AIRWORTHINESS GUIDE (AG) - 4

DESIGNATED ENGINEERING REPRESENTATIVE (DER) GUIDANCE HANDBOOK



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1 CHAPTER 1: GENERAL

1.1 Purpose

This document establishes the GACA S&ER policies and procedures for the application, appointment, renewal, termination, oversight and general conduct of a GACA Designated Engineering Representative.

1.2 Cancellation

This document cancels the original issue of the Airworthiness Guide (AG)-4.

1.3 Background

At the 18th Annual JAA/FAA International Conference in Geneva in June, 2001, the FAA announced that it intended to implement a policy to restrict the activities of FAA authorized DERs on foreign registered aircraft. The FAA stated that its DER system is only intended to serve the needs of aircraft registered in the U.S. and that FAA DERs will only be authorized to be involved with foreign registered aircraft under very specific circumstances. These circumstances are twofold: in support of FAA Supplemental Type Certificate (STC) projects which involve prototype installations in aircraft registered in a foreign country, or in support of repair approvals granted by U.S. type certificate holders for their own type certified products (e.g., Boeing, Raytheon). This shift in FAA policy has had a significant impact on the GACA S&ER in that it is no longer able to rely on FAA DERs as a source of approved data for the repair and modification/alteration of aircraft registered in the KSA.

In addition, the aviation industry based in the Kingdom of Saudi Arabia requires engineering delegation for their qualified employees.

Therefore, the GACA S&ER has implemented its own GACA-DER program. This AG-4 documents the policies and the procedures associated with the GACA-DER program.

1.4 Explanation of Changes

The primary changes that this document introduces from the previous procedures are as follows:

- a) Changed all references of PCA-ASSD to GACA S&ER to reflect the new organizational structure of the Civil Aviation Authority of the Kingdom of Saudi Arabia.
- b) The expansion of the eligibility criteria for GACA-DERs to include those individuals not holding FAA DER authority provided they are resident in the Kingdom of Saudi Arabia.
- c) Added new requirements for Domestic DER application.
- d) Added new documents requirements to be submitted for Domestic DER application.

1.5 Definitions & Acronyms

S&ER Safety & Economic Regulation

CAA Civil Aviation Authority

DER Designated Engineering Representative

Employed Contracted to or on the payroll of an Organization

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FAA Federal Aviation Administration (U.S.) FAAO Federal Aviation Administration Order FAR Federal Aviation Regulations (U.S.)

KSA Kingdom of Saudi Arabia

Organization GACA S&ER certificated air carrier, air operator or repair station certificated

under part 121, 125, 135, or 145

GACA General Authority of Civil Aviation (Kingdom of Saudi Arabia)

GACA-DER GACA Designated Engineering Representative

GACA/FAR GACA regulations

U.S. United States() As revised

1.6 Reference Documents

Primary Regulation: GACA/FAR part 183.29

Other documentation;

GACA Airworthiness Guide (AG) – 7 (), Alterations & Repairs

FAAO 8110.37 (), DER Guidance Handbook

FAAO 8100.8 (), Designee Management Handbook

GACA S&ER Policy and Procedures Manual, latest issue

1.7 Related Forms (see Appendix 1)

GACA S&ER form 8110-3 (), Statement of Compliance.

GACA S&ER form 8110-14 (), Statement of Qualifications.

GACA S&ER form 8110-25-2 (), Certificate of Authority (GACA-DER).

GACA S&ER Form 8110-29 (), DER/GACA Interaction Tracking

GACA S&ER Form 8110-30 (), DER Performance Evaluation

1.8 Distribution

Internal and external.

1.9 Airworthiness Guide Approval Statement

Approved by:

(Original signed by Capt. M. A. Jamjoom)

Captain Mohammed Ali Jamjoom Vice President Safety & Economic Regulation General Authority of Civil Aviation



2 POLICY STATEMENTS

2.1 GACA S&ER Policies

The following policy statements list the GACA S&ER airworthiness policies associated with the GACA-DER program. These policy statements supplement the GACA/FAR requirements.

- a) GACA-DERs are appointed by GACA S&ER only when there is a justified need for engineering delegation;
- b) The GACA-DERs are delegated to make findings of compliance to airworthiness requirements on behalf of the GACA S&ER in support of major alteration and repair only for aircraft registered in the KSA;
- c) A database containing names, categories, designations, validity period and contact information of valid GACA-DERs shall be maintained by the GACA S&ER and provided to interested parties engaged in the operation and maintenance of aircraft registered in the KSA;
- d) GACA-DER, Foreign and Domestic, must be employed by an Organization;
- e) Applications shall not be accepted from foreign applicants for GACA-DER in the candidate category;
- f) Any application for a GACA-DER Certificate of Authority shall be assessed against the current requirements of GACA/FAR 183.29, the supporting procedures contained in FAAO 8110.37() and FAAO 8100.8() or subsequent, and the specified policies and procedures contained in this AG-4. In case of conflict between this AG-4 and the FAAOs, AG-4 is to prevail;
- g) GACA-DERs must operate within the context of GACA regulations, policies and procedures and must use GACA-S&ER forms;
- h) The validity period for a GACA DER (Domestic) shall be one Hegira year from date of appointment;
- i) The validity period for a GACA-DER (Foreign) shall not exceed the validity period on the foreign DER authorization on which the GACA-DER authority is based and in no case shall it exceed 2 years;
- j) GACA-DERs performance shall be evaluated by the GACA S&ER on an ongoing basis and corrective actions taken to correct identified deficiencies in performance; and,
- k) Delegation to organizations is excluded from the GACA-DER program.

Information Note:

GACA SFAR 36 authority is not considered as a delegation to an organization and therefore this AG-4 does not impede on GACA SFAR 36 authority.



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3 GACA-DER CATEGORIES, DESIGNATIONS, PRIVILEGES AND LIMITATIONS

3.1 General

Designation of a person as a GACA-DER is a privilege granted by the General Authority of Civil Aviation. It is not a right of every qualified applicant to be granted a GACA DER designation. A GACA DER finds compliance or recommends the GACA S&ER findings of compliance with appropriate airworthiness requirements.

GACA-DERs shall be appointed with specific categories, designations, privileges (authorized scope of authority, functions, areas) and limitations. Each GACA-DER appointment will list the specific categories, designations, privileges and limitations in the Certificate of Authority which is issued to the GACA-DER.

3.1.1 Categories

GACA-DERs shall be appointed in one of the following categories.

- Company GACA-DER
- Consultant GACA-DER
- Dual Appointment.
- Candidate GACA-DER

3.1.1.1 Company GACA-DER

An individual may be appointed to act as a company GACA-DER for their employer and may only approve or recommend approval to GACA, technical data for their sponsoring company.

GACA-DERs appointed in the Company GACA-DER category or the Dual Appointment category may only perform GACA-DER activities while employed by the sponsoring company.

Information Note:

A Company GACA-DER cannot be employed by an Organization unless an officer of the company within which the GACA-DER can exercise his/her delegation has recommended it in writing on form GACA S&ER 8110-14, block 13.

