

EASA Supplement Introduction

EASA Supplement Training

*Understanding EASA Special Conditions and
how they relate to your Repair Station.*



Mouse click anywhere on screen to continue!

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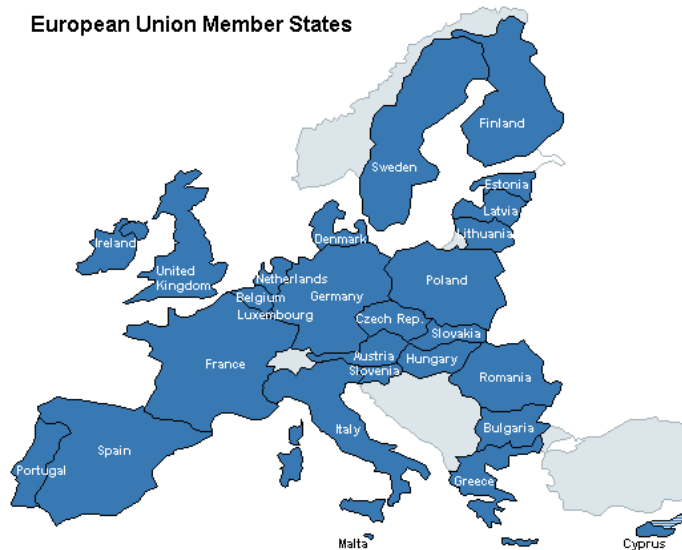
Slide 1

Welcome to Blue Tuna's EASA Supplement Training. If your company works on components (articles) operated under the regulatory control of the European Union Member States, then understanding the differences between the FAA and the European Union's requirements is critical to maintaining the airworthiness of the articles you work on. The goal of this course is to understand the special conditions your Repair Station must meet in order to work on European Union Member States' aircraft and components.

European Union of States

Bilateral Aviation Safety Agreement

European Union Member States



BASA

Slide 2

What is the basis, or rules and regulations that allows an American certificated repair station to work on articles that are under the jurisdiction of the European Union of States? It begins with a bilateral agreement between the United States and the European Union. A **Bilateral Aviation Safety Agreement** also known **BASA** is signed between the EU (and its member states) and a non-EU country. It is used when the cooperation between the two sides aims at the mutual acceptance of certificates. The European Union is composed of 28-member states (28 countries). The EU's version of the FAA is the European Aviation Safety Agency or EASA. When we enter into a mutual agreement with EASA, we are in effect, entering into an agreement with the 28-member states. The agreement is unique, in that the agreement is with the EU as a whole, not with an individual country.

EASA Supplement

sup-ple-ment

Something that completes or enhances something else when added to it.



The EASA Supplement comes to us in the form of a Maintenance Annex Guidance, also known as MAG. Throughout the supplement its' self you may see it referenced as MAG Change 6. The term change is another word for revision. So, for example, MAG Change 6, this simply means this is the 6th revision of the supplement.

Slide 3

The EASA Supplement is not a stand-alone manual. The definition of the word supplement is “something that completes or enhances something else when it is added to it.” The EASA Supplement is a document that enhances your FAA Repair Station Quality Control Manual. The Supplement bridges the gap between the two regulatory bodies.

EASA Supplement

Special Conditions



1. List of Effective Pages
2. Amendment Procedure
3. Introduction
4. Account Manager's Commitment Statement
5. Approval Basis and Limitation
6. Access by the EASA and FAA
7. Work Orders / Contracts
8. Approved Design Engineering Data
9. Airworthiness Directives
10. Release and Acceptance of Components
11. Certificate of Airworthiness (C of A) Validity
12. Release of Aircraft After Maintenance
13. Reporting of Unairworthy Conditions
14. Quality Assurance System (QAS)
15. Provision of Hangar Space for Aircraft
16. Contracted Maintenance
17. Human Factors
18. Air Carrier Line Station
19. Work Away from Fixed Location



Slide 4

The supplement bridges the gap between the FAA CFR Part 145 and EASA's Part 145. Reduced down to its basic composition, the Supplement is a list of Special Conditions that closes the gap between the two regulatory bodies. There are 19 special conditions that the Repair Station must comply with, to become EASA certificated. Following is the list of special conditions.

1. List of Effective Pages
2. Amendment Procedure
3. Introduction
4. Accountable Manager's Commitment Statement
5. Approval Basis and Limitation
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EASA Special Condition #6 ACCESS By EASA and FAA

Sample

Sample

Sample

The EASA and / or FAA must be allowed access to ABC Repair Station's facilities, documents and records to verify compliance with procedures and standards and to also investigate specific problems. The Repair Station Quality Control Manager will ensure that records of ABC's work will be kept / stored in such a manner which facilitates a timely retrieval for review by both EASA and / or FAA personnel investigating problems on behalf of the EASA.

ABC Repair Station will accept investigation and enforcement action that may be taken by EASA in accordance with any relevant EU regulations and EASA procedures and will cooperate with these actions.

Slide 5

The objective of the Supplement is to close the gap between differences that may exist between your company's Repair Station Quality Control Manual procedures and those in EASA' Part 145 requirements. The differences are spelled out in the special conditions.

Some of the special conditions will be new requirements for your FAA Part 145 Repair Station. One of those is special condition # 6, which is Access by EASA and the FAA. A Part 145 Repair Station **without** an EASA Supplement would not contain provisions for EASA to inspect the Repair Station. But a Repair Station with EASA certification is required under Special Condition # 6 to make provision for EASA Access. To understand how your Repair Station will meet this new requirement, read Special Condition # 6. This special condition must confirm the Repair Station will accept investigation and enforcement action that may be taken by EASA in accordance with any relevant EU regulations and EASA procedures and that, the Repair Station will cooperate with these actions.

Special condition # 6 in your EASA Supplement will define the way your organization will comply with the requirements set forth in this requirement. It becomes a legal binding agreement and carries the same weight as our own FAA regulatory requirements.

In your Repair Station's supplement it may read something like this.....

