

NOTICE OF PROPOSED RULE MAKING DGTA 02-09
AAP7001.053 SECTION 2 CHAPTER 1 REGULATION 2
INFORMED RECOGNITION OF PRIOR ACCEPTANCE

INTRODUCTION

Applicability

1. This proposal is applicable to all aerospace Project Offices (POs) and System Program Offices (SPOs) seeking to apply Recognition of Prior Acceptance (RPA) to an aircraft acquisition and/or modification program.

Purpose

2. The purpose of this NPRM is to advise and seek feedback from stakeholders on the proposal to revise AAP7001.053 *Technical Airworthiness Management Manual* regulations related to RPA, and to issue guidance on the application of RPA.

Consultation

3. The aim of this NPRM is to promulgate background and details of the proposed changes. Advice on how petitions on this proposal are to be presented to the TAR is also provided.

PROPOSAL

Background

4. The ADF, as a small military, has only limited capability and capacity to oversight major design activities. The oversight efforts of other civil and military Airworthiness Authorities is therefore relied upon to the greatest extent practicable. Where the ADF is purchasing an existing design, the ADF can often leverage extensively off the design oversight provided by another Airworthiness Authority. Where the ADF is pursuing unique design work, another Airworthiness Authority may be engaged to provide some design oversight on the ADF's behalf. In either case, the efforts of the Airworthiness Authority in confirming that the design complies with the certification basis can substantially reduce the ADF's Design Acceptance burden. This is known as 'Recognition of Prior Acceptance' (RPA), because the ADF is relying partially or wholly on certifications provided by another Airworthiness Authority.

5. Unfortunately, some ADF projects have taken the concept of RPA to extremes, by assuming that RPA in isolation provides a suitable basis for Design Acceptance. This is never appropriate. First, some TAR-recognised Airworthiness Authorities may not be assessed as suitable to provide oversight of a specific ADF certification activity. Also, even where an Airworthiness Authority is assessed as suitable, there are a range of ADF-specific issues that other Airworthiness Authorities rarely take into account, for example the specifics of our role and operating environment, our potentially differing tolerance for risk retention, corporate governance requirements, and so on. Summarised, while RPA has the potential to reduce the ADF's Design Acceptance burden, its limitations must be recognised and managed.

Objective

6. This NPRM proposes an amendment to Regulation 2.2.7 in AAP7001.053 *Technical Airworthiness Management Manual*, and the inclusion of RPA guidance at Annex G to Section 3 Chapter 12. The proposed amendment establishes the TAR requirement that RPA shall be applied in a measured and informed way, with the guidance material providing advice to POs and SPOs on meeting TAR expectations for RPA in aircraft acquisition and modification projects.

7. The benefits of the proposed changes to Regulation 2.2.7 and associated guidance are as follows:

- a. it will provide POs and SPOs with greater clarity on the TAR's expectations for the reasoned application of RPA to ADF aircraft acquisition and modification projects;
- b. it will ensure that projects understand and treat the limitations of RPA in their project DAS; and
- c. it will provide a mechanism for the TAR to approve proposals for other Airworthiness Authorities to oversight design changes to ADF aircraft, an area that has historically been poorly understood and implemented by some projects.

8. The benefits of the proposed RPA guidance material are as follows:

- a. it will enable POs and SPOs to create Design Acceptance Strategies with an RPA component that are more likely to be acceptable to the TAR;
- b. it will provide insight into the criteria used by the TAR to assess whether a military or civilian Airworthiness Authority is both competent and suitable to oversee a particular ADF-unique aircraft modification;
- c. it will provide advice on the relative merits and drawbacks of engaging civilian versus military Airworthiness Authorities to oversee an ADF-unique design change, and from this provide focus for PO and SPO Design Acceptance efforts;
- d. for POs and SPOs intending to acquire an aircraft or modification via the United States Foreign Military Sales system, it will provide guidance on what information should be obtained to support Design Acceptance; and
- e. it will provide a framework for making the assessment of whether an Airworthiness Authority is suitable for addition to the list of TAR-recognised Airworthiness Authority in Regulation 2.2.7.

Proposed New AAP7001.053 RPA Regulations and Guidance

9. The proposed changes to Regulation 2.2.7 are included at Enclosure 1. The proposed RPA guidance is included at Enclosure 2.

HOW TO SUBMIT COMMENTS ON THIS NPRM

Format

10. Responses to the NPRM are to be submitted electronically using the NPRM Comments Sheet (Annex A), or as published on the DGTA Intranet and Internet websites. Responses can to be e-mailed to DGTA NPRM@defence.gov.au.

Resource Implications

11. Stakeholders are requested to include in their responses, assessment or comment on potential resource implications associated with the proposed change.

Timing

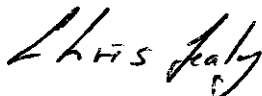
12. Comments to NPRM DGTA 02-09 are to be received by close of business 22 Feb 09.

Additional Information

13. Additional information concerning this NPRM is available from Mr Mark Wade, Deputy Director Systems Certification and Integrity (DD SCI-DGTA) on (03) 9256 3555 or mark.wade@defence.gov.au.

DISPOSITION OF COMMENTS RECEIVED

14. A Summary of Responses will be prepared and published on <http://intranet.defence.gov.au/dgta/> and <http://www.defence.gov.au/dgta/NPRM.htm>. DGTA-ADF will not individually acknowledge or respond to comments or submissions, however the names of all contributors will be acknowledged in the summary of responses.



C.A. FEALY

Captain, RAN

Director Aviation Regulation

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15 December 2009

Annex:

A. NPRM DGTA 02-09 - Comment Sheet

Enclosures:

1. Proposed Changes to Recognition of Prior Acceptance Regulations
2. Proposed Recognition of Prior Acceptance Guidance

NPRM DGTA 02-09 Comment Sheet

AAP7001.053

**PROPOSED CHANGES TO
RECOGNITION OF PRIOR ACCEPTANCE**

Please return this response sheet by 14 Dec 09, via email attachment to DGTANPRM@defence.gov.au.

Please indicate your acceptance or otherwise of the proposal by ticking the appropriate box below.

Any additional constructive comments, suggested amendments or alternative action will be welcome and may be provided on this response sheet or by separate correspondence.

- The proposal is acceptable without change.
- The proposal is acceptable but would be improved if the following changes were made: (Please provide explanatory comment).
- The proposal is not acceptable under any circumstances. (Please provide explanatory comment).
- The proposal is not acceptable but would be acceptable if the following changes were made: (Please provide explanatory comment).