3.1.1.2 Consultant GACA-DER

An individual may be appointed to act as an independent (self-employed) consultant GACA-DER to approve, or recommend approval of technical data to the GACA S&ER for a client.

3.1.1.3 Dual Appointment

An individual may be appointed to act both as a company GACA-DER and a consultant GACA-DER. In such a case, two separate appointments will be made and separate certificates of delegation issued. The GACA S&ER will advise the GACA-DER that the employer should be informed of the dual appointment. In the case of dual appointments, the consultant GACA DER



delegation may be authorized for areas different from the company GACA-ER delegation depending upon the applicant's experience and the limitations the GACA S&ER may place on the GACA-DER.

3.1.1.4 Candidate GACA-DER

If an applicant meets all the requirements for a GACA-DER designation except for significant experience in a direct working relationship with the GACA S&ER, the applicant may be identified as a GACA-DER candidate. Candidates do not have the authority to make findings of compliance or approve data, but must review and make recommendations of compliance to the GACA S&ER to demonstrate their ability to function as a GACA-DER. After demonstrating this capability, the GACA-DER candidate will be delegated authority as a GACA-DER providing the GACA S&ER has a need and the ability to manage the GACA-DER.

3.1.2 Designations

GACA DERs may be appointed in one or more of the following designations subject to their qualifications and experience and requested designations.

3.1.2.1 Structural GACA-DER

Structural GACA-DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Engineering reports,
- b) Drawings,
- c) Material and process specifications used in structural applications, and
- d) Other data relating to structural considerations.

3.1.2.2 Powerplant Installation GACA-DER

Powerplant Installation GACA-DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Engineering reports,
- b) Drawings, and
- c) Other data relating to powerplant installations, including all systems and equipment necessary for the proper operation of the powerplant.

3.1.2.3 Systems and Equipment GACA-DER

Systems and Equipment GACA-DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Engineering reports,
- b) Drawings, and
- c) Other data relating to aircraft systems and equipment design not covered by structural or powerplant representatives.



3.1.2.4 Engine GACA DER.

Engine GACA DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Engineering reports,
- b) Drawings, and
- c) Other data relating to durability, materials, and processes employed in engine design, operation, and maintenance.

3.1.2.5 Propeller GACA-DER

Propeller GACA DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Engineering reports,
- b) Drawings, and
- c) Other data relating to propeller blade and hub design, pitch control, propeller governing, and maintenance, provided these items comply with the pertinent regulation(s).

3.1.2.6 Flight Analyst GACA-DER

Flight Analyst GACA DER's may prepare and/or approve, within the limits of their appointment, the following items that comply with pertinent regulation(s):

- a) Aircraft performance flight test data,
- b) Aircraft quantitative operating data, and
- c) Flight characteristics data.

3.1.2.7 Flight Test Pilot GACA-DER

Flight Test Pilot GACA DER's may conduct and approve, within the limits of their appointment, flight tests of new or modified aircraft.

3.1.2.8 Acoustical GACA-DER

Acoustical GACA DER's may witness and approve, within the limits of their appointment:

3.1.3 Privileges

Specifically, GACA-DERs shall be granted privileges for categories of products, functions and areas for which GACA-S&ER has found that they are qualified and their appointment would be in the interest of GACA. Specifically, each GACA DER shall be granted privileges in the following manner.

3.1.3.1 Scope of Authority

Scope of Authority shall list aircraft categories as per GACA/FAR design requirements (e.g. Part 23, 25, 27, 29);

Information Note:

The identification of a specific GACA/FAR Part also implies any predecessor regulations (i.e., Part 25 includes CAR 4b).

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3.1.3.2 Delegated Functions

Delegated Functions shall be established and specified as per charts found in FAAO 8110.37E (), Appendix B.

3.1.3.3 Authorized Areas

Authorized Areas shall be established and specified as per charts found in FAAO 8110.37E (), Appendix B.

3.1.3.4 Special Delegations/Authorizations

GACA-DERs may be authorized special delegations or functions as determined on a case-bycase basis. Special authorizations and limitations for GACA-DERs will be established in accordance with FAAO 8110.37 () with the exception that Administrative GACA DERs, PMA Identically and Major Repair and Major Alteration special authorizations will not be granted by the GACA S&ER.

3.1.4 Limitations

GACA-DERs shall be limited in their authorized activities to those functions and activities which they are qualified. GACA-DERs shall be limited in their activities in accordance with individual limitations established on a case-by-case basis and General Limitations (as per Section 3.1.4.1).

3.1.4.1 General Limitations

All GACA-DERs shall be limited in their authorized activities in accordance with general limitations as noted below.

- a) GACA-DER activities shall be carried out in accordance with GACA/FAR Part 183.29, GACA Airworthiness Guides (AG), and FAA Order 8110.37 ()- Designated Engineering Representative (DER) Guidance Handbook (), unless otherwise stated by GACA S&ER. In case of conflict between GACA Airworthiness Guides and the FAAO, GACA Airworthiness Guides are to prevail.
- b) Statements of Compliance shall be made using GACA S&ER form 8110-3.
- c) GACA-DER authorized activities may only be carried out while a GACA-DER is employed by an Organization.
- d) The GACA project numbers (see AG-7, Aircraft Alterations and Repairs) are required to be quoted by the GACA-DER on the GACA S&ER form 8110-3 in the "Purpose of Data" block.
- e) Should the scope of a project (for which a project number has already been issued) change to the extent that the GACA-DER authorized activities are exceeded then the GACA-DER must report the situation to GACA-S&ER and wait for GACA-S&ER determination before the GACA-DER completes the project activities.
- The GACA-DER may use as many experienced engineers as needed to completely evaluate engineering technical data; however, the GACA-DER accepts the responsibility for approving the technical data when signing the GACA S&ER form 8110-3. A GACA-DER may decline to approve any or all portions of the technical data, and may forward such data to the GACA S&ER for approval. In such instances, the GACA-DER must



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- specify reasons for not approving the technical data.
- g) The GACA does not authorize any GACA-DER to infer that he or she is a GACA employee or to use the GACA logo on things such as: business cards, letterheads, facsimile covers, document covers, or any other business forms.
- h) GACA-DER's may not use their GACA-DER identification number when signing company or personal reports, drawings, service documents, or letters. This ensures that the GACA-DER's signature on such documents does not constitute GACA S&ER approval.
- i) Any other specific limitation listed on the GACA-DER Certificate of Authority.

3.1.4.2 Items Requiring GACA S&ER Approval

The GACA S&ER retains authority and responsibility for examining and approving certain items, e.g., the certification basis, any special conditions, exemptions, equivalent safety findings, type inspection authorizations, and the issuance of GACA STC's and this limits the data that the GACA-DER can approve. Appendix 4 of this Airworthiness Guide provides a listing of limitations on GACA-DER functions which would more than likely be reserved for GACA S&ER approval but could be delegated to a GACA-DER. In addition, the following items are required to be approved by the GACA S&ER:

• Interpretation of GACA/FARs:

Whenever any question arises regarding interpretation of a GACA/FARs or the use of new or unconventional materials and processes, the GACA-DER shall consult with GACA-S&ER personnel. The GACA-DER shall not make an interpretation of a regulation. In general, the GACA-DER should be guided by existing policies, procedures, specifications, processes, standards, etc. The GACA-DER must consult with the GACA S&ER prior to departure from existing procedures in making findings of compliance.