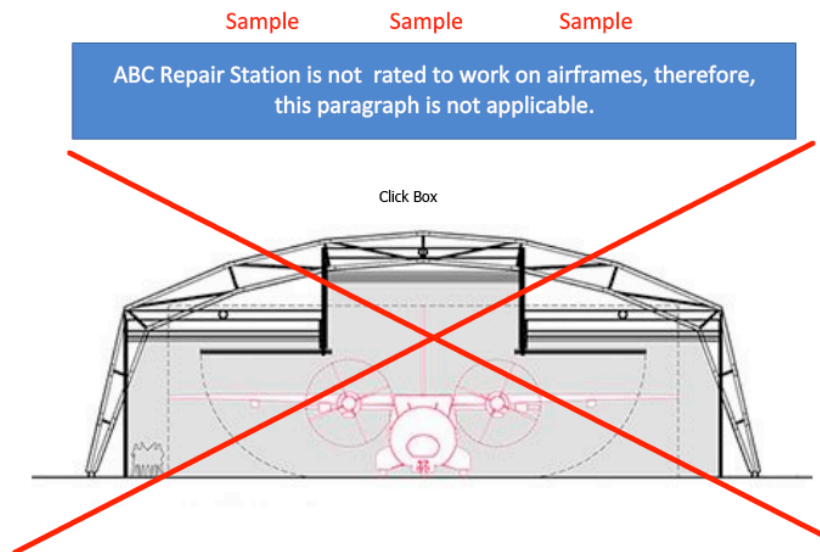
"The EASA and / or FAA must be allowed access to ABC Repair Station's facilities, documents and records to verify compliance with procedures and standards and to also investigate specific problems. The Repair Station Quality Control Manager will ensure that records of ABC's work will be kept / stored in such a manner which facilitates a timely

retrieval for review by both EASA and / or FAA personnel investigating problems on behalf of the EASA.

ABC Repair Station will accept investigation and enforcement action that may be taken by EASA in accordance with any relevant EU regulations and EASA procedures and will cooperate with these actions.”

Special Condition # 15

Provision of Hangar Space for Aircraft Maintenance



Slide 6,

Some of the Special Conditions may not apply to your Repair Station. Special Condition # 15 is Provision of Hangar Space for Aircraft Maintenance. The Special Condition Requirement states, “When the customer and repair station sign a contract for maintenance, the agreement must confirm that hangar space will be available at the time of maintenance and alterations.” However, this Special Condition may not be applicable to all Repair Stations. The note in Special Condition 15, states, “**Note: This section is only applicable to repair stations with airframe and / or limited airframe stations.**” In cases like this, the Repair Station would make an entry something like the following.

“ABC Repair Station is not rated to perform maintenance, preventative maintenance or alterations on airframes; therefore, this paragraph Special Condition # 15 is not applicable.”

THE PRIMARY OBJECTIVE OF THE QUALITY ASSURANCE SYSTEM

The primary object of the Quality Assurance System (QAS) is to satisfy itself that it can deliver a safe product and it remains in compliance with Title 14 CFR Part 43, Part 145 and EASA Special Conditions

The basis goal of North Bay Aviation's Quality Control System is to "produce airworthy articles for our customers" i.e.; Owners/Operators of articles.



The end result is to produce a safe product. A safe product is an article that is airworthy.

Airworthiness is the measure of an aircraft's suitability for safe flight.

Slide 7

While there are some differences between the EASA Quality Assurance System (QAS) and your Repair Station's Quality Control System, they share a common goal. In the EASA Supplement it is written:

"The primary objective of the Quality Assurance System is to enable the organization to satisfy itself that it can deliver a safe product and that it remains in compliance with TITLE 14, CFR Part 43, Part 145 and the EASA Special conditions."

The end result is to produce a safe product. A safe product is an article that is airworthy.

The Quality Assurance System is designed to demonstrate or provide assurance that the Repair Station is producing a safe - airworthy part.

A Repair Station Quality Control System is designed with policies and procedures to produce airworthy parts, the EASA Quality Assurance System places emphasis upon auditing a specified set of special conditions to ensure the Repair Station is producing safe, airworthy parts.

Gyros Unlimited, Inc., d/b/a North Bay Aviation Annual Internal Audit Plan														
	Audit Subject ▼	Audit Month ►	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	Repair Station & Quality Control Manuals													
2	Forms Manual													
3	Unserviceable Material & Scraped Parts Procedures													
4	Shelf Life Program													
5	Handling and Storage of Approved Parts													
6	Inspection System													
7	Shop Facilities, Housekeeping, Safety & Security													
8	Maintenance Performed for Air Carriers													
9	Training Program – RSTPM Manual													
10	Test Equipment Calibration													
11	EASA Procedures													
12	Technical Data													
13	Certificates													
14	Personnel													
15	Contract Maintenance Information													
16	Inspection Personnel													
17	Corrective Action Deficiencies													
18	Anti-Drug & Alcohol Program													
		<input type="checkbox"/> Audit Scheduled	<input type="checkbox"/> Carried out Corrective action required		<input type="checkbox"/> Audit Completed / Closed									
Plan Developed By:			Quality Control Manager						Date Developed:					
Plan Approved By:			Accountable Manager						Date Approved:					

(Revised 10/01/2012)

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The EASA Quality Assurance System requires the Repair Station to perform an Independent Audit **System**. Over the course of the year a pre-planned audit will cover applicable parts of Part 43, Part 145 and the EASA Special Conditions. This is a process of sample audits to determine your Repair Station's ability to carry out all maintenance to the required standard. As you can see by the Audit Plan located in the Appendices of the EASA Supplement, the audit plan covers 18 items over the course of the year. This audit represents a long - term commitment to monitoring compliance with standards that produces good maintenance practices and airworthy aircraft components.

This is an independent audit, which means it should not be performed by the personnel responsible for the function, procedure, or product being performed.



EASA Human Factors

1. General / Introduction to Human Factors
2. Safety Culture / Organizational Factors
3. Human Error
4. Human performance and limitations.
Click Box
5. Environment
6. Procedures, information, tools and practices.
7. Communication
8. Teamwork
9. Professionalism and integrity
10. Organization's Human Factors program

Slide 9

EASA is responsible for the emphasis of detecting and rectifying maintenance errors attributable to human factors. EASA places a great deal of emphasis on Human Factors Training. As a result, your Repair Station provides Human Factor's training in the following areas.

