

**BRAZILIAN SUPPLEMENT**

**TO: FAA 14 CFR 145**

**REPAIR STATION and QUALITY MANUAL**

**AAR AIRCRAFT SERVICES – Lake Charles  
1945 Merganser St.,  
Lake Charles, LA 70615**

**FAA REPAIR STATION No. 3LZR235N**

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**APPROVED BY:**

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**AAR Aircraft Services, Lake Charles**

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## BRAZILIAN RSQM SUPPLEMENT

### SECTION 1 – INTRODUCTION

This supplement provides guidance and clarification of certain issues regarding the maintenance, preventative maintenance, and alteration of aeronautical products certified and operated under Brazilian registry. This guidance is supplemental to the Repair Station & Quality Manual (RSQM) maintained by “AAR Aircraft Services, Lake Charles, (AAR ASL)” as a requirement of regulation United States, Federal Aviation Administration CFR 145. When conflicting issues result between the Federal Aviation Administration Regulations and the RBHA/RBAC, this supplement and the RBHA/RBAC will take precedence over the Federal Aviation Administration Regulations when maintenance services on Brazilian aeronautical products are involved. Revisions on this supplement that falls into the situations described in IS 145-003B, before their incorporation, will be submitted for acceptance by the ANAC and will be sent to the following address:

Agência Nacional de Aviação Civil - ANAC  
Superintendência de Aeronavegabilidade - SAR  
Avenida Presidente Vargas, 850 - 16º Andar  
Centro - Rio de Janeiro - RJ  
CEP 20071-001  
Brasil

**Additionally, copies may be forwarded to: [foreign145@anac.gov.br](mailto:foreign145@anac.gov.br).**

This supplement will be controlled by the Director of Maintenance and posted on the ASL Technical Library (internal intranet) for all employees. Hard copy manuals can be requested and will be provided to ANAC.

### SECTION 2 – ANNUAL MAINTENANCE INSPECTION (IAM)

In the event a customer request is submitted for an Annual Maintenance Inspection – IAM (RBHA 91.409) on an aircraft, reference shall be made to RBHA 91.403. The Chief Inspector or Quality Control Inspector designee will review the aircraft logbooks from previous IAM and list any overdue inspections, AD, and life limited components and inform the operator. The operator will then approve or disapprove the maintenance required. If the operator “Does Not Approve” the Chief Inspector or the Quality Control Inspector designee will fill out the DIAM Form with the “REPROVADA” box checked off and send to the ANAC.

All airworthiness directives issued by the state of design for the aeronautical product IAM audit shall be complied with, in addition to any Brazilian issued airworthiness directives.

### SECTION 3 - APPROVAL TO RETURN TO SERVICE (APRS)

AAR Aircraft Services, Lake Charles inspection personnel who are authorized to return Brazilian aeronautical products to service must be certificated under (*FAA CFR 65 Certification Airmen other than Flight Crewmembers*). The Quality Assurance Manager is responsible to maintain these personnel, which shall be presented to ANAC upon request. All technical personnel assigned to return to service a Brazilian aeronautical product must be familiarized with the RBHA/RBAC and IAC/IS, as applicable, and the procedures of this Supplement.

Prior to return to service, the Quality Assurance Inspector will perform an audit of the Work Order package for the aircraft to determine that all work was performed in accordance with this inspection system required by (*FAA CFR 43.*) and RBAC 145.211. In compliance with the requirements of RBAC 39 Airworthiness Directives and IS 39-001, during maintenance on Brazilian Aeronautical products the related Brazilian AD status must be checked in the following link:

**SECTION 3 - APPROVAL TO RETURN TO SERVICE (APRS)**

(<http://www.anac.gov.br/certificacao/DA/DAE.asp>) and State of Design Airworthiness Directives relative to the work performed. Also the applicable AD issued by the State responsible for type design of the product being maintained must be checked. Brazilian customer can ask for the accomplishment of any AD they want, for example, EASA or FAA AD.

The return to service process regarding Brazilian aeronautical products shall be in compliance with (*FAA CFR Part 43 Maintenance, Preventive Maintenance, Rebuilding and Alteration*) and RBAC 43, as appropriate to the work accomplished and any special requirements of the Brazilian Operator.