• Test Plans:

A GACA-DER cannot approve test plans unless specifically delegated to do so by the GACA S&ER on a case-by-case basis. However, the GACA-DER should normally recommend approval in the submittal to the GACA S&ER. Acoustical GACA-DER's may only recommend approval of test plans and final noise certification compliance reports.

AFM Data:

Specific authorization is required to examine and approve related or special data on reports such as loading schedules or devices, weight and balance reports, equipment lists, and/or certain airplane flight manual revisions, etc.

• Determination of Major/Minor Modifications:

The decision as to whether a change to a type design is major or minor, as defined in GACA/FAR part 21, section, 21.93, should be reviewed with the GACA S&ER if the decision is controversial or if the GACA-DER needs guidance. Major and minor



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design changes to TSO articles are defined in GACA/FAR part 21, section 21.611.

Impact of Major Modifications on Certification Programs: The extent and effect of a major modification shall be discussed with the GACA S&ER to determine if original design requirements (airworthiness regulations, basic load criteria, and test results) still apply, if the original application for type certificate will be affected, and if additional analyses, flight tests, ground tests, or ground inspections are necessary.

• Airworthiness Directives:

Prior to the establishment of an unsafe condition by the GACA-S&ER, a GACA-DER may approve a service bulletin. After establishment of an unsafe condition by the GACA S&ER, a service bulletin related to the unsafe condition and alternate means of compliance must be approved by the GACA S&ER.

Software Plans:

Normally, the plan for software aspects of certification and accomplishment summary should be reserved for approval by the GACA S&ER.



4 GACA DER APPLICATION PROCEDURES

4.1 General

This chapter addresses application procedures for both GACA DER (Domestic) and (Foreign).

4.2 GACA-DER (Domestic)

This section addresses GACA-DER application procedures from qualified individuals who are residents of the Kingdom of Saudi Arabia. A non-Saudi DER will be appointed for a limited period and subject to the Organization providing a name of a Saudi engineer who is being developed to replace the non-Saudi DER.

4.2.1 Eligibility Requirements

4.2.1.1 Residency Status

Applicants for GACA-DER (Domestic) must be either:

- a) a Saudi national possessing a Nationality Identification document, or
- b) a non-Saudi national possessing a valid Iqama and Passport.

4.2.2 General

Applicants for GACA-DER (Domestic) must:

- a) Be able to read, write, speak and understand the English language;
- b) Be permitted by the laws of the Kingdom of Saudi Arabia to practice engineering in the Kingdom of Saudi Arabia;
- c) Hold an engineering degree granted by a college or university of recognized standing;
- d) Have at least eight years of progressively more responsible aeronautical, mechanical, civil, electrical or general engineering experience, or satisfactory combinations thereof as appropriate to the designations sought. An applicant may apply for credit of up to four years maximum for the successful completion of his engineering degree to meet the eight-year experience requirement;
- e) Have at least one year of experience in a direct working relationship with the GACA S&ER in which the applicant was continuously and actively engaged in the processing of engineering work for GACA approval of the type in which the applicant is seeking appointment. The experience in direct contact with the GACA S&ER, which may be part of the eight year experience requirement, must have occurred during the last three years prior to the application for GACA-DER appointment.
- f) Have completed an Airworthiness Certification Course.
- g) Have a thorough working knowledge of the pertinent regulations (e.g. GACA/FAR Parts 1, 21, 23, 25, 27, 29, 33, 34, 43, 91, 121, 135, 145);
- h) Have been in a responsible position in connection with the type of work for which the applicant is to be designated and be entirely cognizant of related technical requirements and problems related to civil aircraft approval, or have otherwise demonstrated suitability for the designation; and

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i) Possess integrity, sound judgment and a cooperative attitude.

4.2.3 Structural GACA DER

An applicant for a Structural GACA-DER with a delegated function of **fatigue analysis** shall, in addition to the general eligibility requirements, possess the following:

- a) As education:
 - a degree in Engineering Mechanics, Aerospace/Aeronautical Engineering, Mechanical Engineering or Civil Engineering; and
 - a specialized course in fatigue analysis.
- b) As experience:
 - More than two years of experience in airframe stress analysis performing as the principal investigator and responsible for results and conclusions within the last ten years prior to appointment.

An applicant for a Structural GACA-DER with a delegated function of **damage tolerance evaluation** shall, in addition to the general eligibility requirements, possess the following:

- a) As education:
 - a degree in Engineering Mechanics, Aerospace/Aeronautical Engineering, Mechanical Engineering or Civil Engineering; and
 - a specialized course in fracture mechanics.
- b) As experience:
 - More than two years of experience in damage tolerance analysis performing as the principal investigator and responsible for results and conclusions within the last ten years prior to appointment.

4.2.4 Flight Test Pilot GACA-DER

Flight test pilot GACA DERs shall, in addition to the general eligibility requirements, possess the following:

- a) Hold a commercial pilot's certificate with an instrument rating, and be qualified in aircraft of the same category and class and similar in design to that in which the applicant will be conducting tests;
- b) Have logged a minimum of 2,000 pilot-in-command (PIC) flying hours (1,000 hours for helicopters) of which at least 100 hours have been logged within the past 12 months; and
- c) Have logged a minimum of 100 hours of appropriate experimental flight testing experience in the same certification category and in a similar type of aircraft for which the GACA-DER appointment is requested.

NOTE: The requirements of b) and c) are initial requirements, not annual requirements. If GACA S&ER delegation is based on other CAA delegation then this requirement can be waived.

4.2.5 Application

All the steps in the procedure described herein are to be followed in the sequence presented, unless otherwise indicated by the GACA-S&ER. The procedure may be terminated at any step in the process. The following steps apply:

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- a) The Organization determines the need for GACA-DER (Applicant) involvement in a specific project;
- b) The Organization nominates the appropriate person for GACA-S&ER consideration, after ensuring that the person meets the GACA-S&ER eligibility requirements;
- c) The nominated person ensures that he/she has access to the necessary facilities, data, documentation, and resources to perform the activities sought;
- d) The Organization submits the following documents to GACA-S&ER;
 - I. a completed GACA S&ER form 8110-14, Statement of Qualifications (Appendix 1, Figure 2), signed by the applicant, along with supporting documentation (including an accurate record of the applicant's relevant qualifications and experience); and,
 - II. a completed DER Application Evaluation Form as per FAAO 8100.8 (), Appendix A, Application Package, Figure A-3.
 - III. A complete Delegated Functions and Authorized Areas as per FAA 8110.37 () Appendix B, Figure X as applicable specialty.