1. General/Introduction to human factors
2. Safety Culture/Organizational factors
3. Human Error
4. Human performance and limitations
5. Environment
6. Procedures, information, tools and practices
7. Communication
8. Teamwork
9. Professionalism and integrity
10. Organization's Human Factors program

Human Factors training enables the Repair Station's ability to identify risk factors in the workplace and to mitigate those factors by through enacting safe practices. Your Repair Station will be audited to ensure you have a strong background in Aviation based Human Factors.

Next Step

The EASA Quality Assurance System is intended to “Supplement” not replace the Repair Station’s Quality Control System.

The Repair Station’s relationship with EASA is demonstrated through this supplement by understanding and interacting with the special conditions.

The quiz will give you an opportunity to demonstrate your ability to comprehend EASA’s Quality Assurance System.

Following this presentation you will need to download the North Bay Aviation EASA Supplement. We are going to review the Special Conditions found in the Bilateral Agreement. So, you will need to download the EASA Supplement to answer questions set forth in the quiz.

The goal is to learn how to find answers to questions by using the Supplement. In this way you may become more familiar with the manual and more apt to use it when you have questions about a procedure.

Slide 10

The EASA Quality Assurance System is intended to supplement not replace your Repair Station’s Quality Control System.

The Repair Station’s relationship with EASA is demonstrated through this Supplement by understanding and interacting with the Special Conditions.

The quiz will give you an opportunity to demonstrate your ability to comprehend EASA’s Quality Assurance System.

Following this presentation, you will need to download the Student Handout, which includes this course presentation, followed by sample copy of an EASA Supplement. We are going to review the Special Conditions found in the Bilateral Agreement.

The goal is to learn how to find answers to questions by using the Supplement. In this way you may become more familiar with the Supplement and more apt to use it when have questions about a procedure.

Sample EASA Supplement MAG 6 follows in the pages below. This Supplement serves as the guidance and outline for your Repair Station's Supplement.

For the purposes of the quiz, we will use Supplement to answer questions as if, it was your Repair Station's Supplement.

MAINTENANCE ANNEX GUIDANCE

BETWEEN THE
FEDERAL AVIATION ADMINISTRATION
for the UNITED STATES OF AMERICA
AND THE
EUROPEAN AVIATION SAFETY AGENCY
for the EUROPEAN UNION



A. INDEX

1. LIST OF EFFECTIVE PAGES. Self-Explanatory

2. AMENDMENT PROCEDURE.

a) This section should describe the procedures the organization shall use to ensure the EASA supplement remains current and should specify that amendments must be submitted to the FAA FSDO for acceptance. The working practises and procedures must be reflected in the 14 CFR part 145 RSM/QCM and, if appropriate, in this EASA Supplement. In addition, this paragraph should identify who within the organization is responsible for approving amendments and for ensuring that all amendments to the supplement are submitted to the FAA for acceptance.

b) Failure to ensure that the 14 CFR part 145 RSM/QCM and this EASA Supplement are kept up to date in respect of regulatory changes and that the repair station staff comply with the procedures therein could invalidate the EASA Approval.

c) Changes to the MAG shall be implemented, as applicable, within 90 days after the change has been published, unless otherwise specified.

3. INTRODUCTION.

a) This paragraph should address why the supplement is necessary. EASA Part-145 is a European requirement similar to 14 CFR part 145

b) The Maintenance Annex agreed to by the FAA and EASA specifies the basic differences between EASA Part-145 and 14 CFR part 145 and identifies these differences as special conditions.

c) A 14 CFR part 145 repair station can be EASA Part-145 approved when the repair station complies with the maintenance special conditions as detailed in this procedure in addition to complying with 14 CFR parts 145 and 43.

d) The supplement should help ensure that the organization is working in accordance with the provisions of their EASA Part-145 Approval Certificate and to ensure that the differences between the EASA and FAA regulations are taken into account.

4. ACCOUNTABLE MANAGER'S COMMITMENT STATEMENT.

a) This paragraph represents the Agreement by the Accountable Manager that the organization will comply with the conditions specified in the supplement whilst operating in accordance with the EASA Part-145 approval. It includes recognition of the consequences of failing to meet either requirements or standards.

b) The accountable manager is normally intended to mean the chief executive officer of the organization, who, by virtue of position, has overall responsibility (including appropriate financial authority) for running the organization. When the accountable manager is not the chief executive officer, he must have direct access to the chief executive officer and have a sufficiency of maintenance funding allocation.

c) An acceptable statement for this paragraph would be:

“This supplement in conjunction with the RSM/QCM [insert RSM/QCM reference here as applicable] defines the organization and procedures upon which EASA approval is based.

“These procedures are approved by the undersigned, and must be adhered to, as applicable, when maintenance work/orders are being performed under the conditions of the EASA Part-145 approval.

“It is accepted that the repair station’s procedures do not override the necessity of complying with any additional requirements formally published by the EASA and notified to this organization from time to time.

“It is understood that the EASA shall issue an Approval Certificate and list this repair station in an EASA published list as long as the EASA is satisfied that the procedures are being followed and work standards maintained. It is further understood that EASA reserves the right to revoke the Approval Certificate if EASA considers that procedures are not followed or standards not upheld.”

d) This statement shall be signed and dated by the Accountable Manager for and on behalf of the repair station.

e) Please note that whenever the Accountable Manager is replaced, the new Accountable Manager must sign the statement to ensure continuous EASA Part-145 Approval and provide the responsible FAA ASI with the amendment of the supplement.

5. APPROVAL BASIS AND LIMITATION.

a) EASA approval is based upon compliance with 14 CFR parts 145 and 43 except where varied by the special conditions specified in the Maintenance Annex and associated guidance. However, this approval must not exceed the ratings permitted by Commission Regulation (EU) No. 1321/2014.

b) The approval of maintenance work is limited to the scope of work permitted under the current certificate issued by the FAA to the repair station in accordance with 14 CFR part 145 for work carried out within the United States. Deviations have to be agreed on a case-by-case basis by the JMCB.