Explanatory Comments

Assessment/Comment on Resource Implications

Respondent Details

Your name: _____

Organisation: _____

Address: _____

Phone Or Email _____

Do you consent to your name as a respondent to this NPRM: YES NO

Signed:

Date:

2.2.7. Recognition of Prior Acceptance

- a. The DAR shall only include Recognition of Prior Acceptance (RPA) of an aircraft Type Design as part of the Design Acceptance strategy for acquisition of an aircraft where:
- (1) an AMTC is in force for an aircraft of that type;
 - (2) a Type Certificate or Type Acceptance Certificate, issued by CASA, is in force for aircraft of that type;
 - (3) a foreign civil Type Certificate, issued by a civilian National Airworthiness Authority (NAA) of a recognised country as listed at Regulation 2.2.7.e, is in force for an aircraft of that type; or
 - (4) an aircraft of that type has been accepted into service (and remains in service) with a recognised military force as listed at Regulation 2.2.7.f.
- b. The DAR shall only include RPA of an extant aircraft system as part of the Design Acceptance strategy for a change to an ADF aircraft Type Design, where:
- (1) the design has been accepted by an Airworthiness Authority that is recognised at Regulation 2.2.7.e or Regulation 2.2.7.f;
 - (2) the aircraft system is fitted to an aircraft type that is substantially the same configuration as the ADF aircraft type, and differences in configuration between the two aircraft types are comprehensively disclosed;
 - (3) the role and operating environment for which the aircraft system was designed is comprehensively disclosed,
 - (4) the airworthiness standards, including the details of any tailoring of those standards, to which the aircraft system was designed, are disclosed;
 - (5) evidence exists that the civilian or military Airworthiness Authority applied a level of oversight to the design commensurate with the consequences of system failure; and
 - (6) any risk treatments and risk retentions, agreed to by the Airworthiness Authority are comprehensively disclosed.
- c. Where civilian or military Airworthiness Authority oversight of a design change to an ADF aircraft is proposed, the DAR must submit a proposal to the TAR for approval, confirming that the Airworthiness Authority:
- (1) is recognised at Regulation 2.2.7.e or Regulation 2.2.7.f.;
 - (2) has agreed that adequate contractual mechanisms with the design agency are in place for the Airworthiness Authority to execute its oversight functions of the design agency;
 - (3) has documented a formal agreement with the ADF that:
 - (i) confirms the same level of oversight for the ADF design change will be provided as for similar design changes to indigenous aircraft;
 - (ii) comprehensively discloses the limits of the Airworthiness Authority's proposed oversight;
 - (iii) discloses the extent to which the ADF specific role and operating environment will be accounted for in the Airworthiness Authority's oversight; and
 - (iv) confirms that the ADF will be consulted prior to the Airworthiness Authority approving designs that do not meet the contracted airworthiness standards; and
 - (4) will provide a formal Type Certification recommendation to the ADF, including operational limitations or conditions as required to achieve an acceptable level of safety.

- d. Where RPA of an extant aircraft type or aircraft system design is included in the Design Acceptance strategy for new aircraft or major design changes, the DAR shall submit to the TAR, in addition to the documentation required under Regulation 2.2.4.b:
- (1) a Type Certificate, or other certificates or documents showing acceptance into service for the extant aircraft or aircraft system, issued by:
 - (i) the NAA of a recognised country as listed at Regulation 2.2.7.e, or
 - (ii) a recognised military force as listed at Regulation 2.2.7.f.
 - (2) evidence that the prior acceptance is applicable to the configuration being acquired by the ADF and the ADF's intended roles and operating environment as defined in the SOI;
 - (3) data necessary for the compilation of a Type Record as required by Regulation 2.2.9;
 - (4) evidence of an undertaking to provide access to the Type Design data required to show compliance to the prescribed airworthiness standards;
 - (5) a Design Acceptance strategy for the new design that treats all limitations in the certifications provided by Airworthiness Authorities for the extant design, and
 - (6) for Airworthiness Authority oversight of new ADF system designs, evidence of a formal agreement encompassing each of the requirements at Regulation 2.2.7.c.
- e. Each of the following is a recognised country for the purposes of these regulations:
- (1) Australia;
 - (2) Canada;
 - (3) New Zealand;
 - (4) the French Republic;
 - (5) the Kingdom of the Netherlands;
 - (6) the United Kingdom;
 - (7) the United States of America;
 - (8) Switzerland; and
 - (9) any other country for which the TAR is satisfied that the design standards and practices, quality control standards, and certification procedures used by the NAA of the country provide an adequate level of safety, normally equivalent to that required by these regulations for comparable aircraft.
- f. Military forces of each of the following countries are recognised for the purpose of these regulations:
- (1) Canada;
 - (2) the French Republic;
 - (3) the United Kingdom;
 - (4) Spain;
 - (5) the United States of America; and
 - (6) any other military force for which an aircraft of that type has been accepted into service (and remains in service), and for which the TAR is satisfied that the design standards and practices, quality control standards, and acceptance into service procedures used by the military force provide an adequate level of safety, normally equivalent to that required by regulations for a comparable aircraft.

INFORMED RECOGNITION OF PRIOR ACCEPTANCE

INTRODUCTION

1. The ADF, as a small military, has only limited capability and capacity to oversight major design activities. The oversight efforts of other civil and military Airworthiness Authorities (collectively termed National Airworthiness Authorities (NAAs)) is therefore relied upon to the greatest extent practicable. Where the ADF is purchasing an existing design, the ADF can often leverage extensively off the design oversight provided by another NAA. Where the ADF is pursuing unique design work, another NAA may be engaged to provide some design oversight on the ADF's behalf. In either case, the efforts of the NAA in confirming that the design complies with the certification basis can substantially reduce the ADF's Design Acceptance burden. This is known as 'Recognition of Prior Acceptance (RPA)', because the ADF is relying partially or wholly on certifications provided by another NAA.

2. Unfortunately, some ADF projects have taken the concept of RPA to extremes, by assuming that RPA in isolation provides a suitable basis for Design Acceptance. This is never appropriate. First, some TAR-recognised NAAs may not be assessed as suitable to provide oversight of an ADF certification activity. Also, even where an NAA is assessed as suitable, there are a range of ADF-specific issues that NAAs rarely take into account, for example the specifics of our role and operating environment, our potentially differing tolerance for risk retention, corporate governance requirements, and so on. Summarised, while RPA has the potential to reduce the ADF's Design Acceptance burden, its limitations must be recognised and managed.

SCOPE

3. This annex provides guidance for DARs and project engineering staff in assessing how RPA might contribute to Design Acceptance for an aircraft acquisition or major modification project.

