

TECHNICAL GUIDANCE MATERIAL

for

Designated Airworthiness Representatives (DAR)

SUBJECT: TECHNICAL GUIDANCE MATERIAL FOR DESIGNATED AIRWORTHINESS REPRESENTATIVES.
EFFECTIVE DATE: 17 MARCH 2023

APPLICABILITY

This guidance material is applicable to individuals who are employees of Approved Maintenance Organisations (AMO), who seek to be designated by the Director of Civil Aviation (DCA) as Authorised Persons.

PURPOSE

The purpose of this technical guidance material is to provide procedural guidelines concerning the delegation process of Authorised Persons to conduct verification of compliance and approval of installation of modifications and repairs of aeronautical products. In accordance with Section 88(1)(b) of the Civil Aviation Act 2009 (Act No. 13 of 2009) (“the Act”), the SACAA may on behalf of the Director of Civil Aviation delegate some of the functions normally carried out by Authorised Officers to other individuals who are not employees of the SACAA. It is intended that Authorised Persons will review and approve installations of modifications and repairs of aeronautical products within the scope of authorisation as detailed in the Letter of Authorisation (LOA).

REQUIREMENTS

SACAR 145.01.10 states that the Director may, designate an airworthiness representative to perform functions as prescribed in Document SA-CATS 145.

1. REFERENCE:

- i. Part 43 Subpart 1 of the SACARS
- ii. Part 43 Subpart 2 of the SACARS
- iii. Part 43 Subpart 3 of the SACARS
- iv. Part 145 of the SACARS
- v. SA-CATS 43, SACATS
- vi. SA-CATS 145, SACATS
- vii. Part 21 of the SACARS
- viii. Part 187 of the SACARS, Fees.

2. TERMS AND ABBREVIATIONS:

TERM	DEFINITION
Aircraft	means an aircraft as defined in the Act, including its engine, propellers, rotor, components, parts, equipment, instruments, accessories and materials
Aircraft Type	means all aircraft of the same basic design, including all modifications thereto, except those modifications which result in a change in handling or flight characteristics.
Airworthiness Data	means any information necessary to ensure that an aircraft or aircraft component can be maintained in an airworthy condition;
Approved Data	means data that can used to substantiate major repairs or major alterations derived from Supplemental Type Certificates, Airworthiness Directives etc
Delegated Airworthiness Representative	A Delegate in terms of SACAR 145.01.10
Delegation Manual	means engineering procedure manuals reviewed and accepted by SACAA, which governs the delegation holder's activities;
Designee Oversight File	means a file maintained at the SACAA that contains information pertinent to the delegated holder's professional records.
Finding of Compliance	means a determination that a specific element of the design or design change satisfies applicable airworthiness standards

ABBREVIATION	DESCRIPTION
AD	Airworthiness Directive
ADO	Approved Design Organisation
AMO	Approved Maintenance Organisation
C of A	Certificate of Airworthiness
CRMA	Certificate Relating to Maintenance of an Aircraft
DAR	Designated Airworthiness Representative
ICAO	International Civil Organisation Organization
LOA	Letter of Authorization
NAA	National Aviation Authority
OEM	Original Equipment Manufacturer
SACAA	South African Civil Aviation Authority
SACARs	South African Civil Aviation Regulations
SACATS	South African Civil Aviation Technical Standards
SRM	Structural Repair Manual
STC	Supplemental Type Certificate
TC	Type Certificate
TCDS	Type Certificate Data Sheet

3. GENERAL

3.1 QUALIFICATION CRITERIA

3.1.1 To qualify for a designation as DAR, all applicants must possess the general qualifications listed hereunder in addition to having the specialised experience and appropriate to the function for which designation is sought.

3.1.2 The qualifications for authorised persons shall be no less than those of Airworthiness Inspectors employed by the SACAA.