6. ACCESS BY EASA AND FAA. In accordance with the Agreement, Annex 2, Appendix 1, paragraph 1.2:

- a) The supplement must confirm that the repair station agrees to provide access to EASA and FAA to ascertain compliance with 14 CFR part 145, the EASA Special Conditions, procedures and standards and to investigate specific problems.
- b) The supplement must confirm that the organization will accept investigation and enforcement action that may be taken by EASA in accordance with any relevant EU regulations and EASA procedures and that the organization will cooperate with these actions.

7. WORK ORDERS/CONTRACTS.

This section should describe the procedures the repair station shall use to ensure the following:

- a) That the repair station shall receive clearly stated work orders describing the scope of the work to be accomplished from the customer.
- b) How it ensures the work order specifies the inspections, repairs, alterations, overhaul, airworthiness directives and parts replacement required.
- c) How completeness of and compliance with the customers' work order is ensured.
- d) That the customer remains responsible for correctly informing the repair station by work order of all required maintenance and alterations.

8. APPROVED DESIGN AND REPAIR DATA.

a) Changes to the type design: Major Changes, Minor Changes, STCs. The EASA-approved design engineering data is normally data supplied by an EASA Design Organization Approval (DOA) holder, or data approved by the National Aviation Authority of the Type Certificate Holder (or equivalent), or data supplied by the customer and approved by the EASA. In all cases, the customer is responsible for confirmation of data approval. Details for the acceptance and /or validation of FAA approved changes to the type design by EASA are contained in Annex 1 to the Agreement and in the Technical Implementation Procedures (TIP).

NOTE: EASA defines “design change” as a change to the type design. EASA *does not* automatically accept alterations that affect type design.

b) Repairs.

(1) FAA shall approve design data in support of major repairs in accordance with FAA Order 8110.4, Type Certification; FAA Order 8110.37, Designated Engineering Representative Guidance Handbook; FAA Order 8100.15, Organization Designation Authorization Procedures; and FAA Order 8900.1, Flight Standards Information Management System. Minor repairs are made in accordance with “acceptable” data, in accordance with 14 CFR part 43.

(2) EASA shall approve design data in support of repairs in accordance with EASA Part 21 Subpart M-Repairs and EASA’s procedure Type Certificate Change and Repair Approval.

c) EASA Acceptance of FAA Repair Design Data.

Non-Critical Components.

(1) EASA shall accept data used in support of major repairs regardless of the State of Design of the product, part or appliance, if:

- (i) EASA has certificated/validated the product or appliance,
- (ii) The FAA is the authority of the State of Design for the repair design data, and
- (iii) The FAA repair design data approval is substantiated via an FAA letter or FAA Form 8110-3, FAA Form 8100-9, properly executed FAA Form 337, or a signed cover page of a repair specification.

(2) EASA shall also accept data used in support of minor repairs when:

- (i) EASA has certificated/validated the product or appliance,
- (ii) The FAA is the authority of the State of Design for the repair design data, and
- (iii) The repair design data has been provided by a U.S. TC/STC or TSOA holder, or
- (iv) For minor repairs from other than a U.S. TC/STC or TSOA holder, the determination that data is acceptable (under 14 CFR Part 43) has been made by a U.S. maintenance organization under FAA’s authorized system.

NOTE: An EU company must use EASA Part 21 for the approval of repair data for use on an EU-registered aircraft. Unless the minor repair data has been previously used on an N-registered aircraft, an EU company cannot determine any

data to be acceptable data under 14 CFR Part 43 for use on an EU-registered aircraft.

(3) In these circumstances, repair design data are considered to be EASA-approved following its approval or acceptance under FAA's system. This process does not require application to EASA or compliance findings to the EASA certification basis.

Critical Components

NOTE: A critical component is defined as a part identified as critical by the design approval holder during the validation process, or otherwise by the exporting authority. Typically, such components include parts for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section or certification maintenance requirements of the manufacturer's maintenance manual or Instructions for Continued Airworthiness.

(4) EASA shall accept any critical component repair design data from a TC/STC holder, regardless of the State of Design of the product, if.

(i) EASA has certificated/validated the product, and

(ii) The FAA is the authority of the State of Design for the repair design data.

(iii) In these circumstances, repair design data are considered to be EASA-approved following its approval under FAA's system. This process does not require application to EASA or compliance findings to the EASA certification basis.

(5) Repair design data on critical components, developed by organizations/persons that are not the TC/STC Holder, shall be submitted to the Agency for approval following the standard application procedure, with an EASA Form 31. Applicants do not need to hold a DOA if the repair data has been approved by the FAA.

9. AIRWORTHINESS DIRECTIVES. This section should describe the procedures the Repair Station will use to address items a, b, and c below.

a) Explain how the organization ensures it has all EASA ADs applicable to the work it is performing under the ratings it holds.

b) State how the organization will manage and control the distribution and use of ADs. It also should identify how the organization will ensure that it makes the applicable EASA ADs available to its personnel when they perform work under its EASA approval and rating.

c) Include repair station procedures to ensure customer approval/request of the performance of applicable ADs. If the organization does not comply with an applicable AD, its non-compliance must be recorded in the item's maintenance records. This section should describe how this information would be recorded and transmitted to the customer.

10. RELEASE AND ACCEPTANCE OF COMPONENTS.

a) This section should describe the procedures the repair station will use to ensure that the Release to service of components up to and including complete powerplants will be carried out in accordance with 14 CFR § 43.9, except that Section B, Appendix 1, paragraphs 7 through 10 shall also be taken into account. At the completion of maintenance, an FAA Form 8130-3 shall be issued as a maintenance release by the repair station.

b) The FAA Form 8130-3 should include the EASA Part-145 release to service certifying statement with the EASA Part-145 Approval Certificate number in block 12, and specify any overhaul, repairs, alterations, Airworthiness Directives, replacement parts, PMA parts and quote the reference and issue/revision of the approved data used.

c) An example completed FAA Form 8130-3 dual release shall be included by the repair station in the supplement. Instructions shall be included in the supplement specifying that blocks 13a through 13e are not to be used by the repair station.

d) The signature of the person returning the component to service shall be in block 14b with the FAA Repair Station Certificate number in block 14c.

e) The status of the component (repaired, inspected, overhauled, etc.) shall appear in block 11 with any relevant comments including detailed references to approved data, Ads, etc., in block 12. Example: "Overhauled in accordance with CMM 111, Section X, Rev 2, S/B 23 and FAA AD xyz complied with. Full details held on WO 456."

f) Block 12 shall also contain the following statement:

"Certifies that the work specified in block 11/12 was carried out in accordance with EASA Part-145 and in respect to that work the component is considered ready for release to service under EASA Part-145 Approval Number: "EASA 145....."

