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Swordfish aircraft with the RN Historic Flight

REGULATING FLYING DISPLAYS AND SPECIAL EVENTS

[RA 2335 – Flying Displays and Special Events](#) is reviewed annually in advance of each display season. As the review had not completed in time to be briefed at the pre-season Airshow Symposium in February, the MAA hosted a separate briefing for the display community (both military and civilian) on 14 March 2016 at the Defence Academy, Shrivenham.

The purpose of the brief was to formalise the Notice of Proposed Amendment (NPA) for RA 2335 such that those present could understand the rationale behind the proposed changes and have an opportunity to comment. This also acted as the start of the on-line consultation period (accessed via the MAA websites). The NPA process allows a period of 4 weeks during which interested parties can submit comments to the MAA Regs Fly team about the proposed changes, all of which will be

considered prior to final publication. The Notice of Authorized Amendment (NAA) to RA 2335 was published on 27 April 2016. A summary of the significant changes are as follows:

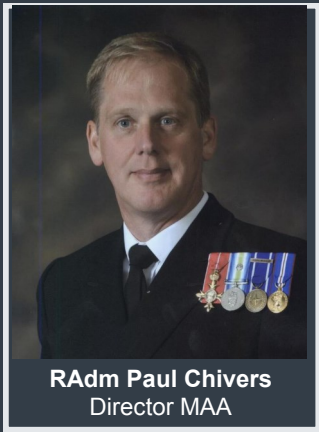
- An anomaly whereby a civilian display aircraft could fly closer to the crowd than its equivalent military counterpart has been corrected. All participants at an MAA regulated air show will now fly to the same lateral separation distances.
- Civilian display participants will be required to provide the Flying Display Director (FDD) with a plan of their intended display at least 24 hours in advance. This is to allow the FDD to assess any risks associated with the individual participant's display that may not have been previously assessed. This is not intended to limit the civilian display participant's ability

to modify their display on the day in order to take into account factors such as changes to airspace or weather factors.

- The responsibilities of those planning an air show, or providing aircraft as participants (specifically military Aviation Duty Holders and Accountable Managers (Military Flying) - AM(MF)), are clarified within the amendment. This should ensure that all parties have sight of the relevant risk assessments that will impact on their planning and participation.

The MAA has remained closely involved with the CAA and AAIB since the tragic accident at Shoreham in 2015, and the amendments to RA 2335 have been made using all available sources of evidence to ensure that MAA regulated air shows remain safe and enjoyable for all.





RAAdm Paul Chivers
Director MAA

NOTE FROM THE DIRECTOR

This has been a particularly busy period with Air Display regulation and assurance, major ODH audits and our first joint audit with other Defence Safety Authority Regulators who cover domains such as fuel and ordnance. This joint work aims to bring greater coherence across the domains as we recognise many of you within Defence face multiple Defence Regulators. You will hear more about DSA joint working and how the MAA strategy is being developed in the next edition.

The environment in which we operate continues to change due to technology improvements and the impact of SDR on old and new capabilities. We strive to keep pace with these developments to ensure the regulations and certification are effective and proportionate and our oversight is risk based. There is a need to utilise 1st and 2nd party assurance evidence and to improve how we share information so I ask that you continue to engage and work with my team on this.

Yours,

Rear Admiral Paul Chivers
Director MAA

ASIMS V3 NOW LIVE!

The transition to ASIMS v3 is now complete and, having been conducted over just one day, minimal disruption was experienced by the Defence Aviation Community. ASIMS v3 was officially released 'live' on 1 April 2016 following a period of user community 'Beta' testing throughout March. The update aims to improve DASOR data capture and to align ASIMS with Bowtie methodology which will allow users to exploit ASIMS data more effectively.

Specific updates include:

A revised process flow:

All submitted reports will be sent directly to the occurrence manager (OM) in parallel with the technical and/or supervisor sections. OMs will no longer have to wait for the technical or supervisor sections to be completed prior to acceptance.

New taxonomy:

A new taxonomy has been devised to provide greater clarity between an occurrence Outcome (the What), and Causal Factors (the Why), and allow better compatibility with Bowtie methodology.

Exploiting Data:

Introduction of #Tags to improve search and trending functionality.

Reporting Forms:

Introduction of additional reporting forms for Laser/High Power Light Illumination, Human Fatigue and Lightning Strike.