Additionally, for the return to service the issuance of a Form SEGV00 003 is obligatory (as a primary maintenance record) and it shall be filled out and supplied in accordance with IS 43.9-002A requirements. This form cannot be substituted for its equivalent in accordance with FAA. The Form SEGV00 003 is also required when the maintained part is alone and belongs to a Brazilian registry aircraft. The Form SEGV00 003 is not required to be issued to record a component maintenance service performed when its aircraft is in house for a major service.

The maintenance record entry shall include the following documentation:

- a) A copy of the Work Order including the signature of the Technician who performed the work, as well as the Inspector's stamp who was responsible for the inspection of the maintenance accomplished.
- b) A signed maintenance release statement with the Certified Maintenance Organization number along with the ANAC Certification number. In case of APRS of aircraft, the maintenance release must include the following statement: "The aircraft described was repaired and inspected in accordance with the current RBHA/RBAC and is approved for return to service."

**SECTION 4 – RECORD KEEPING**

A copy of each Work Order with all attached supplementary forms and Part Certifications shall be maintained in the Maintenance Organization's records section for a period of 5 (five) years in accordance with the applicable regulations of the ANAC.

**SECTION 5 – MAJOR REPAIR AND ALTERATIONS**

Major repairs or alterations (defined in IS 43.9-001A) performed by this Repair Station Organization to any Brazilian aeronautical products shall be accomplished in accordance with the manufacturer's approved data or in accordance with any data approved by state of design civil aviation authority or ANAC. This service shall be recorded ANAC Form SEGV00 001, that will be filled out in accordance with IS 43.9-001A requirements. It cannot be substituted for its equivalent in accordance with the FAA.

Major Alterations performed by AAR ASL to any Brazilian registered aircraft (or related aeronautical product) shall be accomplished in accordance with data previously approved in Brazil. This documentation shall be referenced on ANAC Form F-400-04 (SEGV00 001).

For an STC that is not approved by Brazilian Authority, before the installation on a Brazilian aircraft, the STC holder must apply for a Brazilian STC issued by ANAC.

(See <http://www.anac.gov.br/certificacao/CHST/CHSTE.asp>) following the procedures state in the IS 21-010, IS 21-004, IS 43.9-001 for their latest revisions.

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### SECTION 6 – MALFUNCTION AND DEFECT REPORT

If a defect or malfunction is detected during the maintenance and inspection process that could result in an imminent hazard to the safety of flight for the aircraft involved, the ANAC shall be notified within 72 (seventy- two) hours after the discovery of the defect RBAC 145.221(a) using the internet address <http://www2.anac.gov.br/anac/sdr.asp>. The Chief Inspector is responsible for preparing and submitting this report.

### SECTION 7 – TECHNICAL DOCUMENTATION

AAR Aircraft Services Lake Charles shall receive from the customer copies of the aircraft manuals, the customer will maintain these manuals in a current revision status at all times and provide AAR ASL revisions to the manuals as available. AAR ASL will not perform any maintenance on the customer's aircraft until the technical data is available. The technical data provided will be checked by AAR ASL through the website listed below. (IS 145.109-001).

The website [www.anac.gov.br](http://www.anac.gov.br) will be checked monthly for current information.

### SECTION 8 – MANUAL PROCEDURES & REGULATIONS TRAINING

In order to maintain compliance with Brazilian Certification Regulations, properly qualified individuals shall conduct recurrent training. Training on the Brazilian IPM Supplement, IPM, RBHA/RBACs, and IAC/IS's shall be conducted on a continuous basis throughout each calendar year. A completed copy of the Technician Experience Record shall be maintained on file in the employees training record in the office of the Quality Assurance Manager. A completed copy of these records must also be available to the ANAC.

### SECTION 9 – MANDATORY REPORTS

AAR ASL reports to the ANAC on a quarterly basis, all maintenance performed on Brazilian registered aircraft. This report shall include the name of the customer, aircraft model and serial number and the scope of the work performed (RBAC 145.221-l(a)).

