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## MAA WELCOMES NEW DIRECTOR

The MAA is pleased to welcome **Rear Admiral Paul A Chivers OBE ROYAL NAVY** as Director Military Aviation Authority (D MAA) in succession to Air Vice-Marshal Paul Atherton OBE RAF.

RAdm Chivers formally assumed the responsibilities of the role on 8 December 2015.

In his farewell address AVM Atherton thanked MAA staff, adding “During my tenure within the MAA, I have seen engagement with the Regulated Community continue to mature. The MAA continues to add value, balancing the regulatory role with a clear understanding of what is required to deliver military aviation capability. I know that RAdm Chivers can look forward to continued support from the excellent team that he inherits.”

RAdm Chivers addressed the staff commenting “I am delighted to take over such a capable team from AVM Atherton and remain committed to supporting Defence’s ability to deliver aviation in a safe manner. The MAA will continue to

evolve as the influence of the DSA develops and our focus remains the provision of appropriate regulation and assurance”.

### MESSAGE FROM REAR ADMIRAL PAUL CHIVERS, D MAA

I am delighted to be appointed Director of such a professional and dedicated organization that is making a difference by supporting the delivery of operational capability across the Defence Aviation Environment. I feel well prepared for the job; by background as a maritime rotary wing aviator flying from both land and sea around the globe, as a Delivery Duty Holder for Front Line, training and historic aircraft whilst commanding RNAS Yeovilton, and more recently through my exposure to the length and breadth of Defence aviation activity as the Head of Oversight and Approvals within the MAA.

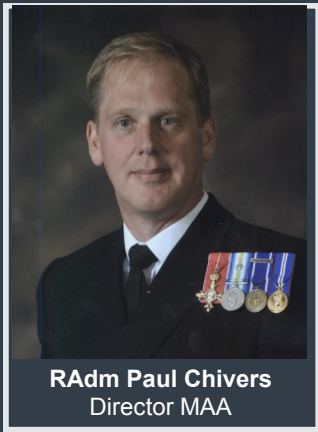
I take over at an interesting time within the context of the establishment of the Defence Safety Authority, the fall out of the recent Strategic Defence and Security Review and a number of equipment

projects reaching key milestones in their delivery; all of which have the potential to influence the requirements placed upon us. As such, we will conduct a small internal review to ensure the organization remains sufficiently resilient and agile to deliver current and future change. The review’s focus will, and must, remain on delivering our key outputs and supporting the regulated community.

Another area of activity for the MAA is to formalise and grow our external relationships. Developing relationships with our fellow regulators within the DSA (clarifying, where appropriate, the boundaries between us); expanding our interaction with the CAA to understand and learn from their experiences during their journey to becoming a Performance Based Regulator and optimising our international relationships. Recognition activity remains key, both to learn from similarly focused organizations but also to help de-risk the delivery of future capability.

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**RAdm Paul Chivers**  
Director MAA

## NOTE FROM THE DIRECTOR

This is the first MAA Flyer during my time as Director MAA and I am pleased to see that it highlights the breadth and depth of the work that the MAA has been undertaking.

We continue to engage with the Regulated Community, specifically with our industry partners to develop the aircraft design (5000 series) regulations and to review the Contractor Flying activities. Work continues to strengthen our external ties with the formal signing of the Mutual Recognition Certificates with our European counterparts.

The external accreditation of our auditor training through the International Register of Certified Auditors scheme, along with the receipt of three well earned Director General Defence Safety Authority Commendation Awards by members and teams from the MAA, is testimony to the continued professionalism and efforts of our people who are key to the success of the MAA. Congratulations to the recipients of the Awards

Yours,

**Rear Admiral Paul Chivers**  
Director MAA

## DIRECTOR MAA continued

Finally we will need to react to the challenges of future technology such as Remotely Piloted Air Systems, which continue to evolve at pace. We need to ensure we do not restrict their utility to Defence whilst making sure they are appropriately safe. Equally the increasing use of synthetics within the training environment is an area that will require our attention in due course.