NOTE: In the case of maintenance carried out by a U.S.-based EASA Part-145 approved organization subject to the Agreement, EASA only recognises the dual release FAA Form 8130-3 for component, engine, or propeller maintenance.

g) Please note that the sub clause “except as otherwise specified” is intended for use with two types of deviations as follows:

(1) The case where all required maintenance was not carried out. In this case, list the maintenance not carried out in Block 12 and/or attachments.

(2) The case where the particular maintenance requirement was only EASA-approved and not FAA-approved. Example: an EASA Airworthiness Directive not approved by the FAA.

h) The repair station will identify in the RSM/QCM how it maintains and revises the roster of personnel authorized to sign an FAA Form 8130-3 (maintenance release) for approving a maintained or altered article for return to service.

i) The supplement should include information regarding the acceptability of components authorized for use during maintenance that should comply with the following paragraphs i and j.

j) Component means any component part of an aircraft up to and including a complete powerplant and any operational or emergency equipment.

k) Only the following new and used serviceable components that meet the requirements listed below may be fitted during maintenance.

(1) New Components.

(a) New components must be traceable to the Production Approval Holder (PAH) and be in a satisfactory condition for installation. An authorized release document, as detailed below, must accompany the new component.

i) For new components from a U.S.-PAH, release must be documented on an FAA Form 8130-3 as a new part.

NOTE: New parts that were received into inventory prior to October 1, 2016 must, at a minimum, have a document or statement (containing the same technical information as an FAA Form 8130-3) issued by the PAH or supplier with direct ship authority. These parts in inventory, documented with the required information, will be grandfathered and remain suitable for installation into EU articles, provided the certification/release date of these parts is prior to October 1, 2016.

- ii) For new components released by an EU-PAH, release must be documented on an EASA Form 1, as a new part.
- iii) For new components released by a Canadian-PAH, release must be on the Transport Canada Civil Aviation (TCCA) Canadian Form One as a new part.
- iv) Fabricated parts, produced by an appropriately rated repair station with a quality system, for consumption into a repair or alteration of a product or article in accordance with 14 CFR part 21, section 21.9(a)(6), and part 43, are not subject to the foregoing provision.
- v) Standard parts are not subject to the foregoing provisions, provided such parts are traceable to the manufacturer, accompanied by a conformity statement, and are in a satisfactory condition for installation.

NOTE: EASA Standard Parts Definition: Per AMC M.A.501(c), “Standard Parts are: parts manufactured in complete compliance with an established industry, Agency, competent authority or other Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications etc...”

- vi) PMA parts may only be accepted as detailed in subparagraph 10(k)(1)(a)(i) above and in the Technical Implementation Procedures (TIP) .
- vii) Engines rebuilt by the production approval holder can be accepted as specified in the Technical Implementation Procedures for Airworthiness and Environmental Certification (TIP- paragraph 5.1.4).

(2) Used Components.

- (a) Used components must be traceable to FAA- and/or EASA-certificated facilities that are approved and authorized to certify the maintenance, preventive maintenance, and/or alterations which they have performed. In the case of life limited parts, the life used must be appropriately documented. The used component must be in a satisfactory condition for installation and be eligible for installation as stated in the PAH parts catalogue or aviation authority (AA) approval document. An authorized release document, as provided below, must accompany the used component.
 - i) An FAA Form 8130-3 issued as a dual maintenance release must accompany used components from EASA-approved U.S.-based 14 CFR part 145 repair stations.
 - ii) Used components from a 14 CFR part 145 repair station not EASA-approved must not be used even if accompanied by an FAA Form 8130-3.
 - iii) An EASA Form 1 issued as a maintenance release shall accompany used components from EASA Part-145 approved maintenance organizations not located in the U.S.
 - iv) A Canadian Form One issued as a maintenance release must accompany used components from a Canadian EASA-approved maintenance organization.

NOTE: Canadian EASA-approved maintenance organizations will specify the EASA release statement and their EASA approval number in the remarks block of Canadian Form One.

- v) Used components that have been issued a triple release (i.e., certifying compliance with FAA, EASA, TCCA requirements) on an EASA Form 1 as a maintenance release are acceptable.

I) The following table is a summary of possible cases:

Privileges of the dual EASA and FAA certificated maintenance organization			
United States		Europe	
Release Document of Final Assembly: 8130-3 Dual Release		Release Document of Final Assembly: EASA Form 1 Dual Release	
Acceptable New Products/Articles: EASA Form 1 NEW 8130-3 NEW C of C Standard Parts		Acceptable New Components: EASA Form 1 NEW 8130-3 NEW C of C Standard Parts	
USED Products/Articles:		USED Components:	
Acceptable Used Products/Articles Release Document (input)	Final Assembly Release document (output)	Acceptable Used Components Release Document (input)	Final Assembly Release document (output)
8130-3 Single	8130-3 Single	Form 1 Single	Form 1 Single
8130-3 Dual	8130-3 Dual	Form 1 Dual*	Form 1 Dual*
Form 1 Dual*	8130-3 Dual	8130 Dual	Form 1 Dual*
Form 1 Single	Form 8130-3 (see below U.S.)	8130 Single	Form 1 (see below Europe)

* For the purpose of the table above, triple release mentioned in subparagraph v above has the same status as EASA Form 1 Dual.

United States

One or more products/articles were installed with an EASA Form 1 single release and so the final assembly cannot be released with a 8130-3 dual release. The final release should be issued with the following statements in the specified blocks. "The final assembly is eligible to be installed only on an EU registered aircraft."

