safety case RI. Duty holders are required to engage pan-DLOD and with platform operators to maintain the safety case

MEAP comment – Evidence indicated that front line maintainers and operators are increasingly involved in safety cases but that it is still an evolving area.

Business Procedure (BP) 1201 and other relevant regulations should be redrafted to reflect the principles relevant to "Risk Cases" outlined above (Recommendation 22.5).

SoS response - Regulations relating to risk cases will be given priority in the planned re-write of regulations.

MAA update 2011/12 – The basic principles have been published in RN 04 and the instructions in RI/08/11. The UK Defence Air Domain may take time to adjust to the new principles and instructions

MEAP comment – Regulations dealing with safety cases are in place but we agree with the comments from the MAA about the time it may take the UK Defence Air Domain to adjust to them.

The definition of a Safety Case in Defence Standard 00-56 should be replaced with the following simple definition of Risk Case: "A Risk case is reasonable confirmation that risks are managed to ALARP". (Recommendation 22.6)

SoS response - This recommendation has been accepted as applicable within the air environment, although we shall retain the term safety Case. Defence Standard (Def Stan) 00-56 will be included in the re-write of the airworthiness document set.

MAA update 2011/12 – Def Stan 00-56 will include this when re-issued

MEAP comment – Included as part of the regulations.

AGE MATTERS – AGE AND LEGACY AIRCRAFT

Recommend that the MOD ensures that greater consideration is given to the age matters ... (Recommendation 23.1)

SoS response - Regulations have been amended to reflect the need for an improved system of management of issues concerning ageing aircraft. Programmes have been initiated for aircraft that meet the new criteria.

MAA update 2011/12 – Existing regulations have been audited against the HC lessons and RA 5720 specifies those activities required to achieve and maintain structural integrity for aircraft operated within the Military Air Environment, specifically: rreview/improve AA Regs; sponsor and develop a programme of research 'Understand ageing Aircraft'; establish Ageing Aircraft programmes sustainment activity.

MEAP comment – Ageing aircraft issues are being considered by Duty holders as part of their risk management. Specific regulations dealing with this issue are also RA 5723 'Ageing Aircraft Audit' and RA5724 Life Extension programme'. There is now a better oversight of all aspects of ageing aircraft issues via the Ageing Aircraft Programmes Working Group (AAPWG). This has allowed research to be better targeted e.g. on corrosion. Previously the focus was more on structures than systems, although this is developing. The assurance role of MAA is still evolving, but is resource limited.

The majority of the recommendations from this point on are part of the MOD's Wider Aspects work and fall outside the MAA remit.

NEW PERSONNEL STRATEGY

'... careful consideration is given to ... weaknesses [in the area of personnel within Airworthiness] and a New Personnel Strategy formulated which addresses each of them'. (Recommendation 24.1).

SoS response - (Agreed in principle). Where the identified weaknesses relate specifically to the provision of aircraft engineering skills for safety tasks, they will be addressed in the implementation of Mr Haddon-Cave's core recommendations on new structures for airworthiness and regulation, but they also need to be coherent with wider departmental personnel strategy.

NEW INDUSTRY STRATEGY

Careful consideration should be given to the ... problems and the formulation of a New Industry Strategy which addresses them'. (Recommendation 25.1).

SoS response - (Agreed in principle). As part of the Defence Acquisition Reform Programme, work is being put in hand next year to re-examine our relationship with industry as a whole, including a review of partnering generally, and a specific post-Nimrod Review work strand on the arrangements for safety cases. We will include safety in our Key Supplier Review process and review our standard contractual terms and conditions to ensure they deliver safety effectively.

The MOD should identify the key skills and experience which are required to ensure that it is an 'intelligent customer' when dealing with industry (Recommendation 25.2)

SoS response - A review of the role of personnel, including particularly military personnel, in acquisition will be undertaken to ensure personnel with the right experience, skills and confidence are developed to act effectively as intelligent customers.

MEAP comment – Although this falls outside the MAA remit and sits with the MOD 'Wider Aspects' workstreams, our overall assessment is that the ability to achieve and maintain SQEP will remain a challenge. The extent to which acquisition personnel are effective as intelligent customers when dealing with industry was not ascertained.

'The MOD should seek repayment of the cost of the Nimrod Safety Cases 1 and 2 from BAE Systems'. (Recommendation 25.3).

SoS response - (Agreed in principle). This recommendation is accepted in principle and is being addressed by our commercial and legal staffs.

'Paramountcy should be given in the future to arms-length contractual clarity'. (Recommendation 25.4).

SoS response - (Agreed in principle). The requirement for 'contractual clarity' is fully supported. MoD, in taking forward its Strategy for Acquisition Reform (to be published early in the New Year), will look at the boundaries between industry and the MoD, including our approach to partnership arrangements. This will help set the context for a refresh of our Industrial Strategy as part of the Defence Review in the next Parliament.

NEW PROCUREMENT STRATEGY

Mr. Bernard Gray's Report is published without delay and appropriate action taken as a matter of urgency with a view to formulating and implementing a New Procurement Strategy. (Recommendation 26.1).

SoS response - (Agreed in principle). The Gray Report was published on 15 October 2009 and a Strategy for Acquisition Reform is being prepared for publication in the New Year.

