

## SUMMARY OF RESPONSES TO NPA 01/2017 (Draft DASR 66)

### INTRODUCTION

1. **General.** Readers should note that this Summary of Responses outlines DASA's agreed policy and intended regulation changes and finalises the public consultation process in respect of this NPA. Only under extreme or unusual circumstances will DGDASA consider views or arguments opposing the views expressed in the Summary of Responses. Any member of the public having views or arguments to support an appeal against the decisions documented in this Summary of Responses may petition DGDASA to consider such an appeal.

2. **Background.** On 29 Jan 17, DASA released NPA 01/2017 for comment. The period for public comment on the proposals contained in the NPA closed on 31 Mar 17.

3. Four itemised responses were received. Many of the comments:

- a. reflected the novelty of the licencing concept within Defence
- b. reflected the fact that the draft regulation and staff advice was only partially correct or
- c. were requests for further information.

Nonetheless, the feedback identified a number of deficiencies in the draft regulation and highlighted the areas in which further explanatory material was warranted. Additionally, the planned education programme ('road show') should assist in educating the regulated community in the regulation.

4. DASA would like to thank those who took the time to respond to the NPA. The final regulation has been improved as a consequence of comments received.

5. Comments on editorial and typographical issues are not discussed in this summary of responses.

### ANALYSIS OF COMMENTS

6. Four substantive responses were received; they related to:

- a. the 21 year age limit before which licence holders can exercise their licences
- b. a proposal to reduce the eligibility period before TQ engineering officers can receive a C category licence
- c. a request to expand the types of tertiary qualifications for C category licence
- d. a proposal to amend the regulation to permit DASR 145 organisation to issue temporary amendments to licences.

#### **Reduction of the 21 year age limit**

7. **DASA response.** DASR 66 mirrors EASA and EMAR, imposing an age limit of 21 before individuals may exercise their licence (they are eligible to receive their licences at 18 years of age). Some respondents claimed that the 21 year old age limit would adversely affect capability.

8. In the context of the responses, it is likely that the respondents were confusing task

certification (signing for individual maintenance tasks) and issuing a Certificate of Release to Service (CRS). No age limits apply to the former, the only requirement is that the individual has been assessed and authorised by the DASR 145 QM as being competent in performing that task. However the proposal to reduce the age limit is not supported.

9. In signing a CRS, a licence holder is:

- a. attesting that all maintenance has been completely and properly carried out (or, if there is still outstanding maintenance, then it is fully disclosed), and
- b. that there are no non-conformances that might endanger safe flight.

10. Particularly where extensive maintenance has occurred (eg DM or a complex defect requiring considerable disassembly, fault finding etc) a junior technician may well not have sufficient knowledge and experience to be able to make the assessments as required by para 9.

11. Informal enquiries of a number of units revealed that there are no individuals authorised as Maintenance Managers (a close analogue of the licence holder's function) who are less than 21 years old.

12. Reducing the age limit below that required by EMAR and EASA may make Mutual Recognition more difficult - other NMAAs may have less confidence that DASR 145 organisations have appropriately experienced personnel exercising critical airworthiness-related decisions.

13. **Disposition:** Retain the 21 year old age limit.

### **Reduce the eligibility period for licencing TQ engineering officers**

14. **DASA response.** The principal path to a C category licence is via a B1 or B2 licence. However EASA, EMAR and DASR 66 permit a C category licences to be issued to TQ engineers. EMAR 66.A.30.a.5 requires TQ engineers to have:

- a. 3 years of experience working in a military aircraft maintenance environment on a representative selection of tasks directly associated with military aircraft maintenance including 6 months of observation of base maintenance tasks; or,
- b. experience as detailed by the NMAA but not less than 6 months of observation of base maintenance tasks

15. Military TQ engineers are subject to a rigorous selection and training regime; they are closely supervised in their formative years and they have extensive support and advice from more senior engineers and technical SNCOs. This environment supports a reduction of the three year eligibility criterion.

16. Contractor TQ engineers may not have the same degree of support as their military counterparts, but it is unlikely that a contractor would recruit an inexperienced TQ engineer to fill such a critical position. Furthermore, these individuals can not exercise their licences until they have been assessed as suitable and authorised by their DASR 145 organisation ie, the risk of inappropriately authorising an inexperienced TQ engineer rests with the DASR 145 organisation,

17. **Disposition:** Use the flexibility provided in EMAR 66.A.30.a.5 and write a new,

AUS, clause, as follows:

- a. Military TQ engineers are eligible for a C category licence 12 months after completing the relevant Service's basic engineering officer training, completion of Type course(s) relevant to their position and no less than 6 months observation of Base maintenance.
- b. Contractor TQ engineers are eligible for a C category licence 12 months after completing company's basic engineering officer training, completion of Type course(s) relevant to their position and no less than 6 months observation of Base maintenance.

### **Expand the types of tertiary qualifications for C category licence**

18. **DASA response.** Currently, AMC to DASR 66.A.30.a.5 restricts eligibility for C licences for TQ engineers to a Bachelor degree in Aeronautical, Mechanical, Electrical, Electronics or Mechatronics disciplines. The respondent states that EASA allows 'Diplomas, Advanced Diplomas, Associate Degrees and the like' and that the DASR is overly restrictive.
19. The respondent's statement is inaccurate; EASA66.A.30 (a) 5 states: 'for category C obtained through the academic route: an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution recognised by the competent authority'.
20. While the respondent has not interpreted EASA's regulation accurately, the claim that the DASR is overly restrictive has merit. Further, the restriction to a BE is not aligned with DASR 145, or the work which is underway between DASA and IEAust on suitable qualifications to achieve 'Chartered' status.
21. **Disposition:** Change the AMC to align eligible qualifications for a C category licence with DASR 145.A.30 (b) (3) AUS; namely by changing the AMC to read:

#### **Qualifications:**

1. A four-year Bachelor of Engineering degree under an Australian accredited or recognised program in Mechanical, Mechatronics, Aerospace, Aeronautical, Electronics, Software or Electrical Engineering, or
2. Diploma level, or equivalent, qualification in appropriately related aviation field.