Continuous improvement of our internal systems and strengthening our relationships with key stakeholders will enable us to keep pace with the external context and exploit opportunities to develop our support to the regulated community across the Defence Air Environment. I look forward to working with you all at this challenging time.

**Rear Admiral Paul Chivers, D MAA**

## ITALIAN, GERMAN, SPANISH AND UK MAAs CONDUCT RECOGNITION

In his February 2015 AEROSPACE article (available on the [MAA's website](#)), Air Vice-Marshal Martin Clark, Director (Technical) MAA, described how harmonising airworthiness regulations amongst military allies could lead to significant benefits in procurement whilst also delivering cost savings. He offered the example of the potential to considerably reduce time and cost in the certification of modifications on Eurofighter Typhoon. As described in the AEROSPACE article, this opportunity would follow the implementation of EMAR 21 within the national regulations of the core Typhoon nations (Italy, Germany, Spain and the UK), coupled with the National Military Airworthiness Authorities (NMAAs) of those nations conducting activities to determine whether they each work in an acceptable and recognisable manner – the Recognition process.

At the start of 2015, the NMAAs of Italy, Germany, Spain and the UK embarked on an ambitious campaign to achieve Recognition of each other (known as Mutual Recognition) by the end of January 2016. This is believed to be the first occasion where a group of nations have conducted Recognition of one another simultaneously. As the purpose of the Recognition was centred on certification, the scope of the Recognition activity was based on the mandatory aspect of the airworthiness regulator and the optional aspect of aircraft certification (sub-sections A and D of the Military Authorities' Recognition Questionset (MARQ) within the European Military Airworthiness Document Recognition (EMAD R)).



Mutual Recognition Certificate Signing Ceremony  
L-R Major General Dr. Ansgar Rieks LufABw, Major General Francesco Langella DAAA, Lieutenant General Juan Garcia Montano DGAM, Air Vice-Marshal Martin Clark MAA

The MARQ consists of a series of 'airworthiness safety goals' such as the "The Authority is authorised to register aircraft and maintain a national registry." Completion of the MARQ requires the NMAA to self-assess which of the tasks described in the airworthiness safety goals it undertakes. Completing the MARQ is often a valuable experience in itself as it allows an NMAA to check its scope of regulatory responsibility against an internationally agreed framework (especially as the MARQ is based on ICAO documents).

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## RECOGNITION continued

The Spanish, German, Italian and UK MARQs were completed by spring 2015 and then circulated amongst the other nations in order to allow a period of study prior to audit. Conscious of the pace of work necessary to achieve Recognition by January 2016, and that the other NMAAs would be unable to support audits during August, the decision was made to invite the Italian, German and Spanish NMAAs to visit the UK in July. Teams from these nations spent 3 days at Abbey Wood learning how the UK MAA functions as a Regulator, with a particular focus on DAOS and the certification process described in RA1500. This visit could not have taken place without support from all MAA divisions and resulted in a very comprehensive account of ourselves. It was also impressive to see the level of understanding which the other NMAAs had of our business, based not only on our MARQ submission but also from the MAA internet website.

Inviting the other nations to the UK first allowed more time to review their MARQ submissions. A small team of SMEs from across the MAA spent part of their summer reading how the other NMAAs functioned, and how this compared to our way of working. As only 3 members of the MAA would be visiting each of the other NMAAs, it was essential that they could represent all those areas which were within the scope of the Recognition activity. September saw 3-day visits to Germany, Spain and Italy; which were almost entirely filled with PowerPoint presentations describing, in considerable detail, how each NMAA operated.