BENEFITS OF NAA INVOLVEMENT

4. One of the many functions of an NAA is to assess whether the design of an aircraft type, or modification to an extant aircraft type, is appropriately safe for flight. This is achieved by the NAA prescribing appropriate airworthiness design requirements, and then being presented with satisfactory evidence that the design complies with those airworthiness design requirements. Civilian NAAs have little scope for approving designs that fail to comply with the prescribed design requirements, unless an equivalent level of safety can be demonstrated by the designer. Military NAAs, on the other hand, may permit a shortfall against a prescribed design requirement, provided any airworthiness risk is appropriately treated. This additional flexibility available to military NAAs recognises the unique nature of military aviation, where aircraft safety must be balanced with operational capability. For brevity in this annex, the term 'NAA oversight of a design' is used to encompass the many actions of the NAA leading to their approval of a design.

5. Where an NAA has provided suitable oversight of a design, there is potential for the ADF to exercise RPA. The contribution that RPA can make to Design Acceptance depends on the scope of the ADF aircraft acquisition or modification project, for example:

- a. **Off-the-shelf aircraft.** Where the ADF is purchasing an off-the-shelf aircraft with an extant Type Certificate (or equivalent) issued by a competent NAA, extensive application of RPA is normally permitted, provided the aircraft design is compatible with the ADF's configuration, role and operating environment (CRE).
- b. **Developmental aircraft (multinational use).** Where a competent NAA is overseeing the design of an aircraft that will be used by both the host nation and the ADF, the ADF may leverage off RPA for the common elements of design, provided the design is compatible with the ADF's CRE. In this case, the ADF is effectively making use of 'future RPA', since the ADF will recognise the NAA's Type Certificate (or equivalent) once it is issued. Note that this approach applies only to common elements of the design; ADF-unique elements of the design are managed akin to modifications, per paragraph 5d below.

- c. **Off-the-shelf aircraft systems.** Where the ADF is purchasing off-the-shelf systems with a relevant certification issued by a competent NAA, RPA may be applied only to the extent that the design is shown to be compatible with the ADF aircraft's CRE. While conceptually straightforward, this application of RPA requires a thorough understanding of the NAA's oversight for that particular system. Guidance on this issue is presented later in this annex.
- d. **ADF-unique modifications.** The ADF frequently leverages off NAA oversight of ADF-unique design changes, particularly during aircraft acquisition projects where the amount of design work can be considerable. However, this arrangement is often far from straightforward. Not only must the ADF be satisfied that the NAA is suitable for overseeing the modifications, the ADF also has numerous key roles in assisting and supplementing the NAA assessments. Further, the role of the ADF can differ markedly, depending whether a civilian or military NAA is providing the oversight. Guidance on these issues is presented later in this annex. Apart from reducing the burden on ADF manpower, engaging an NAA to oversee ADF-unique design has numerous advantages, for example:
- (1) some NAAs have substantially more experience in aircraft certification programs than the ADF;
 - (2) some NAAs have access to a wider range of technology specialists than the ADF;
 - (3) the closer proximity of NAAs to overseas design organisations can facilitate closer oversight of the design effort;
 - (4) for countries where English is not the national language, NAAs can communicate more effectively with the design organisation (this is particularly important with companies whose design documentation is not routinely produced in English);
 - (5) NAAs normally have previous relationships and experience with the design organisation, which can facilitate smoother oversight of the design; and
 - (6) whereas the ADF must normally resort to contract law to enforce certification requirements, other NAAs may not be so constrained.

6. The above broad categories of aircraft acquisition and modification projects are not comprehensive, and are included for general guidance only. Where RPA is proposed as a contributor to Design Acceptance for a project, the DAR must obtain the TAR's concurrence prior to contract signature. The project's Design Acceptance Strategy (DAS) is a suitable medium for evaluating the potential scope of RPA and proposing its contribution to Design Acceptance.

7. The following section defines a process for assessing the competence and suitability of an NAA for an ADF project. The subsequent sections provide guidance to projects on the deficiencies and pitfalls of RPA, and how they might be tackled.

NAA COMPETENCE AND SUITABILITY

8. Implicit in the application of RPA, whether for existing or new designs, is that the NAA must be competent. Further, where NAA oversight of ADF-unique modifications is proposed, the NAA must also be assessed as suitable for the scope of the modifications. This section examines how the ADF assesses the competence and suitability of NAAs for aircraft acquisition and modification projects.

NAA Competence

9. A 'competent' NAA is one whose knowledge, practices and standards are assessed as providing a level of safety comparable to the ADF's own technical airworthiness management framework. A list of military and civil NAAs recognised as competent by the TAR is included at TMM Regulation 2.2.7. The omission of an NAA from Regulation 2.2.7 does not imply that the NAA is incompetent; often the need to engage with that NAA has not yet arisen, so an assessment of their competence has not yet been made. NAAs may be added to Regulation 2.2.7 either by:

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- a. the TAR conducting an assessment that confirms the NAA's knowledge, practices and standards provides a level of safety equal to or better to the ADF's own technical airworthiness management framework; or
- b. under exceptional circumstances, the TAR accepting an indirect assessment of an NAA's competence (for example, their widespread acceptance by other respected NAAs).

Appendix 1 provides a framework for conducting assessments of NAAs proposed for inclusion in Regulation 2.2.7.

10. The TAR does not periodically reassess the NAAs in Regulation 2.2.7 to confirm that each still merits recognition. Rather, the TAR accepts that it takes enormous commitment and resources for an NAA to attain competence, and once competence is obtained it will not be relinquished lightly. Further, every NAA is accountable to a variety of stakeholders; for civilian NAAs it includes the travelling public, government and other civilian NAAs, while for military NAAs it includes the government and taxpayers. This level of scrutiny should exceed what the TAR could realistically expect to achieve with periodic assessments.

11. However, recognition via Regulation 2.2.7 does not imply that the NAA will consistently apply the same level of oversight to every certification activity. Rather, it means that the NAA's 'normal' certification processes and oversight are acknowledged as adequately robust by the TAR. For some certification activities, the NAA may elect to provide oversight in excess of their norm, which is appreciated by the ADF. Conversely, an NAA may elect to apply a reduced level of oversight for a particular design, and this may be incompatible with the ADF's duty-of-care obligations or appetite for risk. Examples might include a civilian NAA certifying a stores carriage and jettison modification (despite it apparently being outside their local competencies), or a military NAA recognising an OEM's self-certification of a missile guidance system under a performance-based contract. Ultimately, for the TAR to recognise RPA for an extant design, he must be satisfied that the NAA's normal certification oversight and processes were applied. Where shortfalls in oversight are evident, proposed measures to remedy the shortfalls must be submitted to the TAR for approval.