### **Temporary amendments to licences**

22. Some respondents were concerned that DASA may not be able to amend licences (add aircraft ratings, remove exclusions or add extensions) in a timely manner and impact the DASR 145 organisation's ability to use the licence holder in a wider role.
23. **DASA response.** If DASR 145 organisations are proactive, they could submit the request to change the licence while the individual is completing the training which will result in the change to the licence, nominating the date on which the training is planned for completion. In such circumstances, the DASA should have sufficient time to issue an amended licence.
24. If the DASR 145 organisation is not pro-active, there may be a delay before the

licence is amended. However, particularly while the regulated community has a relatively limited understanding of DASR 66, there is a risk that inappropriate changes to licences could be offered by the DASR 145 organisation. A better alternative is to permit the DASR 145 organisations to issue temporary changes to individual's certification authorisations (ie expand the scope of the individual's authorisations).

25. **Disposition:** Add new AMC to permit DASR 145 organisations to make temporary changes to CRS certification authorisation, but which require the DASR 145 organisation to report any such changes to certification authorisation within 24 hours and to submit the licence application to the Authority to amend the licence.

**Other comments**

26. The responses to the NPA also raised a number of more minor matters. The comments and their disposition are in Annex A.

Original Signed  
14 July 2017.

Director Aviation Regulation  
Defence Aviation Safety Authority

**Annex:**

A. Consolidated list of less substantive comments

**CONSOLIDATED LIST OF LESS SUBSTANTIVE COMMENTS**

LSN	NPA Reference	Comment or suggested change	Explanation	Disposition
1	GM 66.A.15 (AUS)	Request clarification	<i>"Individuals are not permitted to issue a Certificate of Release to Service until they are 21 years old."</i> Is this referring to Category A MAML personnel issuing certificates of release to service following minor scheduled line maintenance or is the statement specific to Category C MAML personnel issuing "certificate of release to service for aircraft" after the completion of all maintenance. [It is likely that Category A MAML personnel can be under 21 years of age.]	No change required.  N/A (Respondent did not appreciate that the 21 year age limit applies to all licence categories.)
2	66.A.30 1A. (ii)	Request clarification	To apply for a Category A MAML an applicant shall have acquired: - 2 years practical maintenance experience and completion of training. Can this qualifying period be further reduced through the consideration of hands-on practical training performed during aircraft type specific training (an A/C Equipment Application Course (EAC))	Amend AMC to clearly specify that basic training at RAAFSTT provides sufficient practical experience to entitle ADF technicians to an A licence when they have completed six months of practical maintenance experience after they have completed their Type course(s) and completed Module 10

<p>3</p>	<p>66.A.30 2 (iii)</p>	<p>Request clarification</p>	<p>To apply for a Category B1.3 and B2 MAML an applicant shall have acquired: - 2 years practical maintenance experience and completion of training. Can this qualifying period be further reduced through the consideration of hands-on practical training performed during aircraft type specific training (an A/C Equipment Application Course (EAC)). [Such a provision exists at (iv) where it states that <i>"the 3 years practical experience can be reduced by the duration of the practical training given during the basic training course with a maximum reduction of 1 year."</i>]</p>	<p>No change required.</p> <p>The practical experience duration is reduced from three to two years for ADF personnel in recognition of the practical experience completed during basic training (RAAFSTT) and Type course(s)</p>
<p>4</p>	<p>66.A.30 Basic experience requirements (f)</p>	<p>Request clarification</p>	<p><i>Experience shall have been acquired within the 10 years preceding the application for a MAML or the addition of a category or subcategory to such a MAML.</i> For Category C: As Engineering Officers may be at different Aircraft types in each posting, will this imply that a new Licence will have to be sought once the correct experience on type has been achieved, i.e. a new licence and qualification period if previous experience is a difference Aircraft Type?</p>	<p>RFI only, no change required.</p> <p>New licence not required, only a change to the licence to add the new rating (type)</p>
<p>5</p>	<p>Applicability General</p>	<p>The Part 66 DASRs are not clear that licence requirements are for on-aircraft only. Refer GM 66.A.20(a) (6) AUS – “For the avoidance of doubt, ‘certification’ in the previous para (66.A.20(a)6) refers to the act of signing a Certificate</p>		<p>Amend applicable AMC and GM to clearly state that licences apply following <b>on-aircraft</b> maintenance only, and write new GM providing guidance on who may release components following maintenance</p>

		<p>of Release to Service after the completion of base maintenance.” However, other elements of the DASR Part 66 refers to just the general certification of the Certificate of Service release (CRS), which also includes Components.</p>		
<p>6</p>	<p>Applicability General</p>	<p>Additionally, The use of MAML does not seem appropriate as described below:</p> <ul style="list-style-type: none"> <li>• There is no requirement to utilise licence holders for Components or Deeper Maintenance. The certification of the CRS in these instance is by suitable qualified and authorised individual under the DASR 145 AMO approved national equivalent qualification as defined in the MOE.</li> </ul>		<p style="background-color: #cccccc;"> </p> <p>No change required.</p> <p>Respondent is correct wrt component maintenance and the change at LSN 5 will clarify this aspect</p> <p>Respondent is incorrect regarding Base maintenance ('DM') - a C category licence holder is required, and is clearly articulated in the Regulation.</p>

- The release of aircraft following line maintenance does require MAML. However, under the ADF MMS aircraft are not released from Deeper Maintenance for extended period of time (e.g. 6months / 100 FHRS) like the CASA/EASA environment. The ADF MMS current has aircraft to be released by a DASR 145 approved organisation, with LINE maintenance privileges, on a daily basis to the aircrew on behalf of the CAMO. Like in the DM environment, a DASR 145 approved for LINE maintenance to certify the CRS utilising suitable qualified and authorised individual under the DASR 145 AMO approved national equivalent qualification as defined in the MOE.

No change required.

The respondent's comments are unclear. Clarification was sought, but no further response was provided

After Sep 18, all CRS (ie following Line or Base maintenance) can only be issued by a licence holder.