Military Register:

Incorporation of the Military Aircraft Register to allow auto-population of reporting fields.

Findings Section:

Enhancement of the Findings section functionality to exploit the new taxonomy and mandate the selection of an Outcome, Cause (where appropriate) and at least one Causal Factor

Recommendations:

Improved Recommendation management functionality.

Investigations:

Addition of the occurrence review group (ORG) process for all reports with an OSI investigation type.

ASIMS Training Package

A dedicated online training package has been included within ASIMS v3. The training is split into role-related training modules which are accessible from the Resources dropdown menu bar on the ASIMS homepage. Training should be completed prior to using the system.

ASIMS Helpdesk Contact

If you are experiencing any ASIMS related issues please contact the ASIMS Helpdesk which is staffed during normal UK working hours via the following means:

Email: DSA-MAA-ASIMS@mod.uk
Telephone: 030 679 84188

ASIMS Feedback

User feedback is always welcome and is fed into the continuous improvement and development of the system. Feedback can be provided via the Online Resources section on the ASIMS Homepage.

ASIMS Useful Links

ASIMS Home Page:
<https://www.asims.r.mil.uk>

ASIMS PDF (offline) Forms: <https://www.gov.uk/government/publications/defence-air-safety-occurrence-report-dasor-forms>

ASIMS Test Server: <https://www.maatestserver.r.mil.uk:420>

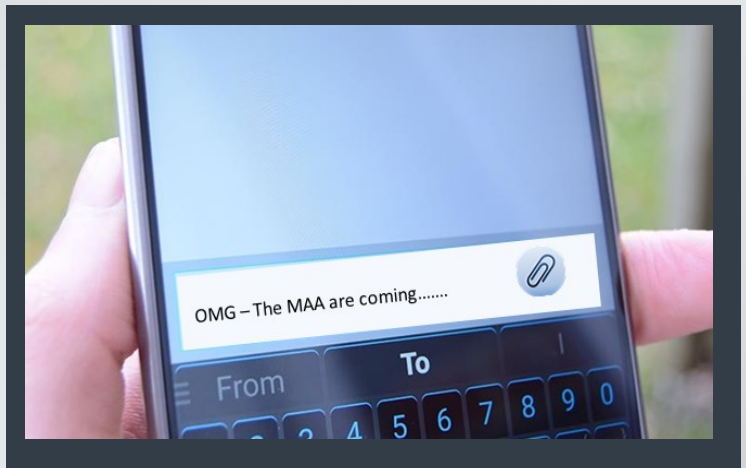


OVERSIGHT UPDATE

'OMG – the MAA are coming!' Spotted in a recent tweet but I hope that after you've read this article it won't seem quite so bad. Indeed, as I shall explain, the MAA is working through 'second party assurance bodies' to reduce the burden on the Front Line of our direct oversight.

The MAA is required to assure the Secretary State for Defence that Air Safety is well-regulated and that risks to life from aviation activity are both tolerable and being managed such that they are as low as reasonably practicable. In order to achieve this, one of the MAA's foremost activities is to run a rolling programme of assurance visits to the organizations that it regulates. These may be conducted as individual audits of selected organizations or they may be a series of visits as part of a theme; for example, we visited several organizations in 2015 on the theme of 'assured aeronautical information'. We audit primarily against MAA regulations but also against each organization's own safety management plan or 'management exposition' as well as looking for evidence to make an assessment of safety culture. As the independent regulator of Air Safety, our oversight is 'third party'; increasingly, we are able to rely on oversight evidence collected by 'second parties', in particular the Air Safety Cells (ASCs) that work to the Operating Duty Holders, more of which later.

We try to notify each organization at least 12 weeks in advance of visiting, during which time we collect the documentary evidence (safety management plans, meeting records, etc.) which will give us an early indication of what to expect and helps us to develop question-sets for interviews. Most importantly this preparatory work minimizes the time that we need to spend on-site and, thus, the distraction that we will cause. Depending on the size and complexity of the organization, the audit team can vary between 2 and 10 people and the on-site phase can be anything from one day to 2 weeks. Upon completion of the audit we aim to issue a draft audit report for factual checking within 20 working days. Whilst the factual check is not meant to be an opportunity for the audited organization to challenge our findings, it does frequently happen and can cause a considerable delay in getting the final report out. Please don't do it! Our findings comprise corrective action requirements (CARs) and other observations. CARs are further classified on 2 levels: a 'Level 1' CAR indicates that a non-compliance could potentially create a significant risk to life, all other CARs are classified Level 2. Unlike the CAA who are more constrained by commercial sensitivities, we distribute our audit reports quite widely within the MOD as we believe in transparency and the potential to learn lessons from others. In particular, we ensure that relevant Aviation Duty Holders are copied.