4.3 GACA-DER (Foreign)

This section addresses application procedures for GACA-DER from individuals who hold an engineering delegation from the FAA or other GACA recognized CAA and who are not residents of the Kingdom of Saudi Arabia.

4.3.1 Eligibility Requirements

4.3.1.1 General

The GACA S&ER will only accept applications for a GACA DER (Foreign) from persons holding a current FAA DER Certificate of Authority or an equivalent authority issued by a GACA recognized CAA. An FAA DER <u>Candidate</u> is not eligible to apply for a GACA-DER Certificate of Authority.

Information Note:

For the purpose of this AG, GACA will recognize only those CAAs with which the U.S. have a Bilateral Aviation Safety Agreement and associated Implementation Procedures (or equivalent bilateral agreement) containing appropriate provisions for the mutual recognition of design approval delegation systems.

4.3.1.2 Other Requirements

The applicant's DER Certificate of Authority issued by the FAA or a GACA recognized CAA must be relevant to the activities sought. A GACA DER Certificate of Authority will not be endorsed with categories, designations, authorized areas and delegated functions which exceed those shown on their current FAA DER Certificate of Authority and related letter of authorization.



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The applicant must be able to demonstrate his/her knowledge of the current GACA/FAR regulations and related policies and procedures, and of their Organization's policies and procedures relevant to design change approval.

4.3.2 Application

All the steps in the procedure described herein are to be followed in the sequence presented, unless otherwise indicated by the GACA S&ER. The procedure may be terminated at any step in the process. The following steps apply:

- a) the Organization determines the need for GACA-DER (Applicant) involvement in a specific project;
- b) the Organization nominates the appropriate person for GACA S&ER consideration, after ensuring that the person meets the GACA-S&ER eligibility requirements;
- c) the nominated person ensures that he/she has access to the necessary facilities, data, documentation, and resources to perform the activities sought;
- d) the Organization submits the following documents to GACA S&ER;
 - I. A completed GACA S&ER form 8110-14, Statement of Qualifications (Appendix 1, Figure 2), signed by the applicant, along with supporting documentation (including an accurate record of the applicant's relevant qualifications and experience); and,
 - II. Evidence of the applicant's current FAA DER delegation including copies of the current FAA Certificate of Authorization (or equivalent documentation for other GACA recognized CAAs).



5 GACA-DER APPOINTMENT AND RENEWAL PROCEDURES

5.1 General

5.1.1 Application Evaluation

The GACA S&ER receives and evaluates the applicant's submission. The GACA S&ER initiates administrative action which includes the opening of a GACA-DER file and the assignment of a GACA-DER number from the GACA-DER number register in accordance with paragraph 5.3. Evaluations of the applicant's technical capability shall include interviews, tests, portfolio reviews and any other means necessary to establish acceptability to be GACA-DER. Appendix 1 of FAAO 8100.8(), Designee Management Handbook, provides additional guidance in this area.

5.1.2 Interview

If required, the GACA-S&ER may interview GACA-DER applicants to assess his/her eligibility to be a GACA DER and also provide orientation on GACA S&ER organizational structure, regulatory framework and certification procedures.

5.2 GACA-DER Designation Numbers

Each GACA-DER shall be assigned a unique designation number at time of their first and subsequent appointment as GACA-DER in the format **GACA/DER-yynnnx(-z)** (e.g. GACA/DER-01025F-1) where:

- yy=year (Gregorian) of first appointment
- nnn=DER counter of first appointment beginning at 1 in each year, reset to 1 at beginning of each year
- x=F for foreign GACA-DER or D for domestic GACA-DER or C for Candidate DER
- z=counter for each subsequent renewal

5.3 Certificate of Authority

The GACA-DER Certificate of Authority shall be prepared using GACA S&ER Form 8110-25-2. The Certificate of Authority shall state the GACA-DER category, designation number, the privileges which the person concerned is authorized to perform, limitations of authority and an issue and expiration date.

5.4 Letter of Appointment

The GACA S&ER shall notify the GACA-DER applicant, in writing and with a copy to the nominating Organization, of its decision regarding GACA-DER appointment within fifteen (15) working days following the date of receipt from the applicant/Organization of <u>all</u> the information required as per Chapter 4. The letter of appointment is to include the GACA-DER Certificate of Authority.

A sample Letter of Appointment is found in Appendix 2.

5.5 Letter of Renewal

The GACA S&ER shall notify the GACA-DER applicant, in writing and with a copy to the nominating Organization, of its decision regarding GACA-DER renewal within fifteen (15)

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working days following the date of receipt from the Organization of all the information required as per Chapter 4. The notification is to include the GACA-DER renewal letter and GACA-DER Certificate of Authority.

A sample Letter of Renewal is found in Appendix 3.

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6 GACA-DER RESPONSIBILITIES AND INDEMNIFICATION

6.1 General

Once appointed, each GACA-DER has the following responsibilities:

- a) The GACA-DER may only perform those functions that are stated on his/her GACA S&ER Certificate of Authority and only while the certificate remains valid. The holder must comply with the limitations of their appointment as specified in their Certificate of Authority and this Airworthiness Guide;
- b) A GACA-DER Certificate of Authority does not constitute an authorization for the GACA-DER to work on a particular project. Each project must be authorized on a case-by-case basis in accordance with the requirements of Airworthiness Guide (AG) 7, Alterations and Repairs;
- c) The GACA-DER must ensure that all documentation pertaining to a specific project (including GACA S&ER form 8110-3 (Appendix 1, Figure 1)) contains the GACA S&ER project authorization number and the GACA-DER designation number;
- d) The GACA DER must make findings of compliance against the GACA/FARs, using the associated policies, procedures and guidance material;
- e) At the completion of each project, the GACA-DER must supply the GACA S&ER with a completed GACA S&ER form 8110-3 (Appendix 1, Figure 1) and any other required reports and data in a form and manner acceptable to the GACA S&ER;
- f) The GACA-DER must consult with GACA S&ER prior to departure from standard procedures in making findings of compliance; and
- g) The GACA-DER shall not make interpretations of a regulation without GACA S&ER concurrence.

6.2 Indemnification

A GACA-DER, while acting pursuant to a GACA-DER appointment, is a representative of the GACA S&ER for specific functions. A GACA-DER is not an employee of the GACA and is therefore fully liable for his/her work performed and decisions made as a GACA-DER. The GACA will not indemnify GACA-DERs against personal civil liability incurred by reason of any act or omission within the scope of their employment or duties as a GACA-DER.



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7 CONTINUED VALIDITY OF GACA-DER CERTIFICATE OF AUTHORITY

7.1 General

Unless terminated by the GACA S&ER, a GACA-DER Certificate of Authority becomes invalid as a result of any of the following:

- a) when the validation date expires;
- b) upon the written request from the GACA DER;
- c) upon a GACA-DER appointed in the Dual or Company category ceasing to be employed by the company who sponsored their delegation; or
- d) Upon a non-Saudi national GACA DER (Domestic) no longer possessing a valid Igama.