		<ul style="list-style-type: none"> <li>• The ONLY scenario when a MAML holder may be required during LINE maintenance, is circumstances when minor maintenance is done under Captains Authority (Not a DASR scenario by the way). Even in these instances, the aircraft is still release back to maintenance (i.e. under DASR 145 privileges), where the approved national equivalent qualification as defined in the MOE as again used.</li> </ul>		<p>No change required.</p> <p>Respondent is incorrect - any Line (or Base) maintenance requires a CRS, issued by an authorised licence holder.</p>
<p>7</p>	<p>Applicability General</p>	<p>In general, given the requirements for a DASR 145 AMO, who has privileges to perform both BASE and LINE maintenance, who have staff approved under the “national equivalent qualifications”, the NPRM does not make a clear distinction as to when the provisions for the need to MAML or the</p>		<p>Amend applicable AMC/GM to clarify:</p> <ul style="list-style-type: none"> <li>* that national equivalent qualifications applies only during transition to DASR 66,</li> <li>* that a CRS is required whenever on-aircraft maintenance occurs</li> <li>* who may release components following maintenance</li> </ul>

		<p>“national equivalent qualifications” is required. Even if the determination is on-aircraft ONLY, the NPRM does not make this distinction clear for COMPONENTS.</p>		
8	Applicability General	<p>DASR Part 145 (145.A.30 and 145.a.35) allows for National Equivalent Qualification in lieu of DASR Part 66 MAML requirements. Is DASR Part 66 implementation expected to affect, or remove, the “or” statement under DASR Part 145 requirements to allow for National Equivalent Qualification?</p>		<p>Amend applicable AMC/GM to clarify that the national equivalent qualifications applies only during transition to DASR 66 ie 'national equivalent qualification' will be removed in Sep 18 when DASR 66 comes into effect</p>
9	Applicability General	<p>How will contractor personnel working within an ADF DASR 145 AMO be managed? Is it expected contractors within an ADF AMO will have a MAML, and what/who/ which AMO and/or RM will be required to address the AMC 66.A.10(c) requirements?</p>		<p>Write GM to provide advice on how contractor staff apply for a licence, noting that any contractor personnel who issue a CRS will require a licence</p>

<p>10</p>	<p>Applicability General</p>	<p>How will Commonwealth staff, or contractors working for the commonwealth, be treated? At Oakey, The Army and Contractors from the Base Support Organisation conduct refuelling. Additionally, the Army ground crewmen conduct a range of activities such as arming, loading of EO stores, weapons preparation, loading of Countermeasures (Chaff and Flares), aircraft towing and applying power (for refuelling). Both groups of personnel hold a Maintenance Authority under the old TAREGs issued by the Contractor AMO RM after assessment by AMO Assessors. Unlike having Army staff embedded in the AMO working with us, these contract and Ground crewmen act almost autonomously where no supervision is</p>		<p>As per LSN 9</p> <p>Ground crewmen need to be task authorised by the DASR 145. They do not issue a CRS, so do not need to be licenced</p>
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		provided from the MO authorised and are not in the Chain of Command for the RMs.		
11	Applicability LINE maintenance	<p>Is a Part 66 licence requirements for maintenance performed on-aircraft when the aircraft is released to the maintenance organisation (i.e. returned to Part 145). That is:</p> <ul style="list-style-type: none"> <li>•Is there a need for Category A, B1 &amp; B2 MAML holders to conduct the on-aircraft work? or</li> <li>•Is it sufficient to have a Category C MAML holder complete the certificate of release thereby assuring that aircraft maintenance has been completed correctly using the appropriate documentation, processes, qualified personnel and parts.</li> </ul>		
				<p>No change required.</p> <p>Personnel performing on-aircraft maintenance must be authorised by the DASR 145 but they do not need a licence.</p> <p>Licence holders issue CRS</p>
				<p>No change required.</p> <p>The C licence applies when Base maintenance has occurred.</p>

<p>12</p>	<p>Applicability Individual v AMO</p>	<p>The Part 66 still allows the application for a licence by and individual. In the industry environment, the application (Form 19) needs to be endorsed, not just checked by the RM. Refer AMC 66.A.10(c), to ensure that industry defines to needs of the AMO, not the individuals. What circumstances would such an application be accepted and how can an individual apply without RM endorsement?</p>		<p>Write new GM clarifying how individuals may apply for a licence either to:</p> <ul style="list-style-type: none"> <li>* issue a CRS on behalf of the DASR 145, or</li> <li>* obtain a licence to improve their employability</li> </ul>
<p>13</p>	<p>B1/B2 Support Staff</p>	<p>The use of the term B1 / B2 as ‘support staff’ (refer GM 66.A.20(a) (2) (AUS)) appears to be the DASR equivalent of utilising ‘cross trained’ technicians. How will the requirements for B1/B2 support staff qualifications, be considered against the “national equivalent qualification” for non-trade, and cross-trade personnel under</p>		<p>Respondent has not appreciated the purpose of B1/B2 support staff.</p> <p>Write new GM explaining:</p> <ul style="list-style-type: none"> <li>* the role of B1/B2 support staff and</li> <li>* how cross-trade training will be managed by licence extensions</li> </ul>

		145.A.30(e)?		
14	B1/B2 Support Staff	How will the process of attaining a Part 66 MAML be managed, where Military Aircraft Type training is provided by a non-Military Part 147 approved training organisation?		No change required.  Question will be addressed by DASR 147.
15	Category C MAML requirements	Category C MAML – Refer AMC 66.A.30.a.5 (AUS), need 6 month experience in Base Maintenance task, hold the AMC be updated to include Line Maintenance experience as a ‘support staff’, as in the ADF MMS, this where the ADF Maintenance Manager (MM) experienced is gained?		No change required.  Respondent does not appreciate that many maintenance activities occurring at Squadron level is Base maintenance. Observation of only Line maintenance (ie simple maintenance) will not provide sufficient basis for a C licence
16	Conversion procedures	Notwithstanding the requirements defined in 66.A.70 – Conversion provisions, will MAML holders still need to sit the examination requirements defined in Appendix II? What are the credit for examinations, other than		GM to 66.A.70 clearly demonstrates that existing 'certifying staff qualifications' are eligible for conversion.  Staff do not need to sit the examination requirements of Appendix II, hence credit arrangements are not applicable