Continued on page 4

REGULATION UPDATE

ATM REGS:

- RA 1026 - Aerodrome Operator and RA 3277 - Wake Turbulence are currently subject to amendment following Stakeholder engagement. Any specific Requests for Change (RFC) from the Regulated Community (RC) are encouraged to inform the review process prior to NPA.
- The Manual of Aerodrome Design and Safeguarding is undergoing a total review which will shortly reach the Stakeholder Engagement phase. Stakeholders have been identified and invitations will be sent out in due course. Any additional interested parties are invited to contact DSA-MAA-Reg-ATM@mod.uk.

CAW REGS:

- The Continuing Airworthiness team have re-issued the Manual of Maintenance and Airworthiness Process – 02 (MAP-02) which is now hosted on the MAA's website. Whilst the format of the document has changed slightly there has been no change to the content.

DAW REGS:

- The Design Airworthiness team have sentenced the comments received from NPA 15/12 and made numerous amendments to the RA 5000 Series documents. A small number of RAs have been subject to a repeat NPA process and the comments received are currently being sentenced. The RA 5000 Series will be published under the title of Type Airworthiness Engineering (TAE).
- The DAW team would like to thank the Regulated Community for their valuable contribution to the review of the RA 5000 Series.

OVERSIGHT UPDATE continued from page 3

There are a number of common failings that the MAA picks up from our assurance visits which are worth mentioning here. As we focus a lot of attention on safety management systems, which we assess against MAA Regulatory Article (RA) 1200 – Defence Air Safety Management, it will come as no surprise that our audits often highlight shortfalls in this area. If we find a lot of Level 2 non-compliance with MAA regulations then this calls into-question whether the arrangements for ‘second party’ assurance are working and this often results in a Level 1 CAR for a lack of assurance because this tends to ‘stack up’ risk to life. Compliance with new regulation is a frequent failure, mainly because organizations have simply missed it; for example, many airfields are still non-compliant with RA 1026 – Aerodrome Operator regulations, which were first published 2 years ago. There is now a very useful feature in our website where individuals can sign-up to receive an [automatic email alert](#) whenever our regulations are amended and this can be tailored to all or selected publications - I use this myself, it's really good. In both DE&S and in contracted aircraft design and maintenance organizations, the most common failing is the lack of a functioning quality management system. In sum, audit failures invariably result from a lack of good governance. Conversely, organizations that are well-governed tend to measure-up favourably against our regulations and are often credited with positive observations in our reports.

In the future it is the MAA's intent to focus more attention on the providers of ‘second party’ air safety assurance. Organizations such as the ASCs that support the Operating Duty Holders, Flying Standards organizations, Standards Evaluation (STANEVAL) organizations and the Front Line Command external quality assurance organizations are in this category, amongst others. The benefit of our doing this is that we can use some of their audit evidence to reduce the burden of our own auditing at unit level. Consequently, if we know, for example, that an ASC has conducted an Air Safety visit to a unit within the last 12 months and, more critically, we have confidence in their assurance then we may not need to go there ourselves. Obviously, the main benefit from this will be to reduce the burden of our auditing on the Front Line but also it will remove duplication of effort between the MAA and the second parties and, in particular, place more emphasis on good governance of safety management by the Operating Duty Holders through their ASCs and other providers of second party assurance. So, perhaps in future you'll be tweeting ‘OMG – the MAA are not coming!’