It was particularly interesting to see how each NMAA differed from our own. Although the German Luftfahrtamt der Bundeswehr (LufABw) was only formed at the start of 2015, it was built on over 40 years' experience of type certification of aircraft which began when they experienced dozens of fatal accidents involving the F104 Starfighter during the 1960s and 1970s. This focus on type certification remains a driving element of the LufABw today. The single regulatory authority for all airworthiness issues in the Spanish Armed Forces is the Dirección General de Armamento y Material (DGAM). However, it does not perform all the functions of the UK MAA; for example, the Spanish military aircraft register is controlled by the Spanish Air Force. In addition, DGAM relies on a commercially oriented public institute known as the Instituto Nacional De Técnica Aeroespacial (INTA) to provide technical expertise. INTA also represent DGAM at many meetings and are often erroneously believed to be the Spanish airworthiness regulator. Italy has both an aviation authority within the Air Staff and an independent airworthiness authority called the Direzione degli Armamenti Aeronautici e per l'Aeronavigabilità (DAAA). The DAAA can trace its history back to the 1940s, and not only regulates Italian military aircraft but also those aircraft belonging to the Carabinieri, civil police, coastguard and border force. The DAAA also has some responsibility for procurement, although there are separate project offices responsible for each platform.

The link between project offices and airworthiness was one which the other nations focussed on when they visited the UK. Each nation's TAA (or equivalent) either belonged to the NMAA or was independent of the project office. As such, the nations were very interested in how UK TAAs frequently combined their roles with being DE&S PTLs, and how the UK MAA maintained sufficient oversight to ensure that these two roles did not conflict.



Each visit required a comprehensive report to be produced afterwards which described the NMAA's organization, functions, regulations and processes, with a specific focus on certification. These reports were intended to deliver sufficient information for the Director (Technical) MAA to decide on formally Recognizing the other NMAAs as competent Regulatory Authorities, as well as providing handy guides for individuals who will be dealing with the NMAAs in the future. Following his review, Air Vice-Marshal Clark approved the Recognition of the LufABw, DGAM and DAAA as competent authorities in the fields of airworthiness assurance, certification and design organization approval. Just as important, the other regulators also agreed to Recognize the MAA and the other NMAAs as competent authorities.

To mark the achievement of Recognition between the four nations, a ceremony was held in Munich on 28 January 2016 when Air Vice-Marshal Clark met with Major General Dr Ansgar Rieks of the LufABw, Lieutenant General Juan Garcia Montano of the DGAM and Major General Francesco Langella of the DAAA to sign the necessary certificates. This Recognition creates the potential for one NMAA to use artefacts (such as Design Organization Approvals or certification evidence) that have been granted by another NMAA, thereby reducing or avoiding the need to duplicate future work on the Typhoon programme. The exploitation of Recognition will be covered in more detail in a future issue of the MAA Flyer.

## REGULATION UPDATE

### FLY REGS:

- RA2335, Flying Displays and Special Events - Fly Regs remain closely engaged with the CAA in order to fully understand any CAA regulatory changes that may be forthcoming once the report into the Shoreham Air Show crash is released. An initial independent review has shown that as yet there is no evidence that RA2335 requires amendment, but the output from the CAA review into Air Displays regulation may necessitate a further review of this RA. The MAA recognises the RC has considerable interest in any potential changes to this RA, and will provide updates as more information becomes available.

The MAA also co-hosted the Annual Pre-season Display Flying Symposium on 10 Feb 16. The primary aim of the Pre-season Air Show Symposium is to promote Air Safety related advice, training and guidance within the Air Display environment. It is co-hosted by the MAA & The British Air Display Association (BADA) and supported by the CAA.

### ATM REGS:

- Regulatory Oversight of Civil Aviation Activity at Government Aerodromes - On 16 Dec 15 the MAA signed an MoU with the CAA to formalise assurance arrangements between the CAA and MAA with regard to civil aviation activity at government aerodromes. RA 1026 Aerodrome Operator, and the Defence Aerodrome Manual (DAM) will be updated to reflect the conditions pertinent to this agreement. The MoU merely formalized processes that were in place previously. No impact is expected for the Regulated Community.