		<p>basic knowledge examinations carried out in Maintenance Training Organisations approved in accordance with DASR 147, that will need to be granted by the NMAA as defined in Annex A? How does this relate to the Basic Knowledge requirements defined in Appendix II?</p>		<p>The NMAA is responsible for developing conversion process</p> <p>No change required, but this matter will be included in FAQs</p>
<p>17</p>	<p>Conversion procedures</p>	<p>AMC 66.A.50 (c) AUS, addresses the requirement of Conversion reports complied by the NMAA, to address the qualifications for a MAML, by for each type of qualification, including the associated national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these. How will these conversion reports be managed in reference to 66.A.70?</p>		<p>No change required.</p> <p>The conversion process will identify any licence exclusions and the NMAA is required to also advise the licence holder on what training is required in order to remove those exclusions.</p>

<p>18</p>	<p>Qualification Framework</p>	<p>GM 66.A.10(f) (AUS) indicated that “Aeroskills qualifications or Statements of Attainment provide the basis for licences, however the NMAA may consider a non-Aeroskills qualification or Statement of Attainment.” However, Appendix I provides a cross reference matrix to the CASA/EASA licensing framework. DASA should consider provide updating Appendix 1 with GM (AUS).</p>		<p>No change required.</p> <p>Non-Aeroskills-based qualifications unlikely to lead to licenceable outcomes.</p> <p>Mapping spreadsheets linking syllabus requirements to CASA and ADF units of competence to be made available via DASA website</p>
<p>19</p>	<p>Qualification Framework</p>	<p>The Appendix 1 modules have their origins in the EASA / CASA licencing framework. Has an assessment been undertaken to map these modules to the ATQF MEA framework?</p>		<p>No change required.</p> <p>Refer LSN 18.</p>
<p>20</p>	<p>Qualification Framework</p>	<p>What ATQF MEA modules would satisfy the requirements of the various MAML Categories?</p>		<p>No change required.</p> <p>Refer LSN 18.</p>



	<ul style="list-style-type: none"> <li>•What is the equivalent training / qualification for Module 10 Aviation Legislation which references DASRs?</li>   <li>o What is the equivalent training / qualification for DASR Modules which are in addition to the CASA licence framework?</li>   <li>For example: CASA Licence Framework Module 11 Aeroplane Aerodynamics, Structure and Systems has 18 elements, while the DASR equivalent has 21 elements</li> <li>•11.19 Integrated Modular Avionics</li>   <li>•11.20 Cabin Systems</li> </ul>		<p>No change required.For ADF technicians, post-RAAFSTT promotion courses meet the requirements for Module 10. Intent is to get CASA-unique MEA units for Module 10 converted to apply to both CASA and DASA regulations, or raise equivalent MEA units applying only to DASA</p> <hr/> <p>No change required..</p> <p>MEA units identified. Mapping to be publically available</p> <hr/> <p style="background-color: #cccccc;"> </p> <hr/> <p>No change required.</p> <p>MEA units identified. Mapping to be publically available</p> <hr/> <p>No change required.</p> <p>MEA units identified. Mapping to be publically available</p>
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		<ul style="list-style-type: none"> <li>•11.21 Information Systems</li> </ul> <p>There are other minor discrepancies between CASA licence requirements and DASR licence requirements.</p> <ul style="list-style-type: none"> <li>•For example: CASA A Licence Module 3 Electrical Fundamentals, Element 3.6 DC Circuits is not required, where DASR requires familiarisation with the principle elements of the subject (Level 1).</li> <li>•How will this be attained? What ATQF MEA module is required?</li> </ul>		<p>No change required.</p> <p>MEA units identified. Mapping to be publically available</p> <hr/> <p>Noted. Mapping to be corrected</p> <hr/> <p>No change required..</p> <p>MEA units identified. Mapping to be publically available</p> <hr/> <p>No change required.</p> <p>MEA units identified. Mapping to be publically available</p>
<p><b>21</b></p>	<p>66.A.20 (a)(3) <i>Privileges</i></p>	<p>As B2 licence holders do not automatically include any A subcategory, can we assume DASA will issue A licenses (with exclusions) to B2 license holders automatically?</p>		<p>RFI only, no change required.</p> <p>Training at RAAFSTT (for all trades) covers most A licence requirements, therefore ADF B2 licence holders will also be issued with an A licence</p>

22	66.A.20(a)(6) <i>Privileges</i>	As armament authorisations are extensions on a base licence, what licence will ARMTECH's be required to hold. This appears to be going back to the TTR days is likely to detrimentally affect EO capability		RFI only, no change required.  ARMTECHs will be issued with an A licence and a B2 licence with extensions for EO-related systems (and exclusions against avionics systems)
23	66 Annex B <i>License Conversion Procedures</i>	What is the NMAA's plan for mapping post-IET type courses to DASR 66 syllabus requirements?	While DASA has mapped IET to DASR 66 syllabus requirements, AMG is unaware that any such mapping has been undertaken on post-IET courseware.	RFI only, no change required.  Post-IET type courses mapped to DASR 66 syllabus. Mapping to be publically available
24	66.A.20 and 145.A.35	Assuming a license is required to conduct maintenance, what is the mechanism for the AM to authorise the conduct of maintenance by personnel who do not hold the necessary privilege on their licence? Can the AM authorise a temporary extension? If not, who will be the delegate for this function?	Under TAREGs the SMM had the means for authorising personnel who may not have possessed the preferred QTE to undertake a specific task IOT meet an operational imperative. The same flexibility does not appear to be available under the DASR. Under 145.A.30 (j)(5), the RM can issue a one-off authorisation to issue a CRS noting all work has to be verified on return to the operating unit. Similarly, under 145.A.35(c) AMC the AM may temporarily waive the six month experience requirement. The RM can also authorise aircrew as 'certifying staff' under 145.A.30(j)(4).	No change required.  Assumption incorrect - licences required only for CRS; maintenance can be undertaken by anyone authorised (as competent) by the DASR 145 QM.145.A.30 (j) considered to provide adequate flexibility.