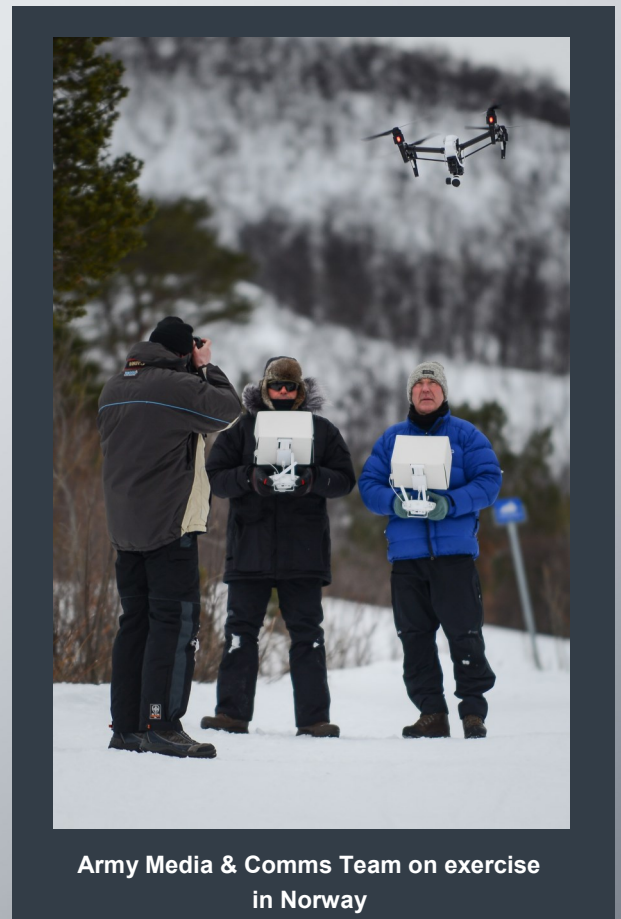
RPAS REGULATIONS - UPDATE

A major update to Remotely Piloted Air Systems (RPAS) regulations was published on 12 April 2016 as Notice of Authorized Amendment (NAA) 16/05. The amendments to the MAA Regulatory Publications (RAs 1600, 2321 (new regulation), 4050 and 5002) are a result of the first major review of RPAS regulations since the release of RA 1600 in January 2015 and address the requirement to introduce a more proportionate regulatory requirement for small Commercial Off The Shelf (COTS) RPAS.

The proliferation of, and technological advances with, small COTS RPAS had highlighted the disparity between the Risk to Life (RtL) posed by such platforms and the regulatory requirements imposed by the MAA, as well as the contrast between MAA and CAA regulation of such platforms. It had been demonstrated to the MAA that the Defence community was keen to exploit small, inexpensive COTS RPAS to conduct a range of non-core aviation tasks. Regulations, however, were proving to be prohibitively disproportionate to RtL, particularly for non-traditional aviation units who had little or no access to the Suitably Qualified and Experienced Personnel (SQEP) required in regulation.

RPAS category Class I(b) has been redefined in RA 1600 to accommodate small COTS RPAS through a reduction in regulatory oversight more proportionate to the low RtL posed by these air systems and relaxes both Duty Holder and SQEP requirements for Class I(b) RPAS. Furthermore, MAA regulation of Class I(b) RPAS is now more closely aligned with the CAA and other regulators, specifically in the imposition of operating limitations to mitigate the lack of technical assurance required for small COTS RPAS.

RAs 1600, 4050 and 5002 are amendments to accommodate the newly defined Class I(b). RA 2321 is a new regulation which outlines qualification requirements and operating limitations for Class I(b) RPAS in Defence; whilst its basis is formed from Civil Aviation Publication (CAP) 722, it is written to specifically meet the requirements of operating a small COTS RPAS in the Defence Air Environment.



Army Media & Comms Team on exercise
in Norway

CERTIFICATION UPDATE

- Regulatory Notice (RN) [MAA/RN/2016/03](#) was published on 7 April 2016. This RN supplements RA 1500 (Certification of UK Military Registered Air Systems) and provides additional information on the purpose of Military Type Certificates. The first UK Military Type Certificate is expected to be issued soon and will be covered in more detail in the next issue of the MAA Flyer.
- Certification Division desk officers are currently working on a wide range of new Air System projects, including the 2 rotary wing and 3 fixed wing training aircraft of the UK Military Flying Training System (UKMFTS) programme, Lightning II, Poseidon P-8 and the SCAVENGER RPAS, as well as over 20 major change to type design programmes.
- A contract with QinetiQ has delivered proposed reductions to the current Flight Deck Landing Scatter Limits detailed in Def-Stan 00-133 which drive ship flight deck design. Having, for the first time, collected and analysed 'real-world' landing scatter data from current Ship/Aircraft combinations, we now have the quantitative data required to assess the safety impact of flight deck design non-compliance.