### CAW REGS:

- MAP-01 Review and resultant changes to the CAE RA4000 series - Following release of MAA/RN/2015/11, the Reg CAw team remain on track to generate an NPA for the Regulatory changes, with proposals for retaining and managing relevant, non-regulatory content of the MAP-01 by 30 Apr 16. Engagement with the single Service Engineering Policy teams will re-commence in Feb 16 to provide advance warning of the intended changes.

### DAW REGS:

- RA 5000 Series – NPA 2015-12 closed 16 Oct 2015 with over 1000 comments received. The Reg DAw team have been working through the comments and the sentencing of the MAA response has begun. It is expected that a Regulatory Notice addressing the 'finalised' version of the amended RA 5000 Series will be published in the Spring of this year and the formal release of the RA 5000 Series will be through the Notice of Authorized Amendment in the latter end of the year.

## CERTIFICATION UPDATE

- **MAA/RN/2015/15** was published on 19 Nov 15. This RN builds on MAA Mutual Recognition activity and gives guidance to DE&S PTs to allow them to use existing certification evidence as credit towards demonstrating compliance with the MAA military air systems certification process. The approach will be trialled on 2 projects, announced in the recent SDSR, MMA (P8 Poseidon) and Apache CSP, and will allow the PTs to exploit certification activity carried out by the US Dept of Defense for these platforms.
- **RA 1395** – Ship-Air Release – Introduces a joint ODH/DE&S process to permit MOD Ships to conduct embarked aviation; with independent authorisation given by the RN RTSA.
- **RA1029** – Ship-Air Release Stakeholder Roles and Responsibilities.
- Both RA 1395 and 1029 published by MAA on 18 Dec 15.

## APPROVALS UPDATE

### CONTRACTOR FLYING APPROVED ORGANIZATION SCHEME (CFAOS)

Two significant events have happened since the transition to CFAOS was completed. These are:

A Learning from Experience (LfE) event hosted by BAE Systems at Warton, was conducted with a cross-section of industry in attendance. The main thrust of the event was to look back at the CFAOS transition process, looking at common deficiencies identified during the audit process to ascertain whether the Corrective Action Requirements raised were due to misinterpretation of the RA, a lack of understanding on what constituted compliance or that the MRP did not meet the requirements of how industry needed to operate. It was a chance to garner feedback on the MRP as a regulatory set from a cross section of Industry Subject Matter Experts and also provided a conduit for the MAA to highlight and educate industry on parts of the MRP that had been misunderstood or confused. MAA Fly Regs representatives were in attendance as well as CFAOS personnel; this was welcomed by industry and allowed concerns to be discussed with the team that would affect the change. The work is on-going but Request For Change action has been initiated where required.

The Contractor Flying Annual Review (CFAR) was hosted by Boeing in their London offices over two days at the beginning of Dec 2015. This was an opportunity for the MAA Regulated Contractor community to get together and share best practice, discuss areas of concern and for the MAA to brief on proposed direction and changes. The new Director MAA was in attendance for the event and there was good representation from Industry. The briefs covered the output from the LfE event, the FLY2000 Regulatory Set, RA3049, The Accountable Manager (Continued Airworthiness), Air Safety Management System (ASMS) Effectiveness and Future Direction. An evening event was hosted by Boeing and provided further opportunity for the MAA and the regulated community to interact and discuss themes and issues that had arisen on the first day. The event generated debate and areas for future work.