<p>25</p>	<p>66.A.25 and 66.A.45</p>	<p>285SQN will disband at EOY17 with the majority of training functions subsumed by AMTDU and 37SQN. Will the NMAA require these organisations to comply with the education requirements outlined in Appendixes I, II and III?</p>	<p>This issue will also greatly influence 35SQN's workforce design as current CONOPS have MRU delivering all in- country technician training until 2020 or later.</p>	<p>No change required.  Will be addressed by DASR 147.</p>
<p>26</p>	<p>66.A.70 <i>Conversion Principles and Annex B License Conversion Procedures</i></p>	<p>Will the initial licence be determined based on generic 'AVTECH' or 'ATECH' categories, or will a deeper look at individual members RTE prior to initial licencing take place (i.e. Will fully authorised grey trade technicians need to immediately re- apply for additional certification privileges following the initial issues of their licence)?</p>	<p>35SQN employ a grey workforce. However, it is likely that their type training does not meet the requirements of DASR 66. If this training is not accepted as equivalent, it is likely to lead to capability impacts and costs.</p>	<p>No change required  Licences to be based on each individual's QTE and eRTE authorisations.</p>

<p>27</p>	<p>66.A.20</p>	<p>The regulation appears to restrict the ability to provide a cross-trade authorisation for independent maintenance inspections as an enduring authorisation. This will have some capability impacts.</p>	<p>AMC3 145.A.48(h) states that an II does not "...[issue] a maintenance release [and] therefore is not required to hold certification privileges. However they should be qualified to carry out the inspection." As such, it appears an II is not required to be licensed. However, this appears at odds to advice received from DASA that an II will still need to maintain six months currency within a 24month period - a currency requirement associated with holding a license.</p>	<p>Cross-trade CRS compatible with DASR 66 (via extensions or removal of exclusions).</p> <p>Cross-trade maintenance is controlled by the DASR 145, via maintenance authorisations issued by the QM and for which the maintainer does not need a licence</p> <p>Individuals carrying out error capturing activities (IMIs) do not have to have a licence.</p>
<p>28</p>	<p>66.A.20(b)(2)</p>	<p>While noting the GM to this regulation provides some guidance, additional clarification is required to determine what maintenance experience is applicable (and who makes this determination)?</p>	<p>There are some positions within a DASR 145 AMO that restrict/constrain a members ability to perform maintenance (USA, MAINTCOORD, MCS). How should these members be treated especially as the OER generated workforce design assumes these personnel are conducting such functions 100%? Removing them from their primary duty is likely to, amongst other things, impact governance.</p>	<p>No change required.</p> <p>Eligible personnel will be issued with licence(s), the DASR 145 organisation will have to determine how many of those licence holders can comply with licence currency requirements.</p> <p>Note that individuals do not have to have a licence in order to be authorised to perform maintenance</p>

<p>29</p>	<p>66.A.30(a)</p>	<p>The stated required experience levels appear to apply limitations on receiving Part 145 units for when a member can apply for a license. This will have capability impacts.</p>	<p>This requirement appears to contradict MPIP principles which seek to remove impediments that unnecessarily constrict the employment of technicians after IET (ie. MPIP Project 36A). Furthermore, it appears at odds with moving to an outcome based regulatory system given it unnecessarily constrains a technician to what appears to be an arbitrary selected period.</p>	<p>No change required.</p> <p>Qualifying periods are applicable to licence holders only, not when an individual can be authorised by the DASR 145 QM to perform maintenance.</p> <p>Qualifying periods are the same as EASA/EMAR periods and reflect many years of aviation experience</p>
<p>30</p>	<p>145.A.35(c) and 66.A.20(b)(1)</p>	<p>The requirement to maintain six months currency within a two year period is likely to impact capability due to the TMF posting fundamentals as outlined in AAP1005. Similarly, the one year experience required to achieve an additional type rating is also likely to impact capability.</p>	<p>Experience requirements under DASR66 will mean that personnel posted under TMF posting principles from SPOs, WGs and HQ elements will not meet currency requirements. This will result in them being unable to exercise their privileges for at least six months impacting capability. Note that this impact is likely increased when a member is posted from another platform requiring that member to seek type certification on the new platform where one year experience is required IOT achieve an addition to their license.</p>	<p>No change required.</p> <p>DASR 66.Appendix III, para 6 allows a shorter period than 6 months and caters for individuals who have only been issued with a licence for a short period and for those posted/recruited from non-maintenance organisations. Individuals posted from one aircraft type to another carry their licence with them. However, they must complete type training and have their licences endorsed with the new type. It is then up to the DASR 145 QM to determine when that individual is ready to exercise the licence and authorise that</p>

				<p>person. How long it takes before the DASR 145 QM will authorise such individuals to exercise their licences is not fixed and depends on how quickly the individuals take to demonstrate they have achieved the appropriate standard to issue a CRS (ie 'come up to speed').</p>
31	66.A.20(b)(1)	<p>Given the currency requirements required to gain and exercise the privileges granted under a license, what license categories does the NMAA envisage it will issue to FSGTs and WOE's? How does the NMAA expect these members to maintain their currency as per DASR requirements given their primary role is that of technical workforce management not the direct conduct of maintenance?</p>	<p>While noting these members will undertake Duty Engineer or Shift Boss (and are likely to issue CRS under these roles), it is possible that the time doing so will not cumulatively add up to six months across a two year period.</p>	<p>No change required.</p> <p>FSGTs and WOE's (E) will be issued licences based on their QTE &amp; eRTE authorisations. For the main trades, they will typically be issued with an A licence and a B1 or B2 licence.</p> <p>The DASR 145 organisation is responsible for ensuring such individuals remain current iaw DASR 66 requirements</p>
32	66.A.20(b)(2) AMC	<p>Will DASA be upgrading eRTE to capture required experience information or will each individual require a log book? If the</p>	<p>The AMC to 66.A.20(b)(2) states that eRTE may be used as a log book for meeting the need to document relevant maintenance experience. eRTE does not log the specific content detailed in the AMC. The requirement to maintain a log book</p>	<p>No change required.</p> <p>Task authorisation process, via eRTE to continue</p>

		latter, how will these be controlled?	appears to roll back some of the benefits delivered under MPIP Project 36A.	
33	66.A.20(a)	Does DASA expect multiple CRS' to be issued to ensure the entire scope of maintenance conducted is appropriately certified? If so, how will this be recorded in CAMM2 or equivalent?	Currently, Desk SGTs conduct the maintenance release irrespective of their authorisation scope. However, DASR 66/145 only allow a CRS to be issued for the conduct of activities that fall within that individual's licensed scope.	No change required.  Only one CRS is currently possible due to CAMM 2 functionality, however DASA will request AEURG to consider changes to CAMM2 to permit multiple CRS  DASR 145 processes will have to ensure that B1 and B2 licence holders only issue a CRS where the maintenance is within their scope
33	Appendix III <i>Military Aircraft Type Training and Examination</i>	What training is necessary to meet Military Type Rating requirements? What will the NMAA do if the post-IET courses do not meet syllabus requirements?	While noting that existing courses may not meet DASR 66 syllabus requirements, it is assumed that required type courses at minimum, would be ground handling, aircraft safety and the associated license holder's type system courses.	Amend AMC to indicate that current Type courses are satisfactory and do not have to be amended to meet Appendix III requirements ie 'grandfathered'.  Appendix III outlines content of Type courses.