A Marination Workshop was held on 10 March 2016 in support of the Ageing Aircraft Programmes Working Group. The workshop, which was attended by representatives from Defence Equipment and Support (DE&S), Front Line Commands, Design Organizations and industry specialists, captured a wide range of best-practice for the operation of aircraft in the maritime environment. This best practice is currently being collated into a guidance paper in partnership with the DE&S Airworthiness Team.

POCKET GUIDE TO MAA REGULATION

MAA ATM Regs have produced 'The Pocket Guide to MAA Regulation' which is a leaflet summarizing the Regulatory Processes detailed in MAA 03. Specifically it covers how to submit a Request for Change (RFC) to a Regulation or a Waiver, Exemption or Alternative Acceptable Means of Compliance. The leaflet can be found on the MAA website [here](#).



CONTINUING AIRWORTHINESS (CAw) APPROVALS UPDATE

The MAA remains encouraged to see the number of applicants for Maintenance Airworthiness Organization Scheme (MAOS) approval continuing to increase. So much so, a recruitment campaign for additional CAw Approvals personnel was instigated in order to meet the demand of the increased number of organizations requiring approval and oversight. The team has also been restructured to optimise the service provided to the Regulated Community and training of recently recruited personnel is in progress. The target is for a full, steady state service to be achieved by Autumn 2016.

Maintenance Approved Organization Scheme (MAOS)

MAOS currently comprises 47 approved organizations across 86 sites, including 7 organizations that have been approved via the MAOS Supplement route. Four new applications for MAOS have been received since November 2015. In recognition of the high number of Corrective Action Requirements (CARs) issued to organizations relating to poor Quality Management Systems (QMS), regulations have been revised to clarify an organization's regulatory requirement in respect of their QMS. The proposed changes to regulation were published for consultation as Notice of Proposed Amendment (NPA) 16/05 and the finalized regulations will be published in due course.

Continuing Airworthiness Management Organization (CAMO)

The CAMO approval scheme currently comprises 45 organizations. Of these, 39 have gained Sub Part G approval and the remainder are undergoing MAA assessment. From a CAMO Airworthiness Review (Sub-Part I) perspective, 38 approvals have been granted. Work continues on the approval of non-Duty Holder CAMOs, as has dialogue with industry following the recent revision to CAMO regulations (RA 4900 series and the CAMO 'capstone' RA 1016) which clarified the requirement for Defence Contractor Flying Organizations to utilize an MAA approved CAMO. Of note, BAe Systems recently became the first large industrial organization to be granted a CAMO Approval. Whilst the current approval is limited to Typhoon trials aircraft, work is on-going to extend the approval to include Hawk and Tornado aircraft.

SKILLS TRAINING AND TALENT SUSTAINMENT (STTS)

The MAA Skills Training & Talent Sustainment (STTS) team are responsible for the delivery of STTS policy and activity in Talent Sustainment, Internal Training, External Training and Skills and Competency Development.

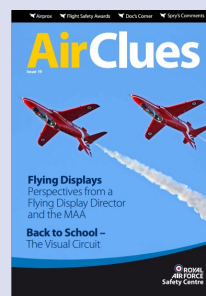
Since the start of the year, STTS have overseen an unprecedented increase in training activity and support to the Regulated Community. Last year the MAA trained over 3000 military and civilian personnel in Air Safety and Airworthiness related subjects, and this year the demand continues to grow. A new contract to support the DAEMS II Project was awarded in 2015, providing Defence with flexible access to a wide range of training and technical support solutions to develop Safety Management Systems (SMS). DAEMS II has increased the training portfolio of specialist Safety Management courses from 3 to 10 with the inclusion of Airworthiness and Risk and Data Analysis training, amongst others. DAEMS II also delivered its first Train the Trainer (TtT) courses in March, during which 9 military instructors were provisionally qualified. Each of these instructors will save Defence £1.5k for every course they deliver and is the first stage in the process of enabling the Regulated Community to manage, fund and take greater ownership of their Air Safety training requirements.

