# CHAPTER 42

## PROCEDURES FOR ISSUANCE OF AIRWORTHINESS DIRECTIVES

## 0.0 LIST OF EFFECTIVE PAGES

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## 1.0 PURPOSE

**This section prescribes the procedures that must be followed in the publication and circulation of Airworthiness Directives (ADs) as required by the Nigeria Civil Aviation Regulations to the industry. Reference: Nig. CARs Part 5.4.1.9.**

## 2.0 GENERAL

**2.1** A primary safety function of the airworthiness organization within the CAA is to require correction of unsafe conditions found in an aircraft, aircraft engine, propeller, equipment or instrument or when such conditions develop in other aeronautical products of the same design. The unsafe conditions may be due to design deficiencies, manufacturing defects, maintenance programme deficiencies, or other causes. Mandatory Continuing Airworthiness Information (MCAI) are the means used to notify aircraft owners and other interested persons of unsafe conditions and to prescribe the conditions under which the aeronautical product may continue to be operated. One of the most commonly used types of MCAI issued by States is an Airworthiness Directive (AD). Some States may also consider as MCAI any mandatory and alert service bulletins issued by the organization responsible for the type design.

ADs are generally divided into two categories:

a) Those of an urgent nature requiring immediate compliance upon receipt; and
b) Those of a less urgent nature requiring compliance within a relatively longer period.

**2.2** The implementation of Airworthiness Directive (AD) could be limited to the State that issues the directive. It is essential, however, that appropriate action be taken on all affected aircraft and parts of all States concerned. States should therefore carefully assess the AD issued by the State of Design. The State of Design and the type design organization are primarily responsible for issuing this airworthiness information and are best suited for being informed about accidents, incidents and service experience concerning the continuing airworthiness of aircraft. A State of Registry may adopt by reference the AD issued by the State of Design of the aircraft, engine, propeller and appliances/accessories. Therefore, aircraft AD could be issued from a different State than the engine, propeller and appliances/accessories AD. The State should ensure that its operators have access to relevant AD and implement the required actions within the compliance time limit

**2.3** In addition to the MCAI issued by the State of Design, the State of Registry may issue MCAI for an aircraft on its register. States should only make mandatory requirements additional to those of the State of Design when there are urgent safety-related reasons or when the State of Registry has modified an aircraft because of unique airworthiness requirements. When possible, such action should entail prior consultation with the State of Design, but in all cases the State of Design should be notified as soon as practicable.

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## 3.0 PROCEDURES

### 3.1 ACTION BY THE NCAA UPON RECEIPT OF AIRWORTHINESS DIRECTIVES FROM STATE OF DESIGN

3.1.1 Airworthiness Directive (AD) issued by the State of Design are automatically applicable to all Nigerian registered aircraft as required by regulation 5.4.1.9(a) & (b). DAWS would assess the AD and verify during C of A renewal and during safety audit whether or not the AD is applicable to the aircraft on the Nigeria aircraft register and can be accomplished as intended. For instance, in some cases the aircraft may have been modified or had equipment installed without the type design organization or the State of Design directly involved in that modification or installation approval.

3.1.2 DAWS Principal Inspectors should be aware that some States of Design do not issue their Mandatory Continuing Airworthiness Information (MCAI) in the form of ADs, and may instead give mandatory status to notices such as Service Bulletins (SBs) or by requesting the type design organization to include a statement in the SB that the information has mandatory status for aircraft registered in the State of Design. Some States of Design publish summary lists of SBs which are classified as mandatory.

3.1.3 Any service information made mandatory by the State of Design should be clearly distinguished from service information that might be declared mandatory by the organization responsible for the type design. The type design organization may have classified the information as mandatory for the purpose of improving maintainability, inspect ability, the part's life-limit or for liability reasons. DAWS Principal Inspector should require operator to accomplish all service information made mandatory by State of Design in order to keep the aircraft airworthy. All relevant AD and service information should be recorded in the maintenance records and all the related maintenance records should be kept so that they could be presented to the NCAA upon request. Proper documentation of mandatory actions will also enable a smoother transfer of aircraft between States.

3.1.4 If an operator wishes to comply with the AD in an alternative way or have an extension of its compliance limit, a written request should be submitted for approval to the NCAA and in the case of the mandatory information issued by the

State of Design and adopted by the NCAA, the NCAA may not be able to make such a decision due to lack of relevant information or expertise. In such a case, the NCAA may consult the CAA of the State of Design or accept advice from the type design organization.

## 3.2 ISSUANCE OF AIRWORTHINESS DIRECTIVES BY NCAA

3.2.1 The Nigeria Civil Aviation Authority (NCAA) through the Directorate of Airworthiness Standards (DAWS) is empowered by Civil Aviation Act 2006 Section 30(3) (g) and Nig. CARs Part 5.4.1.9 to develop, publish and circulate to the aviation industry Airworthiness Directives as soon as the NCAA considers a condition in an aircraft, airframe, engine, propeller, appliances or component is unsafe.

3.2.2 The Directorate of Airworthiness Standards may assess manufacturer's Service Bulletins and Alert Service Bulletins for potential Airworthiness Directive action [regulation5.4.1.9(c)].

3.2.3 If the DAWS does not find the required action taken by the State of Design sufficient to correct an unsafe condition, the NCAA will issue its own mandatory action [regulation 5.4.1.9(c)]. In addition, the NCAA will make the necessary coordination with the State of Design.