The applicant for delegation as authorised person under this category and apart from being appropriately authorised quality inspector within the AMO concerned shall possess the following qualifications:

- a. Grade 12 or equivalent certificate,
- b. Qualified aircraft technician (Trade Test Certificate)
- c. Aircraft Maintenance Engineer Licence in Aircraft mechanic, structural worker, radiotrician, electrician or avionician.

3.2 KNOWLEDGE AND WORK EXPERIENCE

3.2.1 The applicant for the authorised delegation under this category shall have at least five years of satisfactory experience of general and practical aviation maintenance experience after completion of the relevant trade test. The applicant will be invited to a panel assessment meeting where they will be asked to demonstrate knowledge of the following:

- a. A thorough knowledge and understanding of the SACARs, SACATS TGM and applicable aviation design standards;
- b. have experience in actual performance of maintenance, repair and modification of aircraft, engines and aircraft systems or components;
- c. have experience in certifying as airworthy an aircraft or parts after maintenance has been performed in accordance with SACARs;
- d. knowledge of SACAA product design approval procedures, processes, means and methods of compliance;
- e. knowledge of ICAO requirements in relation to aircraft type certification requirement including ICAO Annexes 8 and ICAO Airworthiness Technical Manual;
- f. ability to find and interpret information relating to SACAA legislation for type certificate, airworthiness, supplementary type, maintenance, modification and repairs aspects of the aircraft;
- g. ability to interpret and apply relevant information contained in the following documents relating to the issue of Airworthiness Approval:
 - i. The Type Certificates and Type Certificate Data Sheets.
 - ii. Airworthiness Limitations and Certification Maintenance Requirements.
 - iii. Aircraft Flight Manuals.
 - iv. Airworthiness Directives.
 - v. The weight and balance report for the aircraft.
 - vi. Any test flight report for the aircraft.
 - vii. Any report providing details of the maintenance carried out on the aircraft such as modification and repair.
 - viii. Manufacture instructions for continuous airworthiness, primarily the airworthiness limitations including CMR's.

3.3 TRAINING

3.3.1 The following is a minimum list of short courses required over and above the qualifications required for all persons who wish to apply for the designation to be DAR's on behalf of the Director of Civil Aviation in the AMO's from which they are employed:

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- a. SACAA Regulations
- b. Human Factors
- c. Safety Management Systems

3.3.2 The SACAA will offer training (minimum 3 projects) to designated individuals after issuance of letter of authorisation and before the designee can review or approve any modification or repair installations. Delegates may also be required to attend seminars that familiarise the delegates with SACAA procedures and publications in the interest of standardisation. The SACAA management reserves the right to require a delegate to attend any or all seminars deemed necessary as part of continuous professional development.

3.4 TECHNICAL DISCIPLINES FOR THE SCOPE OF AUTHORISATION

The following categories of technical specialities on which authorisation shall be granted to applicants who meet the minimum requirements as stipulated in this document.

3.5 STRUCTURAL MODIFICATION AND REPAIR

The holder of the authorisation shall be delegated the authority to review and approve structural modifications and repairs with approved data eg STC or manufacturer's repair scheme.

3.6 MECHANICAL MODIFICATION AND REPAIR (POWER PLANT)

An authorised person who holds the power plant installation delegation shall have the authority to review and approve installation modifications relating to the Power Plant.

3.7 MECHANICAL MODIFICATION AND REPAIR (Airframe mechanical & hydraulic systems)

An authorised person who holds the power plant installation delegation shall have the authority to review and approve installation modifications relating to airframe mechanical & hydraulic systems with approved data.

3.8 ELECTRICAL AND AVIONICS MODIFICATION (AVIONICS AND ELECTRICAL SYSTEMS)

An authorised person who holds the electrical and or avionics delegation shall have the authority to review and approve modification installations relating to subcategories like avionics, electrical, communication and navigation systems with approved data

3.9 APPLICATION FOR AUTHORISED PERSON

3.9.1 Application for issuing or amendment of an authorised person delegation shall be make in a prescribed form and manner accompanied by-

- a. Proof of employment to the AMO concerned
- b. Copy of identity document or card
- c. Appropriate fee prescribed in part 187
- d. Current curriculum vitae
- e. Formal letter of nomination for authorised person candidacy by an AMO concerned

- f. Copy of the procedure for appointment of individuals to conduct authorised person functions within the AMO concerned
- g. Any such further particulars relating to the applicant as may be required by the DCA.