<p>34</p>		<p>In addition to the planned one-day DASR 66 courses, recommend DASA provide introductory (town-hall) briefs to the working level at each base explaining at minimum the benefits/need for licensing (CASA recognition? Foreign Force recognition?), and what having a license means you can and can't do.</p>	<p>In generating this response, it became clear that there is a fundamental lack of understanding of what licensing is meant to achieve and how it will work at the working level, especially in relation to current processes and how the licensing aligns (or doesn't) with these processes. While noted that DASA is scheduling DASR66 courses, it is nevertheless strongly recommended that DASA undertake multiple town halls or similar Introductory briefs on licensing and what it means to have a license and what the means the holder can (and can't) do. It may be best to schedule these town halls prior to the courses to facilitate better discussion on the courses. It would also reduce the number of personnel who need to attend the courses thus reducing the impost on the technical workforce noting the course scope is for any member wishing to exercise privileges under a license.</p>	<p>Comment only - no change required.</p> <p>DASR 66 Awareness training (town-hall) briefings will be delivered at all major bases/cities</p>
<p>35</p>	<p>Appendixes I, II, III and IV</p>	<p>Noting the underlying training requirements for B1 and B2 licenses how does the NMAA see cross-trade employment working?</p>	<p>The costs incurred to remove an exclusion or add an extension under DASR appears to not provide adequate ROI if the training requirements as stipulated in DASR 66 are employed. The inability to employ cross-trade employment will roll back benefits attributable to MPIP Project 13B.</p>	<p>No change required.</p> <p>Refer LSN 13. Exclusion removal or extension only required if the individual is issuing a CRS for 'cross trade' maintenance; not performing it</p>
<p>36</p>		<p>IAW AMC3 145.A.48(h) an individual who is not CRS certified may be an independent inspector provided they are suitably qualified (and assuming the QM authorises them).</p>		<p>No change required.</p> <p>Individuals undertaking error capturing activities (IIs) do not need a licence to perform this function (but must be authorised by the DASR 145 QM)</p>

		Is it DASA's intent for IIs to not be license holders?		
37	66.A.20(b)2 AMC	Who decides what is a similar aircraft WRT determining if a member's maintenance experience is applicable?		RFI only, no change required.  The NMAA determines similarity of Type
38	Throughout 145 and 66	Remove existing ambiguity around what it means when stating someone is certifying maintenance (i.e. clearly define and delineate between what it means when saying 'Signing for maintenance' vice 'Certifying for maintenance').	In preparing this NPA response, a common issue which was highlighted was confusion in what is meant when the regulations mention 'certification'. For example, one could interpret the regulations such that whenever certification is mentioned, it is referring to the issue of a CRS (or Form 1 if in a workshop). The use of 'certification' is also used at times to indicate the signing for maintenance. There is arguably sufficient ambiguity throughout the regulations such that either of the following interpretations could be seen as what is required: (1) Maintenance can be signed by any competent mechanic provided the QM has authorised them as per DASR 145. A CRS is issued at the end of maintenance conduct by an appropriate license holder depending on the scope of maintenance conducted. (2) Similar to the 059 requirement for a Trade Supervisor to certify the work of a Tradesperson, an appropriate license holder (A/B1/B2) is required to sign for maintenance in CAMM2 (or equivalent). An independent license holder with appropriate scope then issues the CRS.	Amend DASR 145 and 66 AMCs to clarify these terms

			DASA's intent requires clarification and commentary added to remove all current ambiguity.	
<b>39</b>	Appendix III <i>Military Aircraft Type Training and Examination</i>	Does the NMAA intend to approve course duration as per this regulation or will this be delegated to another Unit/Position (e.g. TST)? If the latter, whom?		To be addressed by DASR 147
<b>40</b>	Appendix III <i>Military Aircraft Type Training and Examination</i> Para 4.2	Who determines who an 'appropriately qualified' assessor is? For example, will a AAA be appropriately qualified?		Amend DASR 66 AMC/GM to provide more information on this term.  The DASR 145 determines suitability

<p>41</p>	<p>DASR Acronym List, 145.A.50, GM2 145.A.50(d) [Multiple references]</p>	<p>Replace throughout DASR CRS or Form 1 in lieu of ARC.</p>	<p>Use of the term Authorised Release Certificate (ARC) is confusing due to its similarity with MARC despite the two forms being used for completely different things.</p>	<p>No change required.  While there may be some confusion between ARC and MARC, there is greater confusion between 'CRS' as applied to on-aircraft &amp; component maintenance. ARC rather than CRS for components, should assist organisational understanding on when a licence holder is required</p>
<p>42</p>		<p>When conducting maintenance under Continuous Charge, is the release of the aircraft back to Aircrew akin to an A licensed member conducting CRS?</p>		<p>RFI only, no change required.  If on-aircraft maintenance occurs then a CRS is required. The type of maintenance will determine what category of licence is required to issue the CRS.</p>
<p>43</p>	<p>145.A.50 AMC</p>	<p>Will CAMM2 be updated to capture CRS requirements (e.g. DASR 145 Approval Number)?</p>	<p>While DASR 145, this is related to member's issuing CRS (i.e. a license holder)</p>	<p>RFI only, no change required.  In the medium term it is desirable to change CAMM 2 to reflect DASR 66. AEURG to consider</p>
<p>44</p>		<p>Given CSET appears to be looking to combine AVTECHs, CETECHs and CISCONs, how does DASA intend to manage this combined employment group under</p>	<p>The Cyberspace Support and Enabling Technical Workforce Project (CSET WP) is looking at combining the CETECH, CISCON, and AVTECH employment groups. This would see AVTECHs working on both ADGE and Aircraft throughout their careers. However, CETECHs and CISCONs are highly unlikely to hold the underpinning</p>	<p>Comment only, no change required.  CETECHs and CISCONs unlikely to be issued licences, but can be authorised by the DASR 145 QM to conduct</p>