3.2.4 The DAWS will constitute a team to draft the AD in consultation with the Type Design Holder and possibly the State of Design. At a minimum, the contents of ADs include the aircraft, engine, propeller, equipment or instrument type, model and serial numbers affected. Also included are the compliance time or period, a description of the difficulty experienced, and the necessary corrective action.

The AD shall contain the following:

i) The Unsafe Condition that the AD is meant to prevent
ii) The action required or compliance.
iii) The alternative method of compliance, if available.
iv) The cost of compliance and man-hours required, if determinable
v) Reference SB, ASB or other technical document, if available
vi) The applicability
vii) The effective date.

3.2.5 AD Consultation Process

After the draft AD specified in the Para 3.2.4 is completed, the final proposed AD after Director General's approval will be published Notice of Proposed Airworthiness Directive (NPAD) on NCAA website for 30 days for public comments. If deemed necessary, DAWS may decide to modify this period depending on the type of proposed AD. The DAWS may collect public comments, either in a meeting or in written, from the original equipment manufacturer (OEM) and operators to provide comments about corrective actions for unsafe conditions, reasonable cost impact, practicable effective date and compliance time etc.

3.2.6 Approval of the Proposed AD

All Comments received within the comment period will be consolidated and a draft Comment Response Document will be prepared by the team. The Comment Response Document will be submitted to the DAWS for review through GM-ASA. The DAWS with his management reviews the comments received to decide appropriate responses. The DAWS may consult expert from industry to finalize the corrective action plan. The AD team after incorporating the changes on the basis of decision taken on the comment response document will prepare the final AD and submit through GM-ASA to DAWS for approval of the DG. When time constraint makes collecting public comments impracticable, the NCAA may issue the AD first then collect public comments later to revise the AD. After the AD specified above is issued, the DAWS may collect comments, either in a meeting or in written, from the public to revise the AD when necessary.

3.2.7 Numbering of AD

The approved AD will be allotted a number. AD number for a new or superseded AD will be given in a format NCAA-YR-MTH-ADXXX for example, NCAA-2016-01-AD001, where NCAA stands for the Nigeria Civil Aviation Authority and the 1st string represents the year, the 2nd string represents the month, and the last string is the number in sequence Airworthiness Directive - AD 001, AD 002

3.2.8 Changes to previously issued AD

If changes to previously issued ADs are deemed necessary, these changes are issued as corrections or revisions to the original AD depending on the nature of the content being changed. In addition, ADs may be superseded by new ADs depending on the nature of the content being changed. The final consideration is the effect the change will have on the AD and on the owners/ operators who would be affected by the AD.

3.2.9 Corrected AD

The simplest form of an AD change is a corrected AD of non substantive material, i.e., the change has no effect on compliance with the AD. An AD may require correction of a non substantive NCAA error or a printing error in the NCAA website. If a non substantive error or typing error is found in an AD, it may be called for correction. The DAWS reviews such error in the AD in coordination with AD team, if necessary. Then, the GM-ASA corrects the AD and submits it to the DAWS for approval and publication. The original AD is replaced with the corrected AD. The corrected AD is indicated with letter ‘A’ at the end of last string on the original AD number e.g. NCAA-2016-01-AD001A.

3.2.10 Superseding / Revised AD

A substantive change to an AD is issued as a superseded AD. Substantive changes, including corrections, are those made to any instruction or reference that affects the substance of the AD. Substantive changes may include part numbers, service bulletin and manual references, compliance time, expanded applicability, methods of compliance, corrective action, inspection requirements, and effective dates. In general, whenever there is an additional (or different) requirement imposed or an expanded scope of required inspection, the change should be issued as a superseded AD. Substantive changes to an AD are assessed by the DAWS in coordination with the TC/STC holder / Industry expert following the process detailed above. After approval of DG, the AD will be issued for distribution and publication. The reason paragraph should include a discussion of each change, how each change affects compliance, and the fact that all other parts of the AD remain as originally published.

3.2.11 Record Keeping

All records related to procedures followed for issuance of AD /EAD should be retained in the TFCC. Before issuing an AD, an AD database containing all key data should be maintained for making AD lists and AD inquiries. The processes leading to the issuance of AD will be filed in a file called AD process file.

3.2.12 Notification, Distribution and Publication of the AD

The approved AD will be published on NCAA website for compliance by stake holders. A copy of AD will also be forwarded to the TC / STC holder and affected owners/operators by email. The information on AD will also be forwarded to the State of Design for information.

## 4.0 EMERGENCY AD PROCEDURES

**4.1** In case of situations, in which emergency action by NCAA is required, the DAWS reviews the proposed corrective action as per Para 3 above and assess if an Emergency AD is appropriate. The DAWS then drafts the Emergency AD in co-ordination with the TC/ STC holder or industry expert, if available. As the Emergency AD requires immediate notification and publication, the DAWS submits the Emergency AD to DGB for approval.

**4.2** NCAA may decide not to implement the consultation process. A justification explaining why the consultation process is not followed and the reasons for issuing an Emergency AD is provided in the text of the Emergency AD, “Reason” .The standard AD review and public comments collection process may be implemented later on and to revise the AD, if required.

**4.3** Notification, distribution and publication of Emergency ADs

4.3.1 After approval by the DG, in accordance with Para 3, the DAWS advises immediately for issuance of the Emergency AD. Intimation, distribution and publication of Emergency ADs follow the provisions under Para 3.2.12.

4.3.2 The effective date of the Emergency AD is the date of approval unless otherwise specified in the AD itself.