Defence Aviation
Safety Authority

ADVISORY CIRCULAR

AC 002/2020 v1.0

Aircrew Training

An Advisory Circular is issued by the Authority to promulgate important information to the Defence Aviation community, but does not mandate any action. This includes informing the community on aviation safety / airworthiness matters, information that enhances compliance understanding for existing regulation, or policy guidance for aviation issues not yet regulated that require further understanding.

Audience

This Advisory Circular (AC) is relevant to:

− Military Air Operator – Accountable Managers

− Aircrew training and simulation staff

Purpose

The purpose of this AC is to provide a consolidated interpretation of Flight Simulation Training Device (FSTD) and aircrew training related DASR.

Further information

For further information on this AC, contact:

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Status

This AC will remain current until cancelled by DASA.

Version	Date Approved	Approved By	Details
1.0	Mar 2020	GPCAPT D Smith	Initial release

Contents

1 Reference material

1.1 Acronyms

1.1.1 The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
CRE	Configuration, Role and Environment
FSTD	Flight Simulation Training Device
LMP	Learning Management Plan
MAO	Military Air Operator
MAO-AM	Military Air Operator – Accountable Manager
SFARP	So Far As is Reasonably Practicable

Unless specified otherwise, all regulation references in this AC refer to the Defence Aviation Safety Regulation (DASR).

2   Background

2.1.1   Command is responsible for ensuring the suitability of the aircrew training system and ultimately the safety of their aircrew. Regulation provides ADF policy on addressing hazards, but Commanders must continue to manage hazards and risks in order to eliminate them or otherwise minimise them SFARP.

2.2   Aircrew Training

2.2.1   Aircrew Competency is a critical risk control for the inherent hazards of flight and requires a credible and defensible training system. The training system should ensure Aircrew Competency to address all reasonable hazards and risks across a platform's CRE.

2.2.2   FSTD can enable the development of advanced competencies that are too hazardous to perform in the actual platform; however, the limitations of the FSTD need to be assessed and managed. Utilising a formal, structured Qualification process is essential for ensuring that an FSTD is fit for its intended purpose so that Negative Training is eliminated or otherwise minimised SFARP.

3 Aircrew Training Regulatory Interpretation

3.1 Required Outcome

3.1.1 Pending the review of DASR.FSTD.05 and elements of DASR.AIRCREW.10, MAOs should utilise the guidance in this AC to assist in ensuring that the aircrew training system eliminates or otherwise minimises deficiencies within the training system SFARP.

3.2 Aircrew Training Requirements

3.2.1 Commanders should ensure that the aircrew training system:

a.   Is of sufficient scope to ensure that trained aircrew are competent to safely perform normal and emergency procedures within the platform's CRE.

b.   Utilises FSTD that are Qualified to the level necessary to meet the training requirements.

c.   Either eliminates or otherwise minimises any Negative Training, SFARP.

d.   Either eliminates or otherwise minimises risk during training, SFARP.

e.   Is delivered by qualified instructors operating in accordance with approved procedures.

f.   Is continually reviewed and updated through a quality system to ensure that it remains fit for purpose.

3.3 Training System Scope

3.3.1 The training system should address all hazards identified across the platform's CRE and the attendant Aircrew Competency requirements. Hazard identification should incorporate independent review to ensure its robustness.

3.3.2 IAW AMC.1 to DASR.AIRCREW.10.a.8, and IAW the Systems Approach to Defence Learning, document/s such as a Learning Management Plan (LMP) should be used to document the training system and demonstrate how the training system develops Aircrew Competency.

3.4 Qualification of FSTD

3.4.1 As described in DASR.FSTD.05 – *Flight Simulation Training Device Management*, FSTD should be Qualified to a recognised standard that meets the LMP requirements as determined by the MAO.

3.4.2   The Qualification of an FSTD to a recognised standard provides assurance to Commanders that it is demonstrably an acceptable replication of the parent platform. Qualification is a defensible process for characterising FSTD capabilities and limitations, and for identifying otherwise unknown deficiencies for actioning within the training system.

3.4.3   Higher FSTD Qualification levels are associated with fidelity to the edge of and sometimes beyond the normal flight envelope. This fidelity represents a unique and necessary means to develop advanced aircrew competencies in a controlled and relatively benign environment.

3.4.4   MAOs should exercise caution in relying excessively on informal subjective assessments of fidelity as they form only part of a Qualification Standard. The reliability of subjective assessments is dependent upon the breadth of experience and competency of the assessor to verify replication of key training areas such as critical emergencies or edge of the flight envelope scenarios.

3.4.5   Training System Deficiencies. When initial Qualification or continual improvement processes identify a deficiency within the training system, a formal documented risk management process should be used to identify risk controls and a path for elimination or minimisation of the risk associated with the deficiency, SFARP.

3.4.6   Broad-ranging or fundamental deficiencies such as an inability to achieve a Qualification Standard could bring into question the credibility of the training delivered through that device. Without Qualification, Negative Training may be inadvertently introduced into the training system.

3.4.7   Risk management of broad-ranging or fundamental deficiencies should be comprehensive and deliberate giving due consideration to the extent and credibility of training delivered in the FSTD.

3.4.8   The ADF Operational and Safety Context. MAOs should be cognisant that the ADF operational and safety context is different from foreign militaries. Foreign militaries in comparison with the ADF will operate to different health and safety legislation and may have differing safety and capability expectations driving their operations.

3.4.9   Any foreign training systems adopted/utilised should be reviewed in the ADF operational context to ensure that it eliminates or minimises training risks and the risk of competency based errors, SFARP.

3.4.10   Continual Improvement / Risk Monitoring and Review. Continual improvement through training risk monitoring and review is essential to ensuring that the training system remains contemporary by having formalised processes that identify when changes should be made. This could be through changes in

training systems, the CRE of the aircraft, recommendations from safety investigations, operational experience, broader industry changes etc.

Original Signed
March 2020
Director – ACPA, DASA