3.10 SUBMISSION OF APPLICATION

An applicant must submit a properly completed application form (Form Number: **CA 145-06a**) to der@caa.co.za. Proof payment can be through a stamped application form if payment was done at any of the CAA counters or evidence of EFT payment if payment was done through internet banking. No technical data (substantiation material) shall be submitted with the application form.

3.11 SCOPE OF AUTHORITY

3.11.1 A successful applicant shall be issued with a Letter of Authorisation (LOA). The letter shall specify the effective date of authorisation, defines scope of authorisation including the speciality (Technical Discipline), general limitation and additional limitations that may be deemed necessary by the DCA.

3.11.2 The scope of authorisation shall be defined using the following elements:

- i. Engineering Speciality
- ii. Limitations

4. LIMITATIONS, TRANSFERABILITY AND DURATION OF AUTHORISATION

4.1.1 The authorisation may be limited to any definable part of the subject matter of function according to the applicant's qualifications, knowledge and experience.

4.1.2 An authorisation may be granted for a period not exceeding 12 months.

Note: A delegation is not transferable

5. RENEWAL OF AUTHORISATION

5.1 This section provides requirements for the renewal of an airworthiness designation, covering the responsibilities of both SACAA and the delegate. Information regarding renewal of delegations of other technical disciplines is contained in the documents referred to within the Industry Delegate Appointment section of this guidance material.

5.2 An application for the renewal of an authorisation must be made by the authorised person on applicable form and accompanied by the appropriate fee. The application must be submitted to the DCA not less than 60 days before authorisation expires. The authorised person is responsible for submitting an application to the SACAA managing office for renewals.

5.3 To be eligible for renewal the applicant must be the holder of a current authorisation and must not have changed employment within the current authorisation period. A new application for authorisation shall be required should the holder change employers.

5.4 The applicant must also provide evidence of activity done within the scope of authorisation during the current and preceding period of authorisation.

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- 5.5 The SACAA will process the renewal application in accordance with their documented processes and procedures.
- 5.6 The SACAA will determine that the need for the appointment still exists, and that the SACAA has the ability to continue to manage the delegate, in liaison with the appropriate oversighting office.
- 5.7 The SACAA will review the delegate's file for completed activity. Lack of activity may be used as justification for termination.
- 5.8 When determining whether to renew an appointment, the SACAA managing office must verify that the delegate has performed sufficient activities consistent with authorised functions to ensure continued proficiency in those functions.
- 5.9 If the SACAA approves the delegate for renewal, an authorisation letter will be issued.
- 5.10 If the renewal application is denied, the SACAA will issue a letter to the applicant advising of the decision.

6. **SUSPENSION AND CANCELLATION OR REVOCATION OF AUTHORISATION**

- 6.1 An Authorised Person delegated by the Director to conduct oversight on the DAR may suspend or cancel the authorisation in terms Part 185, subpart 4, if-
 - a. The authorised person has not exercised the delegated functions in accordance with the scope of delegation, regulations and specified guidelines.
 - b. The authorised person resigns from the AMO through which delegation was obtained.
 - c. Lack of sufficient activity within the scope of authorisation to justify the continued delegation.
 - d. Unsatisfactory performance - when SACAA finds that the delegate has not properly exercised or satisfactorily performed the duties of the delegation.
 - e. The authorised person contravenes any conditions of authorisation.
 - f. Misconduct or misrepresentation by the authorised person during performance of any of the delegated functions.
 - g. The authorised person prevents SACAA authorised officer/s from carrying out any inspection or audit or oversight on any of the functions or records of activities accomplished by the Authorised Person concerned.
 - h. Lapse of qualification - when SACAA finds that the delegate's qualifications for a specific activity has lapsed.
 - i. By request – at the request of the delegate or the delegate's employer.
 - j. Insufficient activity - when SACAA finds that the delegate has not had sufficient activity to warrant continuance of the delegate.
- 6.2 The holder of the authorisation which is cancelled or revoked shall surrender the authorisation letter to the DCA within seven 7 days from the date which the authorisation was cancelled or revoked.