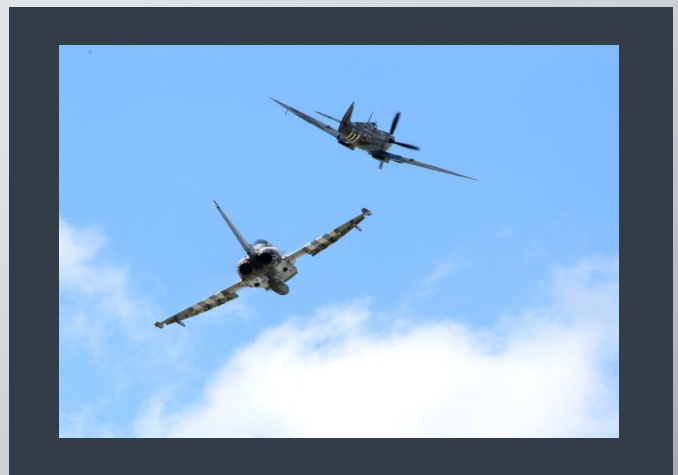
The CFAOS branch will be busy concentrating on surveillance activities in 2016 and the proposed audit calendar was briefed at the CFAR. This will move away from checking for regulatory compliance and instead focus on looking for evidence for the processes in use, an effectiveness check if you will. The CFAOS branch will also endeavour to close down any outstanding CARs raised during the CFAOS transition. It will also signal the start of checking the effectiveness of industry ASMS and assessing the prevailing Air Safety Cultures.

### DESIGN APPROVED ORGANIZATION SCHEME (DAOS)

Whether flying a Spitfire or a Typhoon; the organization undertaking the design will have been assessed to establish that it has effective design systems in place and employs competent people.

These days the assessment is undertaken by the Oversight & Approvals Division of the MAA through the Design Approved Organization Scheme (DAOS). In its current form this is published in the 5000 series Design and Modification Engineering Regulations. However DAOS can be traced back to 1928 when the 'approved firms' system was expanded to include approved *designing* firms<sup>1</sup>. The approved designing firm was considered able to make its own investigations under the general supervision of the Airworthiness Department of the Air Ministry. Although there have been many changes since, the fundamental principles still apply including the requirement for a 'Type Record'; the document that through reference to drawings, calculations and trials demonstrate that the design meets the requirement.

There are 102 Design Organizations included in the scheme across the UK, Europe and North America. These include the world's leading Aircraft designers such as Airbus Defence & Space, BAE Systems and Boeing. Also included in the scheme are Engine designers such as Rolls Royce, Weapon Designers ranging from Raytheon Missile Systems (Paveway) to FN Herstal (machine gun) and commodity designers including GE Aviation. Service design organizations such as 1710 NAS are also included.



The MAA has a contract with the UK Civil Aviation Authority to undertake some of the DAOS auditing activities. This provides the MAA with greater flexibility, access to a broader pool of auditors and the sharing of expertise across the Military/Civil aerospace environment; the latter being increasingly beneficial with the number of military platforms being derivatives of civil aircraft such as Voyager.

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<sup>1</sup> Source: Flight magazine dated 2 March 1939.



## DESIGN APPROVED ORGANIZATION SCHEME (DAOS) continued

There are big changes to the way the MAA will undertake Design Approvals with the incorporation of the European Military Airworthiness Requirements into the RA 5800 series as discussed in Issue 1 of the MAA Flyer. Significant benefits to MOD and Industry are a clearer regulation set, improved clarity on the independent checking function within the organization and the ability for organizations to hold the privilege to undertake some design activity without recourse back to the TAA, providing both the MAA and the TAA are content. This will enable Design Organizations to be more responsive and, for example, reduce time and cost to implement modifications and repairs.

In advance of this, the DAOS Branch worked with the FAST PT and BAE Systems to develop the process and the evidence/assessment requirements for Privilege to be granted; initially this was for UK sponsored Low Level Changes to RAF aircraft. This enables BAE Systems to implement these modifications

without having to go through the full multi-national process. The next steps are to expand the scope of Privilege for Typhoon and look to applying the lessons learned to other platforms. 2016 will be a busy year for DAOS.



## DIRECTOR GENERAL DEFENCE SAFETY AUTHORITY (DSA) COMMENDATION AWARDS

The DG DSA Commendation Award is a pan DSA commendation, awarded at 3\* level to recognise exceptional contribution to Defence safety.