12. The previous paragraph should not be interpreted as meaning that the ADF should critically and comprehensively review extant certifications issued by an NAA. If a competent airworthiness authority certifies the airworthiness of an aircraft being acquired by the ADF, the ADF will not explore the details of their certification (for example, their requirements, verification methods and compliance findings) as part of the ADF type certification program. Similarly, where the ADF intends to modify an existing aircraft by introducing a system/component that has been certified by an NAA, the ADF will accept the NAA certification at face value, albeit the ADF will normally seek formal confirmation that the NAA applied its 'normal' certification processes. However, there is an important proviso. If, during the course of an acquisition or modification program, the ADF learns of some breakdown or deficiency in the application of the NAA's robust processes, **the ADF cannot ignore it**. Rather, the ADF must understand the implications for the ADF type certification program, taking care however only to delve as far as is necessary to resolve the shortfall.

NAA Suitability

13. Where the ADF proposes to leverage off NAA oversight of an ADF-unique design change, the TAR must be confident that the competent NAA is also suitable for the role. After all, the NAA may see this task as extraneous to their primary role of supporting aircraft of their county, or may not have the specific skills needed for a specialised certification task.

14. The ADF may accept an NAA as suitable to provide oversight of an ADF-unique design change provided:
- a. the NAA is experienced in the subject certification issue;
 - b. evidence exists that the NAA is fully committed to the task, and will support the certification effort throughout the duration of the project;
 - c. there is an effective mechanism for the NAA to enforce their requirements on the contractor;
 - d. the NAA is fully aware of all ADF specification requirements for the design change;

- e. the NAA has a clear understanding of the ADF's proposed configuration, role and operating environment (CRE); and
- f. the ADF is fully aware of what the NAA is, and is not, attesting to.

Appendix 2 contains a checklist of items that may contribute to the ADF's assurance of these six issues. In all cases, this assessment must be completed and agreed by the TAR prior to contract or Letter of Offer and Acceptance (LOA) signature.

15. Once the TAR has agreed an NAA is competent and suitable for a particular program, there is potential for the ADF's Design Acceptance to leverage off RPA. The following three sections examine the extent to which RPA leverage might be possible for three common applications of RPA, namely:

- a. new aircraft acquisitions,
- b. system acquisitions, and
- c. aircraft modifications.

RELIANCE ON RPA (NEW AIRCRAFT ACQUISITIONS)

16. Purchasing extant aircraft designs with some in-service history can substantially reduce the ADF's cost, schedule and technical risk. The application of RPA to off-the-shelf aircraft is relatively straightforward. A core premise is that the ADF, in making the decision to purchase a particular off-the-shelf aircraft, is fully accepting that an NAA has provided suitable oversight of the design (since to do otherwise would force the ADF to conduct an ab-initio type certification program, which is well beyond our resources). When purchasing an off-the-shelf aircraft, the ADF must ensure that:

- a. the design has been issued with a relevant certification by the NAA;
- b. the NAA fully discloses to the ADF what the certification does, and does not, cover;
- c. the NAA fully discloses the certification basis for the aircraft, as well as the configuration, roles and operating environment for which the certification has been issued; and
- d. the ADF has comprehensive insight into any risk treatments (eg retention of risk, operational workarounds, and so on) permitted by the NAA to address design shortfalls.

Provided these four points are successfully achieved, the ADF will normally accept that the aircraft is adequately safe, but only for the role and operating environment assumed by the NAA during the certification program. The ADF's Design Acceptance efforts must then focus on assessing the aircraft's compatibility with the proposed ADF CRE. Where airworthiness shortfalls are identified, the ADF will either modify the aircraft or operationally treat the risk.

17. **Foreign Military Sales.** The elements listed in paragraph 15 are equally relevant for aircraft acquired via the USA's Foreign Military Sales (FMS) program. However, with FMS programs it is vitally important to include these requirements in the draft Letter of Offer and Acceptance (LOA), otherwise the information can be notoriously difficult to source. Importantly, Project Offices (POs) must rigorously pursue the disclosure of risk treatments identified at paragraph 15d, since this information will not automatically be provided to the ADF. Additional guidance on this issue is included at Appendix 3. The PO must also gain clarity on the US military's approved CRE for the aircraft; this information is vital to ADF efforts to fully treat risks due to deltas with our own proposed role and operating environment. Without this information, the ADF may be forced to adopt onerous limitations or retain unquantified risks.

18. **Developmental aircraft.** The ADF normally favours the acquisition of off-the-shelf aircraft, which are then modified to meet the ADF's specific operational requirements. From time to time, however, the ADF may join in the development of a new aircraft design (that is, a design that has not yet been issued with a Type Certificate (or equivalent) by a NAA) so that ADF-unique requirements are included in the baseline aircraft design. The Armed Reconnaissance Helicopter (ARH) and Joint Strike Fighter (JSF) are two examples. For these aircraft, the RPA

processes described in para 14 are of limited relevance. Rather, the contribution that RPA makes to Design Acceptance is more akin to aircraft modifications, as described in a later section of this annex.

RELIANCE ON RPA (SYSTEM ACQUISITIONS)

19. The previous section examined the extent to which RPA could contribute to Design Acceptance for off-the-shelf aircraft. This section examines the extent to which RPA may potentially contribute to Design Acceptance for off-the-shelf equipment and systems that are purchased for integration onto ADF aircraft. Since there are marked differences between the approaches adopted by civilian and military NAAs when oversighting the design of equipment and systems, both are considered separately below.

Commercial-the-shelf aircraft systems

20. The ADF frequently purchases civilian aircraft systems for use on ADF aircraft, for example flight data recorders, some radios, some GPS systems, and so on. Generally the design oversight provided by a civilian NAA for these systems can make a moderate contribution to Design Acceptance. This section examines the likely application of RPA for common categories of civilian NAA oversight.

21. **Technical Standard Order (TSO).** Civilian NAAs may issue a TSO (or equivalent) certification for an item, which certifies that a material, part or appliance meets applicable minimum design and performance standards. It is, however, independent of aircraft type, and therefore is not an approval to install and use the item in any aircraft. The contribution of a TSO to Design Acceptance via RPA is therefore limited. While the TSO certification does confirm that an item meets the applicable performance and design standards (and therefore the ADF does not need to review OEM evidence to obtain this confirmation), the ADF must still establish whether the design standards are compatible with the target ADF aircraft CRE.