AAR ASL shall supply the ANAC on a quarterly basis a List of the Technical Personnel assigned to return to service a Brazilian aeronautical product. This shall be accomplished regardless of any personnel changes (RBAC 145.221-l(b)). The Director of Maintenance will be responsible for filing the reports.

Any aircraft damaged or involved in an accident/incident while undergoing maintenance at AAR ASL must be reported to ANAC according to instruction reference NSCA 3-13.

If AAR ASL suspects the aircraft has been involved in an incident or sustained damaged prior to working on the aircraft, the Chief Inspector will request approval from ANAC before commencing work. The customer needs to provide confirmation to AAR ASL that ANAC has notified of said damaged, NSCA 3-13 and IS 43.13-004.

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### SECTION 10 – OFF-SITE MAINTENANCE

If it is necessary, to perform work away from the Maintenance Organization, such work shall not exceed the scope of the ANAC Rating. It is the responsibility of the Chief Inspector to assure that the work performed outside of the AAR Aircraft Services, Lake Charles facility is performed to the same rules and standards as work performed at the main base. It shall be assured, by the QA manager that this work away from the main base is the exception and will not be used to permanently perform work at other places than the main base.

To ensure the same Standards for work performed away from the main base, the Chief Inspector has to assure that:

1. The acceptable technical data is available at the location where the work is performed, to the extent necessary, to perform this work and that this data is current.
2. The necessary tooling, test equipment and facilities are available at the site of the work. He/She has to ensure that precision tooling and test equipment is calibrated.
3. The documentation for the work performed away is kept in the same way as work performed at AAR ASL. He/She is responsible, that the work records are prepared in advance, as far as possible, before the work is started.
4. Appoint a person as an inspector to inspect the work and assure that all required work and forms are completed as necessary before returning the engine or article to service. This person must be included in the ANAC Roster as an employee authorized to make a maintenance release of Brazilian aeronautical products.

### SECTION 11 – EQUIPMENT & MATERIALS

AAR ASL is equipped to meet the requirements of RBAC 145.109. All inspection and test equipment will be calibrated at regular intervals, specified by equipment manufacturer or not exceeding 12 (twelve) months, with standards traceable to the NIST – National Institute of Standards and Technology or other approved International Calibration Standards set forth by the manufacturer.

### SECTION 12 – SUBCONTRACTED WORK

Subcontracted work is necessarily seen as a part of a maintenance service scope which will be under Aar Aircraft Services approval to return to service. In case of subcontracted work, the Repair Station has necessarily to perform the majority of maintenance service scope. This work can be subcontracted to a non-certified Repair Station (Aircraft Maintenance Organization), since it is periodically audited by AAR Aircraft services. All subcontracted work for Brazilian registered aircraft shall be accomplished by FAA/EASA or ANAC Certified Maintenance Organizations. Refer to AAR ASL Contracted Maintenance Functions List (Approved Vendor List). The following job functions will be provided by a subcontracted agency that has the necessary equipment and material:

1. Plating
2. Heat Treat
3. Machining
4. Aircraft Painting
5. Shot Peen
6. Weight & Balance
7. Fuel Tank Repair
8. X-Ray

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### SECTION 13 – MAINTENANCE ORGANIZATION REQUIREMENTS FOR ANAC

The ANAC AAR Aircraft Services, Lake Charles Approval Certificate shall be prominently displayed in an area accessible to the general public. This certificate shall be made available for prompt presentation whenever requested by the ANAC. AAR ASL will post the certificate on ASL Technical Library and AAR Corp site websites, as applicable.

AAR ASL shall submit for acceptance by the ANAC the changes to the RSQM Supplement that might affect Brazilian requirements. These shall be sent to ANAC for acceptance prior to work performed.

Records for all personnel with release to service authority of Brazilian aeronautical products shall be maintained by the Chief Inspector. Records shall show the training and experience required to perform such duties.

In the event of Management or Supervisory personnel changes, AAR ASL shall notify in writing the ANAC informing them of the changes.

AAR ASL shall notify the ANAC upon any change to the existing facility floor plan RBAC 145.105. AAR ASL shall apply to the ANAC the renewal certification at least 60 (sixty) days prior to the Certification expiration date. This will be accomplished in order to complete any requirements prior to the Certification expiration date. This process shall ensure that all applicable arrangements can be made prior to the arrival of the Brazilian ANAC Inspectors RBHA 145.55(c).