7.2 Certificate Validation Date

Unless terminated by the GACA S&ER, a GACA-DER Certificate of Authority remains valid for the period as stated thereon. The validity period shall be established based on the following criteria:

7.2.1 GACA-DER (Domestic)

Validity periods shall be one Hegira year from date of appointment.

7.2.2 GACA-DER (Foreign)

Validity period shall not exceed validity period on the foreign DER authorization on which the GACA DER authority was based and in no case shall it exceed 2 years.

7.2.3 GACA-DER Candidate

Validity periods shall be established on a case-by-case basis but shall not exceed three Hegira years from date of appointment.

7.3 Renewal Procedures

GACA-DER may apply for renewal of his/her GACA-DER Certificate of Authority within 15 days of its expiry date or when changes in scope of approval are sought. Applications for renewals and changes in scope of approval must follow the same procedures as described in Chapter 4 for initial GACA-DER appointment. GACA-DER renewal procedures are described in Chapter



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8 TERMINATION OF GACA-DER CERTIFICATE OF AUTHORITY

8.1 Reasons to Terminate

The GACA-DER Certificate of Authority may be terminated for any of the following reasons:

- a) subsequent to a finding by the GACA S&ER that the GACA-DER is not performing his/her duties in accordance with their Certificate of Authority;
- b) subsequent to a finding by the GACA S&ER that the GACA-DER has not had sufficient activity to warrant continuance of the designation; or
- c) for any other reason that the GACA S&ER considers appropriate.

8.2 Termination Procedures

The procedures applicable to GACA-DERs for giving notice of termination or non-renewal are as follows:

- Company Misconduct/Insufficient Activity. If the termination or non-renewal is based on insufficient activity at the company (production approval holder, supplier, or engineering organization), or on GACA-DER misconduct condoned by the company, notice will be given only to the company;
- b) Consultant GACA-DER misconduct. If the termination or nonrenewal is based on misconduct of a consultant GACA-DER, notice will be given to the GACA-DER;
- c) Company GACA-DER Misconduct. If the termination or non-renewal of a company GACA DER is based on misconduct not condoned by the company, notice will be given to the GACA-DER and the company; and
- d) By Request. If the designation is terminated or not renewed at the request of the GACA-DER's company, the procedures concerning reconsideration of the termination/non-renewal do not apply. The decision to employ a GACA-DER is entirely within the discretion of the company or individual.

8.2.1 Written Notification

The company and/or an individual GACA-DER shall be notified in writing of the reason(s) for any decision to terminate or not renew. The notification should be sent 30 days in advance of the intended effective date and should contain the reasons to terminate or not renew being as specific as possible, and cite handbook guidelines. Any unacceptable conduct should be cited.

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9 GACA-DER OVERSIGHT

9.1 General

Every interaction between the GACA-DER and the GACA S&ER constitutes oversight of the GACA DER by the GACA-S&ER. Interactions may be in the form of data review or may be in the form of personal contact (e.g. telephone calls, visits, etc.). The GACA S&ER in performing its regulatory obligations shall use the interactions to evaluate the compliance of the GACA-DER with the GACA/FAR requirements and this Airworthiness Guide. The results of these interactions will determine the continued validity of those certificates.

At least once annually, the DER must submit GACA-S&ER Form 8110-29 (Appendix 1, Figure 4). The information provided on the tracking form is based on interactions and activity during the evaluation period. The eight key interactions that the DER must report on Form 8110-29 are defined below in paragraph 9.2.

At least once annually, the evaluator must conduct a DER performance evaluation and complete GACA-S&ER Form 8110-30 (Appendix 1, Figure 5). The performance elements are defined below in paragraph 9.3. To support the completion of Form 8110-30, the evaluator should review prior years' submittals from Form 8110-29 and Form 8110-30 to determine that there is no adverse trend to be addressed. The evaluation is based on interactions and activity during the evaluation period and the answers provided by the DER on eight key interactions on Form 8110-29. The evaluator must determine and initiate appropriate corrective action (for example, additional training or counseling) if the designee fails to demonstrate acceptable methods and practices. Within the next annual review of the designee's performance, the evaluator will conduct a follow-up session to determine if the completed corrective action is acceptable. If the designee's performance remains unsatisfactory, the evaluator will discuss possible termination with the Director of Airworthiness.

9.2 Interactions

The key interactions of GACA-DER oversight are:

- a) development of certification plans/compliance checklists;
- b) identification and resolution of significant technical issues;
- c) review and approval of compliance data;
- d) involvement in project management/administration;
- e) review and approval of repair/alteration data.
- f) investigation and resolution of significant service difficulties;
- g) participation in technical exchanges (e.g. meetings, etc. on general technical subjects); and
- h) Participation in GACA S&ER (or CAA) sponsored training/seminars.

9.3 Evaluations

Evaluations may not necessarily involve a detailed examination of the GACA-DER's performance during the review period. The evaluator may rely on as many or as few sources as believed necessary to make assessments. Examples of sources that the evaluator may use include



personal experience, performance or conduct notes, input from other GACA S&ER (or FAA employees for GACA-DER (Foreign)), and review of GACA-DER submittals.

The evaluation items of GACA-DER performance shall include the following:

- a) Activity Level;
- b) Direct GACA contact.
- c) DER/GACA Interaction Tracking form.
- d) Application of regulations, policy, and guidance;
- e) Adherence to GACA-DER procedures. The GACA-DER must follow the GACA-DER Guidance Handbook (this AG) and other policy documents when performing his or her GACA-DER functions. It should be shown that the GACA-DER does not deviate from these procedures for non-performance related issues, such that the GACA-DER is not deceptive nor displays any artificiality or shallowness of any kind;
- f) Integrity, sound judgment, and cooperative attitude. The GACA-DER must be honest, complete and forthcoming with information in all dealings with the GACA;
- g) Technical competence in area of appointment. The GACA-DER's technical work and interaction with the GACA must include appropriate compliance findings. When evaluating the above elements, the GACA evaluator should show that the GACA-DER was able to act independently and impartially. This is based on an analysis of how well the GACA-DER is able to separate his or her internal company functions and the ability to adequately exercise his or her GACA-DER authority;
- h) Leniency of Compliance Findings. A review that established a GACA-DER is not submitting technically complete work products for simple certification efforts that were easily achieved by that GACA-DER on past projects. At the same time, the GACA engineer knows that the GACA-DER is technically competent. During a typical interaction such as a technical meeting or a phone conversation, it becomes evident that the GACA-DER is not supporting well-established compliance guidelines during a certification program;
- i) Attendance at required training;
- j) Ability to communicate clearly;
- k) Quality of submittals;
- 1) Timely identification of significant issues; and
- m) Timely submittal of data.

9.3.1 Conflict of Interest

Specific evaluations should be made to ensure the integrity of the GACA-DER is not undermined by conflicts of interest. The risk of conflict of interest increases as a GACA-DER in the Company Category takes on additional responsibilities and rises to an "executive" level within the company, where the primary job duties are schedule-driven and devoted to the output of the company's whole saleable products. Additionally, a GACA-DER in the Consultant Category who forms a company that applies for certificates and other approvals goes beyond a purely consulting function. Hence, the GACA S&ER should increase surveillance in performance evaluations for these GACA-DERs.