In block 14a only check the box mentioning "Other regulation specified in block 12." Do not check box that states compliance to 43.9.

In block 12, the following text should be inserted:

"Certifies that the work specified in Block 11/12 was carried out in accordance with EASA Part 145 and in respect to that work the component is considered ready for release to service under EASA Part 145 approval no._____."

This product/article meets part 43.9 requirements, except for the following items, and therefore is **"not"** eligible to be installed on U.S.-registered aircraft:"

(List the items)

Europe

One or more products/articles were installed with a FAA Form single release and so the final assembly cannot be released with an EASA Form 1 dual release. The final release should be issued with the following statements in the specified blocks. "The final assembly is eligible to be installed only on an US registered aircraft."

In block 14a, check only the box mentioning "Other regulation specified in block 12." Do not check the box that states compliance to 145.A.50.

In block 12, include the following release statement:

"The work identified in Block 11 and described herein has been accomplished in accordance with 14 CFR part 43 and in respect to that work, the items are approved for return to service under certificate no._____."

This product/article meets 145.A.50 requirements, except for the following items, and therefore is **"not"** eligible to be installed on an EU-registered aircraft:"

(List the items)

11. CERTIFICATE OF AIRWORTHINESS (C of A) VALIDITY. This section should describe the procedures the repair station will use to ensure that the Certificate of Airworthiness and the Airworthiness Review Certificate are valid prior to the issue of a release to service document. This paragraph is only applicable to repair stations with an airframe/aircraft and/or limited airframe rating.

NOTE: Although EU aircraft have indefinite C of As, the C of A's validity period is verified by means of an "Airworthiness Review Certificate" (ARC). The EASA Operator or owner is responsible for ensuring the C of A remains valid but the repair station should ensure that the ARC has not expired prior to release of the aircraft as specified in Section B Appendix 1 paragraph 12. If the ARC has expired, inform the customer prior to the release as specified in paragraph 12.

12. RELEASE OF AIRCRAFT AFTER MAINTENANCE.

a) This section should describe the procedures the repair station will use to ensure that the release to service of aircraft will be carried out in accordance with 14 CFR § 43.9 except that paragraphs 7 through 10 and 12 of this supplement must be taken into account. At the completion of maintenance, make the following certification in the aircraft maintenance record.

b) Return to Service in Accordance with 14 CFR § 43.9 and the following: "Certifies that the work specified; *except as otherwise specified*, was carried out in accordance with FAA airworthiness regulations, and in respect to that work the aircraft is considered ready for release to service."

c) Please note that the sub clause "except as otherwise specified" is intended for use with two types of deviations as follows:

(1) The case where all required maintenance was not carried out. In this case, list the maintenance not carried out on the 14 CFR § 43.9 Return to Service and/or attachments.

(2) The case where the particular maintenance requirement was only EASA-approved and not FAA-approved. Example: an EASA Airworthiness Directive not approved by the FAA.

d) Where the customer/operator requires his/her paperwork to be signed, the following alternate certification can be made. The following is only applicable to repair stations with airframe and/or limited airframe rating.

(1) Release to Service in Accordance with EASA Part-145.A.50:

“Certifies that the work specified, except as otherwise specified, was carried out in accordance with EASA Part-145 and in respect to that work the aircraft is considered ready for release to service.”

(2) In all cases, the repair station must issue the certification when all required maintenance has been carried out, except that if it was not possible to complete all maintenance actions requested, then details of the work not performed must be endorsed on the Release to Service and the Operator informed.

(3) Quote the EASA Part-145 Approval Certificate Number and the FAA 14 CFR part 145 Certificate Number in all cases, whether it is a 14 CFR part 43 Return to Service or an EASA Part-145 Release to Service.

13. REPORTING OF UNAIRWORTHY CONDITIONS. This section should describe the procedures the repair station will use to ensure that, when serious defects are found in EU-registered aircraft or components received from an EU customer, the defects must be reported to EASA, the aircraft/component design organization, and the customer or Operator within 72 hours. When reporting to the EASA, the identity of the customer must be included to allow follow up action.

a) Explain the procedures the organization will use to ensure that it will submit a report in a form and manner acceptable to EASA containing the information required by EASA Part-145 in English through:

- EASA online platform,
- Occurrence Reporting Form,
- FAA Service Difficulty Report, or
- FAA SUP report.

b) Submit this form in accordance with the timeframe specified in EASA Part-145, when reportable problems are found on an aircraft, power plant, propeller, or component thereof that is subject to the regulatory control of EASA.

(1) **Responsibility.** Include the title of each person responsible for completing and submitting reports of unairworthy conditions to EASA

NOTE: EASA Part-145 occurrence reporting requirements include SUP reporting requirements.

14. QUALITY ASSURANCE SYSTEM (QAS).

- a) This section should describe the detailed procedures the repair station will use for the operation of an independent QAS and should include the following items.
- b) The primary objective of the QAS is to enable the organization to satisfy itself that it can deliver a safe product and that it remains in compliance with 14 CFR part 43, 14 CFR part 145 and the EASA Special conditions.
- c) The QAS should include all the contracted work in accordance with guidance given in Item 16 of the Supplement.
- d) Develop an audit plan annually that includes applicable paragraphs of 14 CFR part 43 and part 145 and the EASA special conditions
- e) There are two elements to the system:
 - (1) An independent audit system.
 - i) The independent audit system is a process of sample audits of all aspects of the repair station's ability to carry out all maintenance to the required standards. It represents an overview of the complete maintenance system and does not replace the need for mechanics to ensure that they carry out maintenance to the required standard nor does it replace any associated inspection/quality control system. Independence shall be established by ensuring that audits are not carried out by the personnel responsible for the function, procedure, or product being audited.
 - ii) The audit system shall cover the oversight of all multiple facilities and line stations under the approval and must contain as a minimum the following:
 - Procedural audits. The audits should monitor compliance with required aircraft/aircraft component standards and adequacy of the maintenance procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components.
 - Product audits. The sample check of a product means to witness any relevant testing and visually inspect the product and associated documentation. The sample check should not involve repeat disassembly or testing unless the sample check identifies findings requiring such action.
 - iii) It is acceptable to use personnel from one section/department to audit the work and products of another section/department in accordance with a procedure under this paragraph, which defines the audit program.
 - iv) The process of sample audits may be carried out once per year as a single exercise or conducted in segments during a period of one year in

accordance with the audit program contained in the Supplement. All applicable 14 CFR parts 43 and 145 provisions and the EASA Special Conditions as detailed in this guidance should be checked at least once per year against each primary product line.