		DASR 66? How will currencies be maintained? Will ADGE experience count towards currency?	competencies required to gain a licence but could be posted to aviation maintenance workforces.	maintenance
45		Will DASA issue licenses to ASTFITT/ALSFITTs?	Some ASTFITT/ALSFITT SNCOs currently conduct maintenance release. Additionally, some Specialist Trade SNCOs oversee combined workshops. These SNCOs may be required to issue Form 1's with potential for some to be on components outside of their trade.	RFI only, no change required.  Limited numbers of small trades personnel have Maintenance Manager authorisations, they will be issued licences (manually) which reflect this authorisation.
46	NPA 01/2017 (para 3) and the DASR 66 FAQ	DASA are requested to provide clarification of requirement for, and who can perform, the DASR 145.A.50 (Certification of maintenance) functions.	References note that a DASR 66 license will only be required for personnel who sign a Certificate of Release to Service (CRS). However, there is some conflicting/confusing wording in DASR 145, and in communication received from DAVCOMP-DASA to AMG, on the requirements for a DASR 66 License.	As per LSN 38.  Previous DASA staff advice on use of licence holders inaccurate
49	(GM 145.A.50(a) AUS)	Who can perform? (carry out maintenance)	Requirement - DASR 145 requires an organisation to ensure that any individual who carried out maintenance on its behalf (either aircraft of component) is assessed as competent to carry out the maintenance, or is supervised by an individual who is assessed as competent' (GM 145.A.50(a) AUS).  Who can perform - Individual assessed as competent, or supervised by an individual who is assessed as competent (GM 145.A.50(a) AUS)  Question? - To translate to current authorisation	As per LSN 38

			systems, is this akin to process of a Tradesman signing for work, supporting a Trade Supervisor who is acting as ‘Certifying Staff’ for a two signature maintenance task?	
50	AMC2 145.A.50(a) AUS	Who can perform? (carry out Maintenance Certification)	Requirement - ‘All aircraft maintenance carried out will be covered by a maintenance certification’ AMC2 145.A.50(a) AUS  Who can perform? - Certifying staff. Refer to LSN1a below for expanded discussion/question.	As per LSN 38
51	AMC2 145.A.50(a) AUS	Is there a requirement for all staff who certify discrete maintenance tasks (including A license scope) to have a license; if there is a subsequent CRS (aircraft or component) signed by an appropriately licensed individual?	In DGLOG/DASA staff discussions on 07 Mar 17, DASA explained a CRS could only be issued by a licence holder. However the following DASR references seem to contradict this position. 145.A.30 (g) ‘Any organisation maintaining aircraft, except where stated otherwise in paragraph (j), shall in the case of aircraft line maintenance, have appropriate aircraft type rated certifying staff, qualified as category B1, B2 or national equivalent qualification in accordance with DASR 66 and DASR 145.A.35. In addition such organisations may also use appropriately task trained certifying staff qualified as category A or national equivalent qualification in accordance with DASR 66 and DASR 145.A.35 to carry out minor scheduled line maintenance and simple defect rectification...’ 145.A.35 (b) ‘Excepting those cases listed in DASR 145.A.30(j) the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or	Previous DASA staff advice on use of licence holders inaccurate

		<p>subcategories and any type rating listed on the aircraft maintenance licence listed in DASR 66 or national equivalent requirement, subject to the licence remaining valid throughout the validity period of the authorisation and the certifying staff remaining in compliance with DASR 66 or national equivalent requirement.’ AMC 145.A.35 (b) ‘The organisation issues the certification authorisation when satisfied that compliance has been established with the appropriate paragraphs of DASR 145 and DASR 66. In granting the certification authorisation the maintenance organisation approved under DASR 145 needs to be satisfied that the person holds a valid DASR 66 Military Aircraft Maintenance Licence or national equivalent and may need to confirm such fact with the NMAA that issued the licence.’ Potential resource impost (implementation and sustainment). If the answer to this question is yes, there will likely be significant resource implications on the Air Force regulated community, particularly the productivity of AC/LAC workforce and any more senior staff returning to flightline posts after a period out of the maintenance environment.</p>	
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<p>52</p>	<p>DASR M.A.801 and CRS.’ GM 145.A.50 (a) AUS</p>	<p>Who can perform? (Certification of Release to Service (CRS) for Aircraft)</p>	<p>Requirement - Refer to DASR M.A.801, similar to extant Aircraft Maintenance Release process ‘A certification evidencing appropriate completion of Maintenance, made by appropriately qualified persons authorised by the organisation for the purpose of CRS.’ GM 145.A.50 (a) AUS</p> <p>Who can perform? - Category B1 or B2 (for line maintenance) or C licensed (for Base Maintenance) individuals. Refer to LSN1b and LSN1c below for expanded discussion/questions.</p>	<p>As per LSN 38</p>
<p>53</p>	<p>DASR M.A.801 and CRS.’ GM 145.A.50 (a) AUS DASR M.A.802</p>	<p>1b. Will DASA issue B Licenses (with significant exclusions) to ALSFITT staff to enable this efficient CRS process to continue?</p> <p>1c. Noting B1 and B2 cover different trade scopes, do two CRS certifications have to be completed (1 by each) if line maintenance has included work covering these two trade scopes?</p>	<p>Under current Air Force maintenance release processes, some Airworthiness critical Aeronautical Life Support Equipment (ALSE) components such as Aircrew Oxygen masks and G Suits are released directly to Aircrew (i.e Released to Service) through a CAMM2 release process which is not considered during the Aircraft CRS. As such, this CRS of Airworthiness critical ALSE is an ‘outsourced’ portion of the Aircraft CRS. This release is performed by appropriately qualified SNCO ALSFITT staff who have the competence to assess the requirements for Aircraft CRS (IAW DASR M.A.802) specifically for these ALSE components.</p>	<p>RFI only, no change required.</p> <p>Eligible small trades personnel with Maintenance Manager authorisations will be issued with a licence (with numerous exemptions.</p> <p>Only ALSE which is part of the aircraft CBD (eg Top Owl helmet) will be part of the aircraft's release</p>
<p>54</p>	<p>DASR M.A.802</p>	<p>Who can perform? (CRS (aka Aircraft Release Certificate) for Components)</p>	<p>Requirement - A CRS for components (off-aircraft maintenance), refer to DASR M.A.802</p> <p>Who can perform? There is some conflicting</p>	<p>As per LSN 38</p>