9.4 Corrective Actions

The purpose of the evaluation is to establish that the GACA-DER is performing at the satisfactory level, or to take corrective action if this is not the case.

9.4.1 Termination

If the GACA S&ER evaluator believes the GACA-DER is not performing at a satisfactory level in a number of areas and/or over a number of years, the evaluator shall recommend termination in accordance with Chapter 8.

9.4.2 Immediate Action

In any case where a GACA-DER is suspected of fraud or other activity for which emergency action is necessary to ensure safety, the GACA S&ER will immediately direct the GACA-DER to cease all further certification activity pending GACA S&ER investigation of the matter. Following a finding of a fraudulent or unsafe activity, the GACA S&ER shall initiate termination action and advise the CAA in the case of GACA-DER (Foreign).

9.4.3 Counseling

If GACA DER performance is not satisfactory but termination is not warranted, the GACA-DER evaluator and/or advisor must counsel the GACA-DER concerning the performance deficiencies.

9.5 Evaluation Records

Evaluations and records of counseling or other corrective actions should be documented by the GACA S&ER evaluator and the records placed on the GACA-DER file.



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10 APPENDICES

- 10.1 Appendix 1 Related GACA S&ER Forms
- 10.2 Appendix 2 Letter of GACA-DER Appointment Sample
- 10.3 Appendix 3 Letter of GACA-DER Renewal Sample
- **10.4 Appendix 4 Limitations on GACA-DER Functions**



APPENDIX 1 Figure 1 GACA S&ER Form 8110-3, Statement of Compliance

والتراخيص الإقتصادية Safety & Economic Re			الميئة العامة للطيران المدنج eneral Authority of Civil Aviation		
STATEMENT OF (COMPLIANCE WITH	AIRWORTHINESS STANDARDS	1.DATE		
	AIRCRAFT OR	AIRCRAFT COMPONENT IDENTIFICAT	ION		
2. MAKE:	3. MODEL:	4. TYPE (Airplane, Radio, Helicopter, etc)	5. NAME OF APPLICANT		
		LIST OF DATA			
6. IDENTIFICATION		7. TITLE			
8. PURPOSE OF DATA:					
9. APPLICABLE REQUIREMENTS	S: (List specific section)				
10. CERTIFICATION: Under Authority vested by direction of the GACA-S&ER and in accordance with conditions and limitations of appointment under GACA Part 183, data listed above and on attached sheets numbered have been submitted in accordance with established procedures and found to comply with applicable requirements of the GACA Regulations. I (We) Therefore:- [] RECOMMEND APPROVAL OF THESE DATA [] APPROVE THESE DATA					
11. SIGNATURES	OF DER(S)	12. DESIGNATION NUMBER	13. CLASSIFICATION(S)		

GACA - S&ER 8110-3



APPENDIX 1 Figure 2 GACA S&ER Form 8110-14, Statement of Qualifications

الهيئة العامة للطيران المدني الإقتصادية Safety & Economic Regulation General Authority of Civil Aviation									
	STATEMENT OF QUALIFICATION					3. NATIONALITY:			
		(DAR-DE			4. ID NUMB	BER:			
INSTRUCTIONS:	Print or Type all e	ntries except Signa	ature		5. DATE OF	F BIRTH:			
1.NAME OF APP	LICANT or ORGA	NIZATION:		2. BUSINES	2. BUSINESS ADDRESS:				
Phone:		Ema	ail:			Fax:			
6. DESIGNATION 1 DESIGNATED			[] STRUCTURAL ENG	INCEDING		I TENGINE I	ENGINEERING		
REPRESENTATI									
			[]POWER PLANT EN				LER ENGINEERING		
			[]SYSTEM & EQUIPM		NG	[]FLIGHT			
			[] ACOUSTICAL ENG			[]FLIGHT			
	AIRWORTHINESS	REPRESENTAT	[]MANUFACTURING	FUNCTIONS			parate application may		
(DAR)			[] MAINTENANCE FU	NCTIONS			itted for each Function i.e. turing, Maintenance.		
DAR APPLICANT	TS SHALL IDENTI	FY SPECIFIC FUI	NCTIONS, FOR WHICH	DESIGNATION IS	SOUGHT:				
7. EXPERIENCE	E RESUME FOR	NUMBER OF Y	EARS PERTINENT TO	DESIGNATIO	N SOUGHT	(Use additional	sheets if necessary)		
PERIOD)						TO THE SAME PARTY.		
FROM	то		EMPLOYER'S NA	ME	POSITION TITLE AND DUTIES				
		HIGH SCHOOL	OLEVEL AND ABOV	EPERTINENT T	O DESIGNA	TION SOUGHT	T		
PE	RIOD	NAME	E OF SCHOOL	CURRICUI	LUM OR STUDY PROGRAM DEGREE RECEIVE				
FROM	TO	Terunic	01 0011002	CONTROCE	om ok orobi	T IXOOIO IIII	DEGREE RESERVED		
	ERTIFICATES N		TINENT TO DESIGNA	TION SOUGHT			ATE EAGU DATING IGGUED		
TYPE		C	ERTIFICATE NUMBER		RATING	D	ATE EACH RATING ISSUED		
			completed for DER on						
I RECOMMEND THE PERSON IDENTIFIED ABOVE TO BE APPOINTED AS DE			_	GINEERING I	REPRESENTATI				
PRIMARY BUSINESS:				SIGNATURE:			DATE:		
11: LOCATION WHERE DESIGNATED FUNCTIONS WILL BE PERFORI ADDRESS:				DKWED	TELEP	HONE NO:			
12. CERTIFICA	,	at the above stati		best of my know	rledge and th	hat I am familiar	r with GACA Regulations		
SIGNATURE:			,	DATE:					

GACA - S&ER 8110-14



GACA S&ER Form 8110-14, Statement of Qualifications Continuation Sheet

13. ACTION RECORD (FOR GACA USE ONLY)									
DESIGNEE'S NAME/ORGANIZATION NAME:					DESIGNATION NUMBER:				
DATE APPLICANT INTERVIEWED:					DATE CERTIFICATE	OE AII	TUODITY EYNIDES.		
					DATE CERTIFICATE	UF AU	THURITT EXPIRES:		
DATE REFERENCES VERIFIED:									
DATE APPLICAN	T NOTIFIED:				SIGNATURE OF APP	ROVIN	G AUTHORITY:		
[]A	CCEPTED	[] REJI	ECTED						
14. RECORD OF			LIATRU	OTUDAL ENGINEEDI	110		HOINE ENGINEEDING		
[]DESIGNATED E REPRESENTAT				CTURAL ENGINEERI			NGINE ENGINEERING		
TREFFICOEINT/	TIVE (DEIV)			R PLANT ENGINEER			ROPELLER ENGINEERII	NG	
				EQUIPMENT ENGIN			LIGHT ANALYST		
				ISTICAL ENGINEERIN			LIGHT TEST PILOT		
[] DESIGNATED . REPRESENTA	AIRWORTHINESS			FACTURING FUNCT		NOT			
REFRESENTA	(IIVE (DAK)		[]MAIN]	INTENANCE FUNCTIONS			A separate approval is required For each discipline.		
ELINCTIONS ALL	ITUODISED //don	tifu enocific fi	unctions a	uthorized, including	any limitation\				
FUNCTIONS AU	THORISED (Ideni	ury specific n	uricuoris at	uulonzea, including	arry miniation				
15. RECORD OF	SUBSEQUENT	ACTIONS		1					
ANNUAL	CHANGE OF	CANCEL	LATION		ND TELEPHONE NUMBER CHANGED)	R (IF	DATE STATUS OF DESIGNEE CHANGED	GACA OFFICIAL	
RENEWAL	ADDRESS								