All training provided by STTS is delivered under the exacting standards of JSP 822 Defence Systems Approach to Training (DSAT) and, where appropriate, STTS have actively pursued international recognition of their training. In the last edition of the MAA Flyer, STTS announced that the MAA had gained Approved Auditor Competence Scheme status for its auditor training by the International Register of Chartered Auditors (IRCA). During the next few months it is anticipated that the internationally recognised Institute of Risk Management (IRM) will add the MAA's Air Safety Risk Assessment & Management course (MASRAMP) to its list of recognised Risk Management training.

Air Show Symposium

2015 was a difficult year for the Air Show community with several tragic accidents which highlighted wider safety concerns. For a number of years STTS have delivered Air Show related safety training as part of the highly regarded pre- and post-season Air Show Symposia held at the Defence Academy Shrivenham. This training is delivered in partnership with the CAA and the British Air Display Association (BADA) and, since its inception, the breadth and quality has been greatly enhanced which was reflected by the significant increase in both military and civilian attendees. This year's pre-season event, held in February, was opened by Sir Gerald Howeth MP, President of BADA, and was attended by over 350 personnel making the MAA Symposium the largest event of its kind in Europe. The CAA also recognise the value and benefit of this training and recently mandated attendance at the Air Show Symposia as an interim solution to the Air Show training requirement identified within the recommendations of the Shoreham accident report.

Air Clues Article - 'Poacher Turned Gamekeeper'



Display Flying: The Human Factors and Error Management Challenge.

STTS have written an article which has been published in the latest edition of the RAF Flight Safety Centre's magazine, Air Clues.

Click [here to view](#).



Aircraft of the Royal Air Force Battle of Britain Memorial Flight

AIR TRAFFIC MANAGEMENT EQUIPMENT APPROVED ORGANIZATION SCHEME

The Air Traffic Management Equipment Approved Organization Scheme (AAOS) was created following the identification of a gap in the Military Regulatory Publications (MRP) relating to Air Traffic Management (ATM) Equipment. Having identified the gap, work was carried out by MAA staff which culminated in the publication of new regulations (Regulatory Article (RA) 1027 and RAs 3100-3108) in 2013. The publication of the new regulations was followed by the development and implementation of assurance activity, which saw the first organization audited in 2014. To date, 7 organizations have been approved as part of the AAOS and a number are in the process of gaining an approval.

Unlike other MAA Approved Organization Schemes e.g. Design or Maintenance, the MAA's AAOS has no equivalent predecessor, and for many in-scope organizations, the initiation of the scheme has resulted in new requirements being placed upon them. Whilst the requirement to gain AAOS approval will be written into new MOD contracts, legacy contracts have had to be amended, which has had an impact on ongoing assurance activity. Additionally, the introduction of a new Approved Organization Scheme focused on ATM Equipment has brought its own challenges for the MAA with many lessons identified during the first year of assurance activity.

Upon reaching its first anniversary a review of the AAOS was initiated to assess issues identified during the first year and to determine how the AAOS can be improved to support future regulatory and industry requirements. Along with a complete review of related RAs, the scope of the scheme was revisited with the principle aim to clarify the parameters of AAOS activity and not duplicate assurance already conducted by other elements of the MAA. Consequently, it was concluded that Airborne ATM Equipment should be excluded from the scope of the AAOS as it is already covered by the Maintenance Approved Organization Scheme (MAOS). Furthermore, work on published MAA definitions is underway to ensure Air Battlespace Management Equipment is brought into scope of the scheme. Although yet to be ratified, the proposed regulatory scope for future AAOS activity is as follows:

'...civilian organizations wishing to undertake the provision and/or installation of ATM Equipment (not including Airborne ATM Equipment), and/or the provision of technical services that support ATM Equipment.'

The on-going review of the AAOS has not halted assurance activity and Oversight and Approval's Operations Support Branch (which is responsible for the AAOS) continues to work with contracting authorities and industry to ensure regulatory compliance is achieved. Delivery of the outputs of the AAOS review is expected to complete during Summer 2016 and personnel within contracting organizations or within the Regulated Community are encouraged to contact the Operations Support Branch Head (DSA-MAA-OA-AAOS@mod.uk) for further information if required.



FEEDBACK

The MAA Flyer welcomes your feedback. If you have any views on the content of this newsletter, or suggestions for future content, please contact us via DSA-Enquiries@mod.uk.

For enquiries relating to the MRP, please contact us via DSA-MAA-MRPEenquiries@mod.uk

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