AAR ASL, upon receipt of a written request, shall grant access to this facility by the ANAC for inspection purposes RBAC 145.223.

AAR ASL shall have on staff, an employee who shall be able to read and have basic comprehension of the Portuguese language RBAC 145.15(E)(1). This person must be available for immediate consultation whenever maintenance, preventative maintenance, or alterations are performed (especially when it's certifying Annual Maintenance Inspection – IAM). **Mr. Marco Rodrigues, (FAA A&P license #: 3446752)** will hold this position and report directly to the Chief Inspector, Quality Control. This person also will be charged to review previous entries on the aeronautical products log book, for example; the aircraft logbook, deferred maintenance items or carry over items, etc., in order to define the work scope.

This person will be in charge (directly or indirectly) to:

Training of the certified staff that could sign the return to service of Brazilian Products.

Correct interpretation of Brazilian requirements (RBHA/RBAC and IAC/IS).

Any material released by AAR ASL for Brazilian public domain as far as and including any maintenance release documents, advertisements and other company literature, shall display the Brazilian COM Maintenance Organization Number.

### SECTION 14 – ANAC FORMS

Form F-400-04 (SEGVOO 001) – Major Alteration/Repair Record

Form F-100-01 (SEGVOO 003) – Authorized Release Certificate/Airworthiness Approval Tag




**AAR Aircraft Services - Lake Charles**  
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**APPENDIX A - Abbreviations – Abreviaturas**

<b><i>AAR ASL – AAR Aircraft Services Lake Charles</i></b>	<b><i>AAR ASL - AAR Aircraft Services Lake Charles</i></b>
AD – Airworthiness Directive	AD – Airworthiness Directive
ANAC – Brazilian National Civil Aviation Agency	ANAC – Agência Nacional da Aviação Civil
AI – Infraction Report	AI – Auto de Infração
APRS – Approval to Return to Service	APRS – Aprovação para Retorno ao Serviço
BPS – ANAC’s Service and Personnel Bulletin	BPS – Boletim de Pessoal e Serviço
CBAer – Brazilian Aeronautical Code	CBAer – Código Brasileiro de Aeronáutica
COM – Maintenance Organization Certificate	COM – Certificado de Organização de Manutenção
CST – Supplemental Type Certificate	CST – Certificado Suplementar de Tipo
DA – Airworthiness Directive	D A - Diretiva de Aeronavegabilidade
DIAM – Annual Maintenance Inspection Statement	DIAM – Declaração de Inspeção Anual de Manutenção
FAA – Federal Aviation Administration	FAA – Federal Aviation Administration
IAC – Civil Aviation Instruction	IAC – Instrução de Aviação Civil
IAM – Annual Maintenance Inspection	IAM - Inspeção Anual de Manutenção
INMETRO – Brazil’s National Institute of Metrology, Quality and Technology	INMETRO – Instituto Nacional de Metrologia, Qualidade e Tecnologia
IPM – Inspection Procedures Manual ( <i>RSQM Repair Station and Quality Manual</i> )	IPM – Inspection Procedures Manual ( <i>RSQM Repair Station and Quality Manual</i> )
IS – Supplementary Instruction	IS – Instrução Suplementar
MPI – Inspection Procedures Manual	MPI – Manual de Procedimentos de Inspeção
RBAC – RBAC Brazilian Civil Aviation Regulation	RBAC – Regulamento Brasileiro da Aviação Civil
RBHA – Brazilian Aeronautical Certification Regulation	RBHA – Regulamento Brasileiro de Homologação Aeronáutica
RSQM – Repair Station and Quality Manual (AAR ASL document)	RSQM – Repair Station and Quality Manual (AAR ASL document)
SAR – ANAC’s Superintendence of Airworthiness	SAR – Superintendência de Aeronavegabilidade
STC – Supplemental Type Certificate	STC – Supplemental Type Certificate
TFAC – Civil Aviation Inspection Tax	TFAC - Taxa de Fiscalização da Aviação Civil