GACA - S&ER 8110-14



APPENDIX 1 Figure 3 GACA S&ER Form 8110-25-2, Certificate of Authority (GACA-DER)



CERTIFICATE OF AUTHORITY (GACA-DER)

DESIGNATION NUMBER: _____

This certificate is issued to

upon finding that this individual complies in all respect with the requirements of the General Authority of Civil Aviation regulations relating to the appointment of GACA Designated Engineering Representative (GACA-DER) and placing special trust and confidence in the integrity, diligent, and discretion of this individual who has been found to have knowledge, skill, experience, interest and impartial judgment to merit special public responsibility. I hereby designate as GACA Designated Engineering Representative with authorization to act in accordance with the regulations and practices describe.

CATEGOR	Y:
SCOPE OF	AUTHORITY GACAR Part(s):
DELEGATE	ED FUNCTIONS:
SPECIAL [DELEGATIONS/AUTHORIZATIONS:
LIMITATIO	ONS:
GAC	GACA-DER activities shall be carried out in accordance with GACA/FAR Part 183.29, A Airworthiness Guide (AG) -4 and GACA Designated Engineering Representative ance Handbook, as amended.
This certi	ficate unless cancelled, suspended, or revoked, shall continue in effect until _
Date Issued:	Date Reissued: ——————
	BY THE DIRECTION OF THE PRESIDENT OF THE GENERAL AUTHORITY OF CIVIL AVIATION
	VICE PRESIDENT SAFETY AND ECONOMIC REGULATIONS GENERAL AUTHORITY OF CIVIL AVIATION KINGDOM OF SAUDI ARABIA
GACA - S8	THIS CERTIFICATE IS NOT TRANSFERABLE.

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APPENDIX 1 Figure 4 GACA S&ER Form 8110-29, DER/GACA Interaction Tracking

	السلامة والتراخي omic Regulation			الميئة العامة للطيران المدني General Authority of Civil Aviation			
	DER/GACA IN	TERACTION T	RACK	ING FORM			
Name:			DER#:				
Tel. #:			Fax #:				
E-Mail:							
Address:							
Designation(s):							
Activity:	From:	То	:				
GACA Evaluator:							
PERSONNEL IN T (AIRCRAFT, ENGI SPECIFIC CONTR	PROVIDE A BRIEF SUMMARY OF YOUR ACTIVITIES WHICH REQUIRED INTERACTON WITH GACA PERSONNEL IN THE FOLLOWING KEY AREAS. INCLUDE PROJECT DESCRIPTIONS, PRODUCT MODELS (AIRCRAFT, ENGINES, PROPELLER, EQUIPMENT, ETC.), AND/OR GACA PROJECT NUMBERS, YOUR SPECIFIC CONTRIBUTIONS TO EACH APPLICABLE INTERACTION AND YOUR PRIMARY INDIVIDUAL GACA ENGINEERING CONTACTS.						
1. Development of o	certification plans/complian	ice checklists:					
2. Identification and Conditions, Exemption		echnical issues (issue p	apers, equi	valent safety): (Findings, Special			
3. Review and appro	oval of compliance data:						
4. Involvement in pr	roject management adminis	stration :					
5. Review and appro	oval of repair/alteration data	a including process spe	cification:				
6. Investigation and	l resolution of significant se	ervice difficulties:					
7. Participation in te	echnical exchanges: (meetir	ngs and telecons on gene	ral technical	subjects)			
8. Participation in G	GACA training/seminars:						
DER Signature:				Date			
For GACA USE O	NLY						
[] All required Di	ER evaluation forms com	npleted []	DER rene	ewal processed			
GACA Evaluator Sig	gnature:			Date:			

GACA S&ER 8110-29



APPENDIX 1 Figure 5

GACA S&ER Form 8110-30, DER Performance Evaluation

المينة العامة للطيران المدني الإقتصادية Safety & Economic Regulation General Authority of Civil Aviation									
DER PERFORMANCE EVALUATION FORM									
Name: DER #:									
Tel. #: Fax #:									
Designation(s) (Structures, Systems, Propulsion, Admin. etc.):									
[] Yes [] No EXECUTIVE LEVEL DERS ONLY: Has the DEI delegated functions objectively and independently? (Written	• • • • • • • • • • • • • • • • • • • •	y affected ti	he ability to	perform					
EVALUATION: From:	To:								
GACA Evaluator Name:									
For the above named DER, rate performance in each of the following categories by placing an "X" under column SAT for Satisfactory, column NEEDS IMPR for Needs Improvement, column UNSAT for Unsatisfactory, or column N/OB for Not Observed. For any rating other than Satisfactory, the GACA evaluator is required to contact the DER directly, and to document in the "REMARKS" section how the concern has been or will be resolved. Resolution action may range from a recommendation for non-renewal to an indication that the DER has agreed to work closely with the GACA during the next evaluation period to resolve the concern. Indicate your recommendation for renewal at the bottom of the form above your signature.									
		SAT	NEEDS IMPR	UNSAT	N/OB				
1. ACTIVITY LEVEL		[]	[]	[]	[]				
2. DIRECT GACA CONTACT		[]	[]	[]	[]				
3. DER/ GACA INTERACTION TRACKING FORM		[]	[]	[]	[]				
4. APPLICATION OF REGULATIONS, POLICY, AND GUIDA	NCE	[]	[]	[]	[]				
5. ADHERENCE TO DER PROCEDURES		[]	[]	[]	[]				
6. SHOWS INTEGRITY, SOUND JUDGMENT, COOPERATION	VE ATTITUDE	[]	[]	[]	[]				
7. SHOWS TECHNICAL COMPETENCE IN AREA OF APPOI	NTMENT	[]	[]	[]	[]				
8. ATTENDANCE AT REQUIRED TRAINING		[]	[]	[]	[]				
9. ABILITY TO COMMUNICATE CLEARLY		[]	[]	[]	[]				
10. QUALITY OF SUBMITTALS		[]	[]	[]	[]				
11. TIMELY IDENTIFICATION OF SIGNIFICANT ISSUES		[]	[]	[]	[]				
12. TIMELY SUBMITTAL OF DATA			[]		[]				
REMARKS: (Explain all Needs Impr, Unsat, N/OB evaluations and provide resolution; attach additional pages as required.)									
Recommended Renewal? [] Yes [] No	[] Change author	ization as ı	noted in R	emarks.					
Evaluator Signature:		Date:							
DER Signature (If required):		Date:							

GACA S&ER 8110-30



APPENDIX 2

Sample Letter of Appointment (GACA-DER)

Mr. John Doe 123 Anytown Lane Houston, TX U.S.A. 75000

Subject: GACA DER Appointment

Dear Mr. Doe,

This letter is to serve as notice of your appointment as GACA Designated Engineering Representative (DER) by the GACA &ER in response to an application received from VIP Aviation Incorporated dated February 4, 2013.