			wording in DASR 145, refer to LSN1d below.	
55	145.A.30 (i)GM 145.A.50 (a) AUS	1d. Is there a requirement for staff issuing a CRS for components to be DASR 66 License holders for the scope of maintenance conducted?	The following two DASR references provide conflicting regulation and guidance (respectively) of the requirement for staff performing CRS for Components to be licensed IAW DASR 66.145.A.30 (i) ‘Component certifying staff shall comply with DASR 66 or national equivalent qualification.’GM 145.A.50 (a) AUS Table 1 ‘The organisation may authorise individuals to sign for tasks that they have carried out following confirmation of competence to perform the task. Additionally the organisation will have to endure the employees that issue CRS for components are appropriately qualified for the scope of work for which they are authorised. This may be on the basis of either external qualifications as mentioned within the Exposition or by the NMAA approved procedure for training, assessment and qualification by the organisation as specified in the Exposition’	As per LSN 38
56	66.A.10(f). GM 66.A.10(f) (AUS)	2a. Will the above DASR references (in particular GM) be updated to reflect the fact that DASR 66 license scopes will be based on PMKeys/PEX QT&E data assessments, including DASR 145 AMO authorisations?	The following DASR 66 references explicitly state that licenses are issued on the basis of Aeroskills qualifications/SOAs, or other qualifications as approved by the NMAA. There is no indication of licenses being issued on a balanced assessment of Qualifications, Training and Experience (QT&E). 66.A.10(f). ‘Each application shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, practical training and experience requirements at the time of application’ GM 66.A.10(f) (AUS) ‘Form 19 Guidance Material details the required documentation.	As per LSN 38.  FAQ to be amended to align with AMC

			<p>Aeroskills qualifications or Statements of Attainment provide the basis for licences, however the NMAA may consider a non-Aeroskills qualification or Statement of Attainment.’</p> <p>12. Air Force 145 AMOs currently leverage heavily on Training (type training courses at 200 series SQN/contractor schools) and Experience (under supervision experience within 145 AMO) to Authorise staff to perform maintenance</p> <ul style="list-style-type: none"><li>a. Key tenant of long running trade authorisation practices across Air Force and broader ADF</li><li>b. Enables flexible cross-trade employment on C-27 and heavy Air Lift platforms in particular – MPIP gains</li></ul> <p>13. The DASR 66/147 FAQ identify that DASA’s automatic license generation tool will extract full QT&amp;E data from PMKeys/PEX, including DASR 145 AMO authorisations (proficiencies), to generate licenses. As such, there appears to be a misalignment between the above DASR references which focus solely on Qualifications, and the DASA implementation approach which is pragmatically leveraging off full QT&amp;E assessments.</p>	
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<p>57</p>	<p>DASR 66.A.20, 66.A.25 and 66.A.30</p>	<p>3a. Noting DASR 145 authorisation processes will lead DASR 66 license issuance, is there an expectation that DASR 145 RM/QMs perform their AMO staff authorisations IAW the requirements stipulated in DASR 66 for recent and basic experience and basic knowledge?</p>	<p>DASR 66.A.20, 66.A.25 and 66.A.30 outline very specific requirements for:</p> <ul style="list-style-type: none"><li>a. recent type/like type experience (66.A.20.(b)2)</li><li>b. basic knowledge requirements including time limits on validity of examination (66.A.25)</li><li>c. Basic experience requirements (66.A.30)</li></ul> <p>Email provided had a relevant example of a discussion on DAVCOMP-DASA’s advice to AMG of the requirement for 6 months of recent experience for a SNCO Technician returning to a SQN with relevant previous type license privileges.</p>	<p>No change required.</p> <p>Previous DASA staff advice incorrect - for technicians returning to an aircraft type, the DASR145 is responsible for assessing when the individuals are ready to (re)exercise their licences</p>
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58	<p>DASR 66 licenses</p>	<p>3b. Will small trades (AST/ALS) have the ability to be licensed for Aircraft level CRS provided the AMO can demonstrate the individual has the necessary broad aircraft systems knowledge and experience to do so?</p>	<p>From initial discussion with DASA staff, it is understood that DASA were not intending to issue License privileges (as either a B or C license holder) to ASTTECH/ALSFITT workforce to enable them to perform Aircraft level CRS.</p> <p>LOGBR-AF surveyed the current Air Force SNCO workforce from these two trade groups and found that the following proportions of the trade had been authorised to perform CRS (known as Aircraft Maintenance Release) either in current or previous postings:</p> <ul style="list-style-type: none"> <li>a. 16 % ALS (1 in 6) personnel,</li> <li>b. 22% ASTECH (1 in 5) personnel.</li> </ul> <p>The utilisation of AST &amp; ALS SNCOs in this role is spread across multiple FEGs. Although experiences varied, the process to be assessed as suitable to perform this task generally included an II/MM trade board and some level of Type specific training/experience to provide broader aircraft systems awareness required to perform the task.</p> <p>LOGBR-AF are currently establishing the Small Trades Future Workforce Review MPIP project which seeks to expand on these opportunities for workforce productivity rather than limit them. LOGBR-AF discussion with COL Crowe indicated that this authorisation may be able to be accommodated through a C license, with a pathway like the academic pathway encapsulated in 66.A.25 and 66.A.30 for Engineering Officers.</p>	<p>RFI only, no change required.</p> <p>Eligible small trades personnel with Maintenance Manager authorisations will be issued with a licence (with numerous exemptions).</p> <p>Only ALSE which is part of the aircraft CBD (eg Top Owl helmet) will be part of the aircraft's release</p>
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<p>59</p>	<p>DASR 66.A.25(b)</p>	<p>3c. Does this apply if an individual has held a License over that 10 year period?</p>	<p>DASR 66.A.25(b) stipulates a 10 year validity of training and examinations, unless assessed by NMAA.</p>	<p>RFI only, no change required. Respondent has incorrectly interpreted 10 year period</p>
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