22. **Supplemental Type Certificate (STC).** Civilian NAAs apply STCs in a similar manner to the ADF, namely to certify that a major design change is compatible with a certain aircraft type. Existing civilian STCs are normally of little relevance to the ADF, except where the ADF is installing equipment covered by an STC onto an ADF aircraft with a relevant civilian type certificate. Even then, the ADF must confirm that post-production modifications to the aircraft are compatible with the STC.

23. **Equipment installed on civilian aircraft via a minor design change.** The ADF may occasionally be offered equipment for integration onto ADF aircraft that has also been integrated onto civilian aircraft as a minor modification. In this case, RPA will not make any contribution to Design Acceptance.

Military Off-the-shelf systems

24. From time to time, the ADF purchases modification kits and/or systems that have received a certification from a recognised military NAA (including via FMS). Unlike certifications provided by civilian NAAs, the basis for a military certification can vary widely depending on the particular needs of the military. RPA may contribute to Design Acceptance of the modified ADF aircraft under the following circumstances:

- a. There must be explicit confirmation that the military NAA provided formal Airworthiness Authority oversight of the design, and not used alternative mechanisms such as reliance on design agency self-governance under contractual mechanisms (in which case the military has not acted rigorously in the role of an NAA, so the use of RPA to support Design Acceptance is precluded);
- b. Full disclosure of the system design standards (including details of all tailoring of those standards) must be obtained, so that an assessment of compatibility with the ADF aircraft CRE can be completed;
- c. Access to key NAA assessment documentation (for example, in the case of US guided weapons, access to the minutes of the Non-Nuclear Munitions Safety Board) should be sought;
- d. Where the system is already in use with the foreign military, comprehensive disclosure of the military's own operational limitations, mitigations or risk retentions that were required address design shortfalls (see Appendix 3 for further guidance on this issue).

25. The requirement at paragraph 23a regarding confirmation that the military is fully discharging its NAA duties, may initially appear superfluous. After all, it seems a reasonable expectation that a military with a rigorous airworthiness management framework would automatically apply this framework for new designs. However, this is not always the case. Some militaries do, on occasion, allow selected design agencies to self-assess their designs without any NAA oversight. In this case, the military's resulting 'certification' is simply an attestation of contractual compliance rather than safety. Some ADF projects have argued that the foreign military is still adequately confident in the safety of the design, so the ADF should share this confidence. This argument is not accepted by the TAR. A fundamental premise of RPA is that an NAA has provided a similar level of oversight to the design as would the ADF if resources were available. Any arrangement that precludes NAA oversight for a design means the foreign military is retaining an unknown, potentially high, level of airworthiness risk. While the foreign military may consider this to be an acceptable compromise when faced with onerous program challenges (eg severe resource constraints, operational requirements for rapid acquisition, and so on), the ADF cannot automatically claim the same imperative. For the TAR to accept RPA as contributing to Design Acceptance, evidence must be produced that confirms the military explicitly acted in the capacity of an Airworthiness Authority.

RELIANCE ON RPA (ADF AIRCRAFT MODIFICATIONS)

26. The ADF routinely requires unique changes to the design of its aircraft. To reduce the burden on ADF resources, the ADF has a strong preference to engage other NAAs to oversight the design effort on the ADF's behalf, particularly during aircraft acquisition projects where the amount of design work can be considerable. While it may initially appear counter-intuitive to manage this NAA involvement as RPA (noting the emphasis in RPA is on prior acceptance), the management issues are similar to RPA and therefore separate terminology is not warranted. An alternative viewpoint is that the NAA, at the completion of the modification program, will issue a Supplemental Type Certificate (or equivalent), and the ADF will rely on this certification to contribute to Design Acceptance. Thus, where an NAA is oversighting design effort on the ADF's behalf, the ADF is effectively acknowledging the future state where RPA can be exercised.

27. The ADF makes extensive use of both civilian and military NAAs to oversight design changes to ADF aircraft. While military NAAs often offer more flexibility and coverage, civilian NAAs often have extensive experience with complex modification programs and provide a well-established level of oversight. Ultimately, the ADF does not have a preference for either civilian or military NAA oversight of ADF modifications; both have their disadvantages, and these must be managed by the ADF. The following two sections provide guidance on key issues that must be managed with civilian and military NAA oversight of ADF modifications.

Civilian NAA oversight of ADF modifications

28. Unlike military NAAs, civilian NAAs adopt a highly standardised approach to approving aircraft modifications. First, the design will only be assessed against NAA-approved design standards, normally derived from the aircraft's original certification basis; the NAA may even refuse to provide any oversight (except on a 'non-interference' basis) for military systems that are incapable of meeting civilian design standards. Secondly, the NAA will assume a 'normal' civilian role and operating environment for the aircraft type. Thirdly, the NAA focus is squarely on maintaining the level of safety of the aircraft, so they will not permit safety to be sacrificed for the sake of operational effectiveness. Finally, while the ADF considers some mission systems to be safety-related in hostile operating environments, the civilian NAA will not share this view nor provide commensurate oversight. Summarised, a civilian NAA will simply ensure that civilian-like modifications to the aircraft are safe to fly in a civilian-like role and operating environment.

29. While the involvement of a competent and suitable civilian NAA can reduce the Design Acceptance burden on the ADF, there is still a clear (and often sizeable) role for the ADF. At a minimum, the ADF must:

- a. fully understand the extent of the CRE considered by the NAA, and make a comprehensive assessment of any deltas across every element of the certification basis;
- b. provide full design oversight for systems that the NAA refuses to oversight because they do not meet civilian design standards;
- c. provide full design oversight for mission systems that have limited or no oversight by the NAA;

- d. ensure the aircraft is 'compatible' with ADF policies, procedures and equipment;
- e. confirm that the aircraft meets the contracted Functional and Performance Specification (FPS) requirements, and is therefore fit-for-service;
- f. obtain sufficient recommendations and information from the NAA to enable the ADF to make compliance findings against the certification basis; and
- g. provide 'corporate governance' oversight of the NAA's efforts, to the maximum extent that the ADF can afford and the NAA will permit (although civilian NAAs are normally reluctant to permit ADF involvement).