NEW SAFETY CULTURE – ADDITIONAL RECOMMENDATIONS TO FOSTER A NEW SAFETY CULTURE (P576)

- i) A new **engaged safety culture** be built by the adoption, promulgation and inculcation of the above five element model, namely Reporting culture, just culture, flexible culture, learning culture and questioning culture.
- ii) The lead role in this process shall start and be **sustained from the very top** of the organisation.
- iii) There shall be **briefings for all those in leadership positions of the lessons to be learned** from the loss of Challenger, Columbia, Nimrod and other major accidents.
- iv) The MAA shall employ **experienced and qualified personnel to develop and promote and Engaged Safety Culture**.
- v) The audit inspection teams set up as part of the New Airworthiness Regime outlined in Ch21 **should be instructed and trained in the value of an Engaged Safety Culture** so that they can both promote and audit the Safety culture of the organisations which they visit.
- vi) The MAA should, by liaison, secondment and regular contact with other organisations such as CAA, HSE and JPDO, ensure that it **remains aware of best practice and new initiatives** in promoting an Engaged safety culture.
- vii) Part of the remit of the MAAIB shall be positively to consider and **investigate the organisational causes or failures** and report these to the Head of the MAA.

SoS response - We accept that Mr Haddon-Cave's model of Safety Culture is one to which the MOD should aspire. Significant organisational and cultural barriers still prevent, however, full acceptance of such a culture, and further work will be required to determine the full extent of these barriers.

MAA update 2011/12 - Engaged safety culture is a fundamental part of the Assurance process and is audited at every assurance visit (item (v) above). MAAIB investigators are trained at Cranfield University which puts significant emphasis on organisational factors (item (vii) above)

MEAP comment – This is moving in the right direction and remains work in progress – particularly at sub unit level. ODHs have set the direction in their respective Safety Management System arrangements. Human Factors training is being rolled out across the air domain.

Further recommendations

The excessive use of acronyms should be discouraged (Recommendation 28.1)

SoS response - Joint Service Publication 101 already discourages use of acronyms, we will ensure this is communicated widely.

The ubiquitous use of PowerPoint should be discouraged (Recommendation 28.2).

SoS response - (Agreed in principle). PowerPoint can be a very useful briefing and recording tool, but it is not appropriate for the detailed consideration of complex issues. and its use should not be ubiquitous.

The writing of prolix and repetitive reports should be discouraged (Recommendation 28.3)

SoS response - Our processes will be simplified to remove the risk of repetition clouding judgement. The MAA and delivery area will be alive to this in conducting audits.

There should be regular articles in in-house magazines and websites drawing attention to, and discussing, safety and airworthiness issues and best practice. (Recommendation 28.5)

SoS response - The MOD already has a number of specialist safety publications and we will look to making these more widely accessible. We will also encourage greater coverage of safety and airworthiness issues in wider publications.

Consideration should be given as to whether maintenance shift patterns, in particular for 'legacy' aircraft, are optimum for ensuring the quality of work meets the ALARP principle. (Recommendation 28.6)

SoS response - A review of maintenance shift patterns and their effect on quality of work will be conducted. This may draw on earlier work.

'Officers' terms on appointment should no longer include 'change objectives' but should, in future, include a statement requiring them to consider carefully the impact of any changes or initiatives and whether there might be any indirect or direct implications for Safety or Airworthiness'. (Recommendation 28.7).

SoS response - (Agreed in principle). Where staff have personal objectives to deliver change to improve the business, staff will be reminded of the need to consider the potential impacts on safety and airworthiness.

The following recommendations have been rejected

'RTSAs shall be folded into the MAA as a distinct regulatory function with Service specialists employed to provide appropriate input on Service-specific environmental requirements'. (Recommendation 21.A.4)

SoS response - The RTSA model proposed by Mr Haddon-Gave does not offer sufficient agility or sufficient governance, and his proposition that AOAs should be able to issue, unilaterally, Operational Emergency Clearances (OECs) would represent a lower level of safety assurance than is in place today. We have, therefore, decided to leave the initial authorisation of a Release to Service, and its subsequent in-service management, with the single-Service Assistant Chiefs or Staff, within the Services but separate from the day-to-day management of flying operations. Before an initial Release to service is issued, however, it will in future be fully assured by the MAA. Any adjustments, including OECs, will be monitored by the independent MAA, and the RTS will be periodically re-issued following extensive audit. This refinement to the Haddon-Cave model will deliver the intent of his recommendation, while retaining operational agility and improving on both current, and is proposed, governance arrangements.

'Safety Cases should be re-named "Risk Cases" in order to focus attention on the fact that they are about managing risk. (Recommendation 22.2)

SoS response - We believe that name changes will add confusion; the intent will be achieved without the name change.

'A single professional body should be formed for Safety Experts to set professional and ethical standards, accredit members and disseminate best practice. (Recommendation 28.4)

SoS response - The Department wishes to align itself to the maximum extent with civilian and expert bodies. Rather than create a separate safety body for the MOD, we propose to continue to work with existing safety bodies including the Institution

of Occupational safety and Health and other professional engineering bodies, such as the IET, IMechE, RAeS. These bodies all have specialist groups dealing with safety and have ethical and professional standards.

The Orwellian-named DE&S "Director General Change" and "Director Business Change" should be re-named, respectively, "Director General Stability" and "Director Business Stability" (Recommendation 28.8)

SoS response - DE&S has a two-star post entitled Director Change to oversee the implementation of its four year business improvement programme. We believe a post title must indicate clearly and succinctly the purpose of the role, and business improvement frequently requires changes. We accept entirely Mr Haddon-Cave's view that 'change for change's sake' should be avoided, and that stability is beneficial once the required results are achieved but will be retaining current post titles.