- v) A primary product line is any one aircraft, engine, avionic, or mechanical product line where the systems and procedures are very similar throughout that product line.
- vi) Repair stations with fewer than 10 employees may contract the audit function to a person acceptable to EASA who is not employed by the repair station. But in this case the audit of all applicable 14 CFR parts 43 and 145 provisions and EASA Special Conditions as detailed in this guidance must be carried out twice per year.

(2) A management/control and follow up system.

- i) The management control follow up system, which must not be contracted to outside persons, consists of a system to ensure that all findings/discrepancies resulting from the independent audit system are corrected in a timely manner and to enable the accountable manager to remain informed of the state of compliance and any safety issues. The accountable manager should hold routine meetings to check the progress on clearing outstanding findings/discrepancies, except that in the larger repair stations such meetings may be delegated on a day-to-day basis to the Quality Manager as long as the accountable manager meets at least once per year with the senior staff involved to review the overall performance.
- ii) Where the repair station has associated line stations and/or additional fixed locations, the system should describe how these are integrated into the system and shall specify the need to audit each line station and/or additional fixed location at least once per year.
- iii) Where applicable, each line station that is used by an aircraft operated under the regulatory control of an EU Operator in accordance with the conditions of the Maintenance Annex should be listed giving its location and the basic maintenance capability at each such location.
- iv) The QAS as specified in this paragraph must be extended to include the need for the approved maintenance organization to audit the listed line station and/or additional fixed locations.
- v) One example of the particular product line shall be used as the basis of each audit, except in the case of stores audits when a random selection of parts should be used for the audit. It therefore follows that a repair station maintaining aircraft and engines (off aircraft) and mechanical parts (off

aircraft) would need to carry out three audit sample checks each year with the particular product type changed each year. A sample audit program is attached.

- vi) A report shall be prepared for each audit carried out describing what was checked and any resulting findings/discrepancies. The report should be sent to the relevant departments for rectification action giving target rectification dates. The relevant departments are required to rectify the findings/discrepancies and inform the quality department.
- vii) A product should be selected in each hangar and each workshop and the sample audit program conducted at least once per year (twice per year in the case of a repair station with fewer than 10 employees and which chooses to contract the audit to an outside person except that in the case of procedures which are common throughout the repair station, the procedures need only be audited once per year if there are no problems.)

15. PROVISION OF HANGAR SPACE FOR AIRCRAFT MAINTENANCE.

a) This section must describe the procedures the repair station will use to ensure that covered hangar space is available for the Base maintenance of aircraft operated under the regulatory control of an EU Member State undergoing maintenance and/or alteration. When the customer and repair station sign a contract for maintenance, the agreement must confirm that hangar space will be available at the time of maintenance and alterations.

NOTE: This section is only applicable to repair stations with airframe and/or limited airframe ratings.

16. CONTRACTED MAINTENANCE. This section should describe the procedures the repair station shall use to ensure that the items to be contracted are specified and that the contract meets the terms of the implementation procedures.

NOTE 1: When part of the maintenance is contracted to another organization, the repair station must ensure that the other organization is approved to EASA Part-145 for the maintenance they carry out (contracting). **If maintenance is contracted to a non-EASA-approved organization (subcontracting), then this is considered to be a Non-certificated Facility. In such a case, the repair station returning the product to service is fully responsible for ensuring its airworthiness.**

NOTE 2: To prevent duplication with the FAA Repair Station Manual and the EASA Supplement, it is permissible to make a cross reference to the RSM procedures in the EASA Supplement making a clear reference to where the information is to be found.

a) List of Contractors. EASA recognizes 14 CFR part 145 requirements for the Repair Station Manual to contain a list of all contractors utilized by the Repair Station and the contracting function accepted by the FAA as part of the Repair Station Manual. The list contains the name, physical address, and certificate and function to be performed. EASA can accept this practice when the list identifies, by an asterisk or other means of identification, those contractor(s) the Repair Station will use to support maintenance activities for aircraft registered in EU or aeronautical products to be installed on such aircraft. **The list should identify the contractors that hold an EASA Part-145 certificate and must also be made available to EASA on request.**

b) Qualifying and Auditing Contractor.

(1) Describe those procedures the Repair Station will use to both qualify and audit contractors.

(2) Contracting to non-EASA- approved Sources (subcontracting). If the Repair Station contracts a maintenance work to a non-EASA-certificated source, the Repair Station must be appropriately rated itself to perform the work. This section should:

- i) Explain that the Repair Station is responsible for approving for return to service each item on which work is performed and for ensuring its airworthiness.
- ii) Indicate that any non-EASA- approved contractor to which work is contracted must be under the control of the Repair Station's QAS. Additionally, the Repair Station must inspect each item on which contracted work has been performed for compliance with this supplement.
- iii) Explain that if the Repair Station cannot determine the quality of contracted work, the work can only be contracted to an EASA-approved facility that is able to test and/or inspect the work performed and issue a return to service for the work performed. If the contracted item must be disassembled by the Repair Station to determine the quality of the work performed, then it should not be contracted to a non-EASA-approved source.

(3) Contracting to EASA-approved Facilities. This subsection should:

- i) Explain that if the Repair Station contracts functions to another organization that is EASA-approved, the contractor is responsible for approving the return to service for each item on which it has worked.
- ii) Describe the procedures the Repair Station will use to determine that the EASA-approved Repair Station to which work is contracted is properly certificated to perform that work.