Military NAA oversight of ADF modifications

30. The previous paragraph stated that civilian NAAs adopt a highly standardised approach to approving aircraft modifications, and this lack of flexibility can place an additional burden on the ADF. Military NAAs, on the other hand, have considerable latitude in approving aircraft modifications, including the willingness to trade safety for the sake of improved operational effectiveness. For these reasons, military NAAs are generally much more flexible in tailoring their oversight to achieve ADF requirements, for example assessing the design against the ADF's contracted standards, including mission systems within the scope of their oversight, and so on. However, these advantages are not without a downside: any 'certification' issued by a military NAA is virtually meaningless unless the ADF has comprehensive insight into the context adopted, and decisions made, by the NAA throughout the certification process. To ensure a military NAA's oversight can make a substantial contribution to Design Acceptance, the ADF should negotiate and agree on key aspects of this process. Common issues to be clarified include the following:

- a. Obtain confirmation that the military NAA will provide formal Airworthiness Authority oversight of the design, and not use alternative mechanisms such as reliance on design agency self-governance under contractual mechanisms.
- b. Gain assurance that the extent of military NAA oversight over the ADF design will be similar to what the ADF would provide for an equivalent modification.
- c. Ensure the NAA's certification basis (or equivalent) for the modification is fully disclosed to the ADF, and that the TAA concurs that it is compatible with the ADF aircraft.
- d. Where the NAA will not comprehensively assess the compatibility of the design with the ADF's proposed CRE (including our policies, procedures and equipment), arrange for ADF access to key design documentation. Depending on the project nature, this might alternatively be achieved directly with the design agency.
- e. Ensure mechanisms are in place for the ADF to obtain recommendations and information from the NAA to assist the ADF in making compliance findings against the certification basis.
- f. Ensure the ADF obtains comprehensive insight into risk treatments agreed by the military NAA to account for design shortfalls in the ADF modification.
- g. Establish a mechanism whereby the ADF has 'right of veto' over risk retention decisions that reduce the level of safety of the ADF aircraft.
- h. For modifications based on an existing local military design, arrange for the NAA to comprehensively disclose the local military's own operational limitations, mitigations or risk retentions that were required to address design shortfalls (see Appendix 3 for further guidance for US military acquisitions).

- i. Ensure the NAA will comprehensively confirm that the aircraft meets the ADF's contracted Functional and Performance Specification (FPS) requirements, and is therefore fit-for-service (or make provision for the ADF to conduct this activity).
- j. Confirm that the production and incorporation of the modification onto the ADF aircraft will be achieved to a satisfactory standard. While regulations and associated guidance are yet to be included in the TAMM, some considerations include:
 - (1) confirm that the military NAA will provide the same level of oversight of the incorporation process as they do for their own aircraft;
 - (2) confirm that the approval authority for waivers /deviations is appropriate, and that the ADF will be provided with full visibility;
 - (3) confirm that the modification incorporation venue will have all necessary and applicable data for the ADF tail number (eg data on previous repairs, configuration differences to US military aircraft, etc); and
 - (4) confirm with the TAA that the venue is authorised to conduct any required maintenance during the course of the modification process (eg periodic maintenance, repairs, etc).
- k. Negotiate mechanisms by which the ADF can involve itself in the NAA oversight program, to the maximum extent that the ADF can afford and the NAA will permit. Not only will this provide a means for the ADF to assist the NAA in understanding the proposed CRE, it will also provide the ADF with ongoing confidence that the NAA is fulfilling the agreed oversight role.

Ultimately, Design Acceptance is an ADF responsibility, so the ADF must establish compliance against the certification basis. Each of the considerations highlighted above, if satisfactorily achieved, has the potential to reduce the ADF's compliance finding burden. Where any of these considerations is not satisfactorily achieved, the ADF must find a way to overcome the shortfall.

31. FMS modifications. The issues highlighted in the previous paragraph are fully applicable to modifications to ADF aircraft accomplished via FMS. However, there appears to be a widespread misconception in the ADF that an FMS arrangement 'inherently' accomplishes each of these issues. This is incorrect. Without relevant agreements in place, an FMS arrangement can simply result in the delivery to the ADF of a modified aircraft and additional maintenance instructions. Information on risk retention, risk treatment measures, compatibility with the ADF's CRE, and so on, may be absent. It is therefore important that the ADF confirm, and then formalise via the LOA (or alternative mechanism), that each of the issues in the previous paragraph will be satisfactorily addressed by the US government. Once the modification project commences, the ADF must confirm that the US government does in fact provide the information and oversight agreed in the LOA.

Appendices:

- 1. Assessment Of NAA Competence
- 2. Assesment Of NAA Suitability For Oversighting ADF Design Changes
- 3. Guidance For FMS Programs

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ASSESSMENT OF NAA COMPETENCE

1. A 'competent' NAA is one whose knowledge, practices and standards are assessed as providing a comparable level of safety to the ADF's own technical airworthiness management framework. A list of military and civil NAAs currently assessed as competent by the TAR is included at TAMM Regulation 2.2.7. Omission from the Regulation 2.2.7 list of recognised NAAs does not imply that an NAA is incompetent; often the need to engage with that NAA has not yet arisen, so an assessment of their competence has not yet been made. NAAs may be added to the Regulation 2.2.7 list either by:

- a. the TAR conducting an assessment that confirms the NAA's knowledge, practices and standards should provide a comparable level of safety to the ADF's own airworthiness management framework; or
- b. under exceptional circumstances, the TAR accepting an indirect assessment of an NAA's competence (for example, their widespread acceptance by other respected NAAs).

This appendix provides guidance for assessments of an NAA for potential inclusion into Regulation 2.2.7. This assessment will always be conducted by the TAR's staff. A positive outcome from the assessment must be confirmed by the TAR prior to a project entering into any agreements with prime contractors (eg via project contract signature) regarding certification processes.

2. The assessment framework for NAAs broadly follows the OPPDP assessment framework used for Authorised Engineering Organisations. Key elements are as follows:

- a. **Organisation.** The organisation should clearly understand its roles and responsibilities as an NAA, and be recognised as competent by one or more ADF-recognised NAAs. Responsibilities and authorisations of key personnel should broadly accord with that adopted by other recognised NAAs. The organisation should preferably possess a relevant quality management system certification.
- b. **Personnel.** As a minimum the NAA should have similar coverage of aerospace technology disciplines as encompassed by DGTA and the aviation CoEs (as listed in the TAMM). The qualifications, training, experience and authorisations of key personnel should be assessed as comparable to other recognised NAAs. Particularly complex and important disciplines, for example structures, propulsion, software, performance and handling, E³ and System Safety, should be comprehensively covered.
- c. **Processes.** The regulatory basis for certification activity should be investigated. The system for prescribing and revising minimum standards governing the design of aircraft, engines and propellers should be reviewed. Additionally the program to determine compliance with those prescribed standards should be evaluated. The airworthiness code, guidance material, and type certification processes should be assessed against those used by recognised NAAs.
- d. **Data.** The NAA should be able to produce key evidence of previous certification activities, for example agreed certification plans, certification bases, records of key certification minutes, records of resolution for key airworthiness issues (eg Issue Papers or equivalent), and so on.
- e. **Product.** The NAA should have completed numerous previous certification programs for complex modifications with wide ranging airworthiness implications. The NAA should preferably have completed an ab-initio Type Certification program for a new aircraft design. Evidence should be produced that verifies safe operating histories following these certifications.