Your GACA DER designation number is GACA/DER-01099F.

Details of your appointment including privileges (scope of authority, authorized areas, delegated functions), limitations and validity date are found on the attached Certificate of Authorization. Applications for renewal must be made in accordance with GACA Airworthiness Guide (AG) - 4, GACA-DER Guidance Handbook, as amended.

Please contact your GACA advisor, Mr. Bob Brown at (966 12) 685-5481 should you have questions pertaining to this appointment.

Regards,

Original Signed By

Mohamed Jamil Director of Airworthiness GACA S&ER

cc: Bill Smith, Quality Assurance Manager, VIP Aviation Incorporated



APPENDIX 3

Sample Letter of Renewal (GACA-DER)

Mr. John Doe 123 Anytown Lane Houston, TX U.S.A. 75000

Subject: GACA-DER Renewal

Dear Mr. Doe,

This letter is to serve as notice of your renewal as GACA Designated Engineering Representative (DER) by the GACA-S&ER in response to an application received from VIP Aviation Incorporated dated February 1, 2013.

Your new GACA-DER designation number is GACA/DER-01099F-1.

Details of your appointment including privileges (scope of authority, authorized areas, delegated functions), limitations and validity date are found on the attached Certificate of Authorization. Applications for renewal must be made in accordance with GACA Airworthiness Guide (AG) - 4, GACA-DER Guidance Handbook, as amended.

Please contact your GACA advisor, Mr. Bob Brown at (966 12) 685-5481 should you have questions pertaining to this appointment.

Regards,

Original Signed By

<Mohamed Jamil
Director of Airworthiness
GACA-S&ER

cc: Bill Smith, Quality Assurance Manager, VIP Aviation Incorporated



APPENDIX 4 Limitations on GACA-DER Functions

GENERAL

The following are inherently governmental functions and are to be referred to the GACA S&ER for approval. GACA-DER's may only RECOMMEND these data for approval:

- a) Departures from specific policy and guidance.
- b) New/Unproven technologies.
- c) Equivalent level of safety findings.
- d) Special Conditions.
- e) Exemptions.

The GACA-S&ER may delegate any examination, inspection, and test necessary to the issuance of a certificate. The decision to delegate is influenced by many factors. Some critical factors include the knowledge and expertise of the GACA-S&ER personnel and the potential delegated personnel; the impact of the delegated task on safety; and the political sensitivity of the task. With this in mind, for any given certification program, the GACA-S&ER would more than likely reserve for itself, the approval of the following items.

STRUCTURAL

- a) Approval of test plans.
- b) Basic load reports.
- c) Material and fastener allowable, including fatigue allowable.
- d) Approval of life limits.
- e) Previously unapproved crashworthiness matters.
- f) Emergency evacuation test plans and analysis.
- g) Damage tolerance evaluation methodologies.
- h) Airworthiness limitations section of the instructions for continued airworthiness.
- i) Approval of probability conclusions.
- i) Interior Compliance Inspection.

POWERPLANT

- a) Approval of test plans.
- b) Flight Test results.
- c) Operational procedures and limitations.
- d) System Safety Analyses for New Engine Installations.
- e) Rotorburst Analyses for New Engine Installations
- f) Operational procedures and limitations.
- g) Fire safety hazard analyses.
- h) Powerplant drainage test witnessing.
- Induction system ice protection and installed engine characteristics in icing conditions for new engine installations.
- j) Flammable fluid fire protection compliance inspection.
- k) Fire detector and extinguishing systems and installations.
- l) Software Verification and Validation.
- m) Engine Performance Methodology.

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APPENDIX 4, cont'd

Limitations on GACA-DER Functions

SYSTEMS & EQUIPMENT

- a) Approval of test plans.
- b) New Concepts of System/Equipment Design.
- c) Software.
- d) Plan for Software Aspects of Certification.
- e) Configuration Index.
- f) Accomplishment Summary.
- g) Unconventional Applications of Systems/Equipment.
- h) Schematic Diagram and Probability/Criticality analysis approvals.
- i) Control systems compliance inspection.
- j) Previously unapproved crashworthiness matters.
- k) Interior Compliance Inspection.
- 1) Emergency evacuation test plans and analyses.

ENGINE

- a) Approval of test plans.
- b) Operational procedures and limitations.
- c) Critical rotating parts lifting methodologies.
- d) Installation instructions.
- e) Airworthiness limitation sections.
- f) Repairs to critical engine parts.
- g) Software Verification and Validation.
- h) Engine Emissions.

PROPELLER

- a) Approval of test plans.
- b) Operational limits.
- c) Vibration analysis methods.
- d) Airworthiness limitation sections.
- e) Fatigue allowable and fatigue life.
- f) Loads Reports, particularly vehicle usage spectra.

FLIGHT ANALYST

- a) Approval of test plans.
- b) Overall flight and ground test plans limitations, operating procedures, or sequences.
- c) New methods or principles of testing or presentation of results.
- d) Unusual aircraft flying qualities and aircraft performance.
- e) Aircraft Flight Manuals or revisions, and Flight Manual Supplements.
- f) Flight advances technical design features.
- g) New operational procedures.

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- h) Evaluation of Several STCs on one aircraft.
- i) Spot check certification flight test results.

FLIGHT TEST PILOT

- a) Approval of test plans.
- b) Overall flight and ground test plan limitations, operating procedures, or sequences.
- c) New methods or principles of testing or presentation of results.
- d) Unusual aircraft flying qualities and aircraft performance.
- e) Aircraft Flight Manuals or revisions, and Flight Manual Supplements.
- f) Flight advances technical design features.
- g) New operational procedures.
- h) Evaluation of Several STC's on one aircraft.
- i) Spot check certification flight test results.

ACOUSTICAL

- a) Test witnessing (in accordance with an approved test plan).
- b) Aircraft reference profiles (when based on approved aircraft performance).
- c) Operating limitations.
- d) Final aircraft noise certification levels compliance report approval, unless the noise levels are derived from an FAA approved and applicable noise certification data base utilizing FAA approved processes and FAA approved aircraft performance data.

NOTE: "Safety Analysis" may include but is not limited to the following:

- · Functional Hazard Analysis (FHA)
- · Failure Modes and Effects Analysis (FMEA)
- · Fault Tree Analysis (FTA)
- · Zonal Analysis (ZA)