(4) Receiving Inspections. This subsection should:

- i) Describe the Repair Station's procedures for inspecting the work performed by a contractor on an item that has been returned to service.
- ii) Describe the procedures the Repair Station uses to provide technical training for receiving inspection personnel who inspect contracted work.
- iii) Explain the procedures the Repair Station will use to ensure that items on which contracted work has been performed are properly processed through the organization's receiving inspection procedures.
- iv) Explain receiving inspection procedures in enough detail to enable a receiving inspector to make an airworthiness determination of any item received based on a technical review of the contractor's source documentation.
- v) Describe the method of recording contractor's work and the record retention period.

(5) Audits. This subsection should:

- i) Describe the procedures the Repair Station uses when auditing contractors and the frequency of such audits. It also should explain the procedures for recording the results of such audits, to include the record-retention period for the results of each audit.
- ii) Describe the procedures the Repair Station will use to ensure that contractors comply with operators' manuals, manufacturers' manuals, and Instructions for Continued Airworthiness.
- iii) Describe how contractors are informed of any changes to these manuals and procedures.

17. HUMAN FACTORS. This section should describe the procedures the repair station will use to ensure the detection and rectification of maintenance errors that may endanger the safe operation of aircraft. The procedures shall ensure that the FAA-approved initial and recurrent training program and any revision thereto includes human factors training, addressing resources, human performance limitations, shift changeover and how personnel are trained, to ensure an understanding of the application of human factors principles. The following topics should be covered:

- a) General/Introduction to human factors
- b) Safety Culture/Organizational factors
- c) Human Error

- d) Human performance and limitations
- e) Environment
- f) Procedures, information, tools and practices
- g) Communication
- h) Teamwork
- i) Professionalism and integrity
- j) Organization's Human Factors program

18. LINE STATIONS.

a) **Repair stations with line maintenance authorization:** EASA uses the term line stations, while the FAA uses the term line maintenance authorization in 14 CFR part 145. These terms are synonymous when applied under the terms of the Agreement.

b) **EASA Certificate.** The EASA certificate shall cover line stations under the surveillance of the FAA, except those located in one of the EU member states listed in the Agreement, Annex 2, Appendix 2 and holding an FAA line maintenance authorization.

c) **Air Carrier.** Where the repair station is also a 14 CFR part 121 air carrier and holds a 14 CFR part 145 certificate, the procedure shall ensure that at least one of its main maintenance facilities is rated for the aircraft type(s) and the scope of work is relevant to the line station(s).

d) **Repair Station.** The procedure must specify that a 14 CFR part 145 repair station can only be accepted if the Operations Specifications Part D107 authorizes the certificate holder to perform line maintenance and lists the specific locations for the operators.

e) **For Each of the Above.** The EASA supplement procedure must clearly demonstrate that the quality system covers the air carrier certificate (if applicable), the 14 CFR part 145 certificate and the line stations and all stated activities. It shall be shown how control by the parent facility is ensured, that the line station(s) operate under the same EASA supplement as the parent facility, and the ratings do not exceed those of the parent facility. All line stations exercising the privileges of the EASA Part-145 approval must be listed in the EASA supplement together with associated operator, aircraft type, location, and contract specifying the scope of work for that particular operator. A copy of the relevant page of the supplement must also be supplied to EASA as part of the package for initial, renewal, or change (affecting the list of line stations) to the approval.

NOTE: SAS is primarily used to identify line stations of FAA repair stations within the United States that provide maintenance for U.S. air carriers. EU operators operating under 14 CFR part 129 shall also be listed on D107. Additionally, they have to be identified in the EASA supplement and subsequently in the SAS Vitals Information.

19. WORK AWAY FROM FIXED LOCATIONS. If a repair station is requested to perform maintenance on an EU-registered aircraft or article located outside the territory of the United States, the repair station may work away from its fixed location in the following cases.

a) **For a One-time Special Circumstance.** If the EASA supplement or the RSM/QCM does not have a written procedure for work away from its fixed location and the repair station does not have D100 authorization, the repair station must apply to EASA in advance of doing the work. This application must describe the work to be performed, the date of the work, the customer, and certify to EASA that the repair station will follow all existing procedures in its current Repair Station Manual and EASA Supplement. (The application is to be sent to foreign145@easa.europa.eu.) EASA will review the application and answer the organization in writing, with a copy to the FAA, either accepting or rejecting the application. If the application is rejected, the reasons will be specified in the letter.

b) **On a Recurring Basis.** This occurs when necessary subject to the FAA OpSpec D100 being in place for this work and only to perform non-routine maintenance, to be defined for this guidance as urgent defect rectification, on an EU-registered aircraft or articles intended for installation on EU-registered aircraft. The FAA Repair Station Manual (RSM) defines the procedural requirements that the repair station should use. It is permissible to prevent duplication to make a cross reference to the RSM procedures in the EASA supplement for this aspect. Within the U.S., the ASI shall be informed and notification to EASA is not required. Outside the U.S., the ASI shall be informed and notification to EASA shall be sent to the following e-mail address: foreign145@easa.europa.eu

NOTE: This paragraph is not applicable to line stations addressed in Section B, Appendix 1, paragraph 18.

Sample Audit Program, EASA Supplement U.S. Repair Stations

AUDIT SUBJECT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FAR 43.7 Persons authorized to return to service												
FAR 43.9 Contents of Maintenance and Alteration Records												
FAR 43.12 Falsification of Records												
FAR 43.13 Standards												
FAR 43.15 Additional Standards												
EASA Supplement 4 Accountable Manager Statement												
EASA Supplement 7 Customer Work Order												
EASA Supplement 8 Approved Design and Repair Data												
EASA Supplement 9 Airworthiness Directives												
EASA Supplement 10 Release and Acceptance of Components												
EASA Supplement 12 Aircraft Release or Return to Service												

AUDIT SUBJECT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
EASA Supplement 13 Reporting Unairworthy Conditions												
EASA Supplement 14 Quality Assurance System												
EASA Supplement 15 Hangar Space												
EASA Supplement 16 Contracted Maintenance												
EASA Supplement 17 Human Factors												
EASA Supplement 18 Line Stations												
EASA Supplement 19 Work away from Fixed Location												

Audit details are contained in the associated
audit report Table KEY: / = planned, X =
performed

Prepared: Date, sign Quality

Manager Accepted: Date, sign

Accountable Manage