The following table provides a checklist of items that may contribute to the TAR's confidence in the competence of the NAA. While affirmative responses are not expected for all items, an overall impression of acceptable performance is required. The benchmark for 'acceptability' is broadly defined as the knowledge, practices and standards generally evident in TAR-recognised NAAs and (where relevant) the ADF.

EVALUATION CHECKLIST FOR<NAA NAME>

The following tables provide a checklist of items that may contribute to the TAR's confidence in the competence of the NAA. While affirmative responses are not expected for all items, an overall impression of acceptable performance is required. The benchmark for 'acceptability' is broadly defined as the knowledge, practices and standards generally evident in TAR-recognised NAAs and (where relevant) the ADF.

ORGANISATION

For civilian NAAs: Establish whether the NAA recognised as competent by CASA (see CASR(1998) 21.012), the FAA and/or EASA.

For military NAAs: Establish whether the NAA is recognised as competent by a TAMM-recognised NAA

For civilian NAAs: establish when the NAA was last audited by ICAO, and assess the outcomes of the audit (See ICAO Flight Safety Information Exchange website: http://www.icao.int/fsix/auditRep1_csa.cfm)

Establish whether the NAA has QMS certification to ISO 9001 or equivalent

Examine the organisational structure and assess whether it broadly compares with other recognised NAAs

Examine the level of NAA independence from contractors, major customers, etc

Confirm that key staff comprehensively understand their own Airworthiness Management System

Establish who the NAA Senior Executive reports to

Establish which NAAs are recognised as competent by the subject NAA

PERSONNEL

Examine closely what specialist airworthiness disciplines are covered by the NAA, and the depth of coverage in each area. Key technology areas should include, as a minimum, Performance & Handling, structural integrity, propulsion, system safety and safety critical software.

Establish how NAA overcomes shortfalls in airworthiness specialists for particular key disciplines.

Assess the depth and breadth of technical resources NAA has available to draw on, for example, test centres, engine test facilities, structures test facilities, E3 facilities, etc.

Establish how staff are authorised to make compliance findings, and the level of ongoing oversight.

Establish the extent to which the NAA makes use of peer review for complex issues.

Assess the qualifications, training and experience of key technical and management staff.

Assess the range of certification program management skills available to the NAA

For military NAAs: Where complex civilian airworthiness issues are involved (eg certifications for ETOPS, RNP, RVSM, etc), critically assess whether the NAA has the knowledge to oversight these issues.

PROCESSES

Type Certification Management

Establish exactly what is covered by the final Type Certificate (or equivalent) issued by the NAA.

Assess how type certification projects are coordinated within the NAA

Obtain copies of the NAA certification processes, and (if allowed) a copy of a previous type certification program. If copies not allowed (eg due to non-disclosure agreements with design agencies), step in detail through an

example process

Assess the level of review that the NAA applies to certifications provided by other NAAs

If major OEMs are authorised to approve designs on behalf of the NAA, examine the NAA processes for controlling and monitoring this.

Comprehensively understand how the NAA permits the concept of grandfathering to be employed in new designs

Assess the NAA processes for approving design organisations, and ongoing compliance assurance.

Determine whether the NAA has a role in providing through-life airworthiness services (eg issuing ADs etc) to non-national customers

Confirm the NAA has an effective mechanism for managing outstanding airworthiness issues (eg Issue Papers)

Confirm whether the NAA will certify the 'operation' of military systems, or whether oversight is limited to confirming that modifications do not affect aircraft safety

Assess the processes and standards adopted for the issue of Certificates of Airworthiness

Confirm whether the NAA monitors the continued airworthiness of the type certificated product worldwide and issues Airworthiness Directives (AD) when necessary

Examine how the NAA notifies other NAAs of pending emergency actions or significant investigations (ie impending issue of ADs or equivalent)

Understand any areas in which the NAA believes the ADF has a role/responsibility in the certification process

Design Standards

Examine how the NAA prescribes and revises minimum standards governing the design of aircraft, engines, propellers and other aircraft related equipment?

Broadly assess the NAA's airworthiness design requirements, and assess whether they provide a comparable level of safety to the standards accepted by other NAAs

Confirm how the NAA will establish a certification basis for a military modification

Examine the NAA process for assessing and approving any tailoring of military standards (and whether the ADF has a role in this process)

Oversight of Design

Where employed by the NAA, examine how delegation and designee systems work, including how decisions are reviewed and authorisations issued

Broadly assess the level of certification evidence required by the NAA for key airworthiness requirements, and the plans used to support the process (eg compliance finding plans)

Confirm the NAA's normal approach to oversight/witnessing of OEM test activities

Examine how the NAA involves itself in safety-related software development activities

Assess NAA intended oversight and approval of the flight manual

Assess whether the NAA approves the Airworthiness Limitations section of the Instructions for Continuing Airworthiness

Assess the NAA's requirements for system safety programs, in particular the identification and management of hazards

Production/Construction

Understand the NAA's regulatory framework for the production of aircraft and modifications

Comprehensively examine how production oversight is performed

Establish how the NAA assesses the competencies of key OEM construction staff

Establish how deviations, waivers, product concessions, and so on, are approved during the production of aircraft and modifications

Establish how major repair data is approved

Examine how the NAA assesses the competencies of key OEM construction staff

DATA

Review example Certification Project Plans (or equivalent) to understand how the NAA coordinates schedules, responsibilities and personnel resources within the certification body and its support network

The following data should be reviewed as part of an on-site visit:

- Safety Risk Retention Decisions and the recording of hazards and risk retention
- Special conditions, exemptions, and equivalent level of safety Certification Review Items (Issue Papers)
- Compliance Finding Plans
- Findings of Compliance
- Statements of Conformity
- Certification Plans
- Flight Manual Approval Page

Assess how the NAA accepts data provided by other NAAs

PRODUCT

Establish whether the NAA has experience in conducting type certification programs for new aircraft designs

Confirm the NAA has extensive experience in conducting type certification activity for complex modifications.