The awards, held on 4 Feb at Abbey Wood North, were presented by DSA Director General AM Dick Garwood CB CBE DFC MA RAF. Nominations were submitted from across the DSA with commendations awarded to six individuals and two teams. The presentation is the first to take place since the formation of the Defence Safety Authority in April 2015.

Commendations were awarded to recipients from several areas performing a variety of functions.

AM Garwood said of the awards:

“It is a privilege to be able to recognise the efforts of those who have worked so hard of late to establish the Defence Safety Authority, promote safety across Defence and in doing so play their own part in enhancing and protecting the operational capability of the UK’s frontline forces”.

Along with recipients from other areas of the organization, MAA personnel received one individual and two team awards:

### **STTS DAEMS Manager - MAA**

For his work successfully procuring the DAEMS II portfolio of training courses and aviation training support to the regulated community.

### **Continuing Airworthiness Approvals Branch - MAA**

For their outstanding performance conducting 95 audits and significantly growing the Maintenance Approved Organization Scheme to 102 organizations.

### **Contractor Flying Approved Organization Scheme - MAA**

For their work implementing the scheme which significantly enhanced the air safety culture within the Defence contractor community.

As the DSA approaches full operating capability these awards recognise the importance of safety across Defence and celebrate the hard work of all personnel across the defence safety regulators during the transition to DSA. Congratulations to all recipients.



AM Dick Garwood addressing DSA Staff

# MAA AND THE IRCA APPROVED AUDITOR COMPETENCE SCHEME

On 01 January 2016, the Military Aviation Authority (MAA) became the first ever organization, globally, to join the International Register of Certificated Auditors (IRCA) Approved Auditor Competence Scheme.

The new scheme allows IRCA, a division of the Chartered Quality Institute (CQI), to recognise the competence of those auditing against any audit criteria, be they the organization's own safety management system, military regulations, or National guidelines: the focus is no longer solely on ISO based management systems.

Over the past two years IRCA has worked in partnership with the MAA and the Defence Academy of the United Kingdom to develop, review and approve their auditor training and has concluded that the MAA meets the highest standards of professional training and development for auditors.

On 26 January 2016, at a welcome address and lecture held at Abbey Wood North, the Acting CEO CQI, Mr Vince Desmond, presented D MAA, RAdm Chivers, with a certificate accepting the MAA as the first ever IRCA Approved Auditor Organization.

Mr Vince Desmond, Acting Chief Executive Officer (CQI);

*"The MAA has demonstrated the highest standards of training and development for their management systems auditors and the CQI is delighted to welcome them as the first IRCA Approved Auditor Organization."*

Rear Admiral Paul Chivers OBE RN, Director MAA;

*"The MAA provides assurance of aviation safety across the Defence Air Environment, including the Armed Forces and our industry partners. The recognition by IRCA as an Approved Auditor Organization is extremely pleasing....The abilities of our people have been recognised internally by our own management system and now by IRCA through this new approval scheme. I am delighted to receive certificate number 0001 and look forward to continuing to build our relationship with IRCA."*

## ABOUT IRCA

IRCA is the leading professional body for management system auditors. IRCA represents 10,000 certificated auditors in over 120 countries. IRCA works with employers and training organizations to develop and maintain training course requirements, professional experience and continuing professional development for auditors.

IRCA is a division of the Chartered Quality Institute (CQI) - the leading body for quality management professionals. It was established in 1919 and gained the Royal Charter in 2006, the CQI's vision is to put quality at the heart of every organization. The CQI exists to benefit the public by advancing the education in, and knowledge and practice of quality in the private, public and voluntary sectors.



L-R AVM Martin Clark, Director (Technical) MAA, Mr Vince Desmond Acting CEO CQI, RAdm Paul Chivers Director MAA

## 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](mailto:DSA-Enquiries@mod.uk).

For enquiries relating to the MRP, please contact us via [DSA-MAA-MRPEnquiries@mod.uk](mailto:DSA-MAA-MRPEnquiries@mod.uk)

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