7. **OVERSIGHT**

- 7.1 These activities (supervision, monitoring and tracking) are not necessarily separate activities; they are generally conducted together as part of the on-going oversight. The oversighting office will provide supervision to ensure the delegate is performing assigned authorised functions in accordance with the appropriate regulations, policies and procedures. The regulatory oversight of the delegate assigned to:
 - a. Ensure that the delegate has obtained and maintains all guidance material necessary to perform the authorised function(s).
 - b. Determine that the delegate is performing within the scope of their authorised function(s).

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- c. Verify that the delegate has on-going activities to justify continuance of the delegate.
- d. Ensure the delegate has direct communication to appropriate authorities within SACAA, including the assigned oversighting office.
- e. Emphasise that the delegate should seek SACAA's assistance in relation to any concerns connected with their authorised function(s).
- f. Verify that the delegate has appropriately recorded and reported activities in relation to the exercise of his delegation.
- g. Determine that the designee is performing within the scope of their delegated function(s).
- h. Verify that the delegate has on-going activities within the scope of delegation to justify continuance of the designation.
- i. Determine whether the delegation holder duly upholds the required independent checking function and verification of compliance of technical data compiled by other persons.

7.2 The audit review will include sampling of the approvals accomplished by the relevant delegation holder. Feedback of audit report will be provided pertinent to the quality of the approvals and action required to correct any deficiencies identified during the audit.

7.3 In accordance with relevant specific oversight guidelines, the oversighting office will conduct a one-on-one meeting to discuss the delegate's performance. Appropriate corrective action (e.g. additional training or counselling) will be determined and initiated. If the delegate fails to address the deficiencies or demonstrate acceptable methods, techniques and practices after completion of correction action, a follow-up session will be conducted to determine if the delegate's performance is acceptable. If it remains unsatisfactory, possible revocation will be considered. Unsatisfactory performance issues and date of follow-up will be documented.

8. RESPONSIBILITIES AND OBLIGATIONS OF DESIGNEES

8.1 The delegation holder has a responsibility to ensure that he/she carries out his/her delegated activities strictly in accordance with the terms and provisions of the delegation and shall not exceed the statutory powers delegated to him/her. i.e. The designee shall be responsible for approving installation of modifications and repairs on aeronautical products in technical areas that they are deemed competent in on their letter of authorisation and with their designated scope as stipulated below

8.2 The designee must always ensure that the design data which he/she has reviewed is complete, accurate and complies with the relevant airworthiness standards, procedures and existing guidelines.

8.3 The designee shall exercise due care and diligence in carrying out their delegated functions and must avoid involvement in any irresponsible, negligent, and unethical conduct in the process of carrying out their delegated functions.

8.4 The designee shall provide a certificate of compliance of technical data attesting to it's compliance to the regulatory and airworthiness requirements and may as well be used as an instrument of installation approval.

8.5 Due to the fact that delegation holders are considered as representatives of SACAA and act on behalf of the DCA when overseeing compliance to specific airworthiness requirements, due consideration must be taken to ensure that organisational commercial pressures and interests do not influence decision on their oversight responsibilities.

8.6 The designee must at all times ensure that in performing their duties within their delegated technical scopes, they shall not approve their own designs and developed work. i.e. the principle of independent checking shall always be adhered.

8.7 The designee must ensure that they keep abreast of the SACAA policies, procedures and regulations and to attend seminars, conferences and workshops relevant to their delegation functional areas.