Assess the safety record of all aircraft types previously type certified by the NAA

Examine previous Type Certificates and Data Sheets that have previously been issued by the NAA

Examine previous Mandatory Continued Airworthiness Information (MCAI) such as Airworthiness Directives that has previously been issued by the NAA

Examine a Master Minimum Equipment List (or equivalent) previously approved by the NAA

ASSESSMENT OF NAA SUITABILITY FOR OVERSIGHTING ADF DESIGN CHANGES

1. Where the ADF proposes to leverage off NAA oversight of an ADF-unique design change, the TAR must be confident that the competent NAA is also suitable for the role. After all, the NAA may see this task as extraneous to their primary role of supporting aircraft of their county, or may not have the specific skills needed for a specialised certification task. The TAR will normally accept an NAA as suitable for overseeing a specific ADF modification provided:

- a. the NAA is experienced in the subject certification issue;
- b. evidence exists that the NAA is fully committed to the task, and will support the certification effort throughout the duration of the project;
- c. there is an effective mechanism for the NAA to enforce their requirements on the contractor;
- d. the NAA is fully aware of all ADF specification requirements for the design change;
- e. (for military NAAs:) the NAA has a clear understanding of the ADF's proposed configuration, role and operating environment (CRE); and
- f. the ADF is fully aware of what the NAA is/isn't attesting to.

The following table contains a checklist of items that may contribute to the TAR's assurance of the above six issues. In all cases, this assessment must be completed and agreed by the TAR prior to contract signature.

EVALUATION CHECKLIST OF SUITABILITY OF <NAA NAME> TO OVERSIGHT MODIFICATION <MODIFICATION NAME>
--

RELEVANT EXPERTISE

Determine if the NAA has previous experience in similar certification programs
--

Confirm the NAA possesses current specialist technical skills relevant to the core challenges of the certification program
--

CAPACITY

Obtain an estimate of the NAA resources expected to be assigned to the program
--

Obtain assurance that the NAA has sufficient capacity to accomplish the activity
--

Confirm the adequacy of the NAA organisational structure to be applied to the ADF's certification program

Confirm the adequacy of staff numbers and competence to be applied to the ADF program

Assess what the impact on the ADF program will be if a higher priority local task emerges

WILLINGNESS

Establish the NAA's motivation for undertaking this program, to gain insight into their willingness to diligently prosecute the certification activity on behalf of the ADF.
--

Obtain confirmation that the program has a senior executive and (if applicable) government backing.

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Establish the NAA's willingness to have ADF personnel involved in the certification effort

Establish, through MOU or other means, a formal agreement for the certification work to be undertaken by the NAA on the ADF's behalf.

FMS ACQUISITIONS

1. While FMS acquisitions may intuitively appear to be the same as any acquisition overseen by a military NAA, there are key differences that require careful management by the ADF. In particular, FMS acquisitions can provide the ADF with minimal oversight into the actions of the US military as an NAA, which can complicate the ADF's Design Acceptance effort. This appendix identifies a range of information that can be obtained from the US military, provided it is included in key formal agreement documents, for example the Letter of Offer and Acceptance (LOA) with the US Government and individual Memorandums of Understanding/Agreement (MoU/MoA) with key military organisations. Obtaining this information outside a formal agreement can be very difficult.

Items for inclusion in the LOA

2. **Disclosure of the certification basis.** As an informed customer the TAR expects full disclosure of the design standards to which the aircraft or modification is designed (ie the certification basis). Comprehensive disclosure of the certification basis is fundamental to the ADF assessing the impact of any ADF CRE differences. Due to US Government International Traffic in Arms Regulations (ITAR), obtaining the required level of disclosure of certification information can often be problematic, particularly when seeking release of classified certification information such as E³ test reports, which may reveal equipment shortfalls and susceptibilities. Consequently, it is imperative that provisions for release of classified certification information are included in the LOA and that US State Department approval for the release of this information is sought early in the acquisition process.

3. **Designed level of safety.** Understanding the inherent level of safety for the aircraft is essential for the ADF to make informed risk treatment and risk retention decisions. Typically this is presented as the as-designed aircraft accident, or non-combat loss rate, and identifies the baseline level of accident/incident risk for the platform.

4. **Hazard management.** The system safety program will identify to the NAA hazards that are above and below the baseline level of accident/incident risk. These hazards must be evaluated in the ADF context. While the terminology and information repository varies between the US Services, the following data should be sought:

- a. **Executive Level Risk Acceptance.** All hazards associated with the aircraft that were accepted by US executives with a Residual Risk Level of either *High* or *Medium* in accordance with the System Safety Management Plan must be identified. Levels of risk acceptable to the US armed forces may be different to that which is acceptable to the ADF and must therefore be considered and formally acknowledged at an appropriate level within the ADF. Comprehensive data to support this process must be sought via the LOA.
- b. **US Military risk treatment.** The US military, like the ADF, adopts procedural mitigations (for example, local operating instructions that are not documented in the flight manual) to treat certain risks. These are effectively the US equivalent to ADF Special Flying Instructions, Maintenance Standing Instructions, and so on. Full disclosure of these procedural mitigations must be pursued via the LOA.
- c. **Airworthiness Release (AWR) Restrictions.** Airworthiness Releases communicate restrictions and operating instructions, warnings, cautions and notes as well as other important information. The PO must assess whether the restrictions and limitations are contained within the operator's manuals, and if not ensure they have been conveyed to aircrew appropriately. A copy of all AWRs must be sought via the LOA.
- d. **Special Technical Instructions (STI) issued by the NAA.** US Military mandatory instructions for continuing airworthiness (ICA), performing a role similar to ADF STIs, must be sought via the LOA. Examples include:
 - (1) US Army Aviation Safety Messages comprising Safety of Flight Messages, Aviation Safety Action Messages, Aviation Maintenance Action Messages; and
 - (2) USAF issues Safety Time Compliance Technical Orders.
 - (3) Safety related OEM advice such as urgent/mandatory Service Bulletins.

- e. **Product Assurance – Product Quality Deficiencies.** The ADF must source all relevant US military Category One Deficiency Reports, since these include deficiencies that:
 - (1) May cause death, injury, or severe occupational illness,
 - (2) Would cause loss or major damage to a weapon system, and
 - (3) Would restrict the combat readiness of the using organization.
- f. **Qualification Waivers.** The ADF must source all qualification waivers, so that an assessment of the associated safety impacts in the ADF context can be made.
- g. **Mishaps - Lessons Learned.** The ADF should source insight into all relevant significant safety events, including the cause of the event and actions recommended to prevent re-occurrence.

5. **Programmatic Environment, Safety, and Occupational Health Evaluation.** To assist in meeting Occupational Health, Safety and Environmental requirements system safety products such as health hazard assessments and Programmatic Environment, Operating and Support Hazard Analysis (PEO&SHA), and Occupational Health and Safety Evaluation (OH&SE) reports should be sought.