8.8 Notify the DCA with seven 7 days of any change of employment with the AMO through which the existing delegation was obtained. Any other proposed change having a direct effect on the performance of authorised functions shall be subject to prior approval by the DCA before implementation.

9. RECORDS AND REPORTS


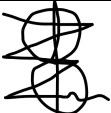
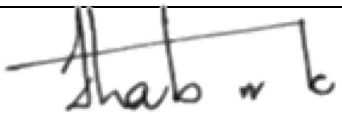

- 9.1 Each designee shall establish and maintain a record keeping system to ensure that all activities related to their delegated functions are traceable and retrievable. This shall include the following:
- a. Records of design data for all the aeronautical product designs approved by the delegation holder, including drawings, photographs, specifications and reports pertinent to the substantiation of the relevant installation approvals.
 - b. Record by make, model and where applicable, serial number, those products for which design data has been approved by the delegation holder.
- 9.2 Delegates will be required to report their activities to SACAA using the oversighting office email (der@caa.co.za) with 48 hours of conducting any approval of installation. Delegates will be required to send all design data used in the issuance of their approval, including the approval certificate issued to their AMO.
- 9.3 Upon receipt of activity reports from delegates, SACAA will ensure that the report is recorded promptly and appropriately into SACAA systems.
- 9.4 The oversighting office will monitor the delegate's activity by reviewing the work records and records for accuracy, and by observing the delegate's activity to ensure that they use proper procedures and satisfactory techniques and methods:
- a. As required by relevant specific oversight guidelines, witness the delegate exercising their delegated power or function to ensure satisfactory techniques are used.
 - b. Ensure that all documentation initiated by a delegate is processed in accordance with the appropriate regulation, guidance material and any direction provided by SACAA. Review a sample of the delegate's documentation and discuss any discrepancies.
 - c. Review completed documentation of authorised function(s) performed by the delegate.
 - d. Document and record all oversight actions undertaken, including any feedback to the delegate, documents reviewed, and interviews undertaken.

10. DELEGATION MANUAL:

- 10.1 Each organisation nomination applicant for designation is required to submit two copies of delegation manuals or procedures. The delegation manuals or procedures is the cornerstone of the delegation system as it provides a complete framework within which the authorised person will exercise the delegation functions within the organisation concerned.
- 10.2 The manual outlines procedures for the performance of the delegated functions and will be used to achieve the following objectives:
- a. Define the responsibilities, privileges, and limitations of the delegation authority.
 - b. Provide information on the procedures governing the conduct of the delegated functions.
 - c. Identify communication procedures with SACAA.
 - d. Enhance the efficiency and effectiveness of the aeronautical product approval process.
 - e. Promote a shared commitment to aviation safety.
- 10.3 The content of the delegation manual shall cover but not be limited to the following key areas:
- a. The name and address of the AMO, where the applicant is an employee.
 - b. The statement by the applicant that he/she meets the minimum eligibility requirements to ensure effective performance of the functions and duties that is integral to the prospective field/s of delegation.

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- c. Outline the procedures to be followed to fulfil the intended delegated functions and responsibilities.
- d. Detail how the liaison with the SACAA will be carried out in relation to the conduct of flight test programs and issuance of experimental certificates of airworthiness.
- e. A system for record keeping ensuring that all the important activities relating to the delegation are traceable.

DEVELOPED BY:		
	MDUDUZI DUBE	17 MARCH 2023
REVIEWED BY:		
	EPHRAIM MAROLE	17 MARCH 2023
SIGNATURE OF MANAGER: AED	NAME IN BLOCK LETTERS	DATE
VALIDATED BY:		
	LOBANG THABANTSO	17 MARCH 2023
SIGNATURE OF SM: AW	NAME IN BLOCK LETTERS	DATE
APPROVED BY:		
	SIMON SEGWABE	17 MARCH 2023
SIGNATURE OF E: ASO	NAME IN BLOCK LETTERS	DATE

END