



中国民用航空总局

咨 询 通 告

编 号：AC-ARJ21-01

颁发日期：2007 年 1 月 5 日

ARJ21 飞机国外供应商管理政策指南

中国民用航空总局航空器适航审定司

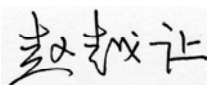
中国民用航空总局航空器适航审定司

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部门代号：AAD

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批准人：

ARJ21 飞机国外供应商管理政策指南

1. 目的

本咨询通告就 ARJ21 飞机型号合格审定过程中对国外供应商管理政策的有关要求提供指导性材料。

2. 适用性

本咨询通告为 ARJ21 型号合格证申请人对参与 ARJ21 飞机型号设计的国外供应商的控制提供一种可接受的符合性方法，为 ARJ21 型号合格审查人员提供评审 ARJ21 型号合格证申请人有关供应商控制的指导性原则。

3. 依据

本咨询通告依据中国民用航空规章《民用航空产品和零部件合格审定规定》（CCAR-21）制定。

4. 参考文件

《民用航空产品和零部件合格审定规定》(CCAR-21)

《型号合格审定程序》(AP-21-03)

上述参考文件可从如下两个途径获取：

(1) 购买

中国民用航空总局航空安全技术中心

地址：北京朝阳区西坝河北里甲 24 号

邮编：100028

联系人：宣怀

电话：010 - 64473622

传真：010 - 64473622

(2) 网络下载

访问中国民用航空安全信息网的适航司主页

http://safety.caac.gov.cn/index_sh.jsp，从“法律规章及规范性文件”栏目

下载上述的参考文件。

5. 背景

中国航空工业第一集团公司商用飞机有限公司（以下简称中航商飞公司）作为 ARJ21 飞机的型号合格证申请人，在 ARJ21 飞机的型号设计过程中采用与国际系统供应商联合定义，国际系统供应商负责系统详细设计，国内主要的航空院所负责结构设计和系统综合的设计模式。参与这种型号设计的国外供应商包括欧美等多国的设计厂商。

中航商飞公司作为 ARJ21 飞机的型号合格证申请人，在型号合格审定

过程中承担包括供应商控制和系统综合在内的所有研发责任以及表明对适航标准的符合性的责任。

6. 一般要求和说明

为了体现型号合格证申请人的职责，中航商飞公司对参与 ARJ21 飞机型号设计的国外供应商的控制应包括如下内容：

6.1 供应商的项目概况

6.1.1 供应商承担设计任务的项目简介

6.1.1.1 项目功能简介

6.1.1.2 项目设计规范（TSO 标准、行业标准等）

6.1.1.3 项目在其他型号上的使用经验（如适用）

6.1.2 相关设计设施和设计能力（供应商的资质）

6.2 ACAC 对供应商的控制

6.2.1 ACAC 与供应商之间以及 ACAC 与审查方之间的联络人信息，包括其职责、授权和联络方式

6.2.2 ACAC 与供应商之间的合格审定工作/合格审定支持工作的协调管理程序

6.2.3 ACAC对供应商工程资料的批准范围和方式¹

6.2.4 构型控制

6.2.4.1 ACAC 对 ARJ21 项目的构型控制程序

¹ 所有提交审查代表审查的供应商编制的工程资料，申请方必须首先完成必要的工程确认和审批程序。

对于供应商用于飞机结构、系统和零部件生产的工程资料，申请方至少提供顶层图纸、图纸目录（含零部件图版次）、工艺规范目录（含版次）、材料标准目录和标准目录等，以便审查代表确认设计构型和预批准。若对于某项工艺规范或材料标准审查代表要进一步审查，申请方应提供所需资料。

6.2.4.2 ACAC 向供应商提供的构型控制指南或等效文件

6.2.4.3 ACAC 与供应商之间的构型控制程序

6.2.4.4 供应商内部的构型控制程序

6.2.5 合格审定大纲

6.2.6 专项合格审定计划

6.2.7 型号合格审定过程中的设计更改评审和制造符合性检查²

6.2.8 ACAC 对供应商设计的产品的持续适航责任的考虑

6.3 供应商对型号合格审定过程的支持

6.3.1 研制计划

² 供应商交付的系统、零部件和设备（包括软件），原则上应 100% 完成进口制造符合性检查。检查方式分为三种：入厂接收检验时检查，CAAC 在供应商设施检查，委托国外适航当局检查。

交付件的类型分为三种：具备 TC 证和 TSOA 证的设备，非 TSOA 件，机体结构件等。分别情况进行制造符合性检查：

- a) 具备 TC 证和 TSOA 证的设备，表明已在适航部门的控制之下，接受国外适航部门颁发的适航放行标签或制造符合性检查放行标签；申请人提供质量证明文件及其相关文件；在申请人入厂检验时，CAAC 进行制造符合性检查。
- b) 非 TSOA 件
 - 1) 对于重要的非 TSOA 件，如果入厂检验时无法确认其制造符合性，就由审查组确定制造符合性检查项目，在供应商设施进行检查；或者委托国外适航部门在供应商设施进行检查。
 - 2) 如果是 PMA 件，随交付件能够提供国外适航部门颁发适航放行标签或制造符合性检查放行标签，就在申请人入厂检验时，CAAC 进行制造符合性检查。
 - 3) 其余非 TSOA 件，申请人提供质量证明文件及其相关文件；在申请人入厂检验时，CAAC 进行制造符合性检查。
- c) 机体结构件，在离开供应商之前，必须获得制造符合性检查放行标签。由审查组确定制造符合性检查项目，在供应商设施进行检查；或者委托国外适航部门在供应商设施进行检查。

除审查组确定监控的供应商试验外，其余供应商有关的试验由总设计师系统按程序控制，至少提供试验大纲和试验报告给审查代表。

对于审查组确定监控的供应商试验，试验件的制造符合性检查和试验设施的制造符合性检查，审查组在试验开始前一并进行，或者委托国外适航部门进行监控检查。试验件生产的过程检查由申请人控制。

6.3.2 详细合格审定支持计划

6.3.3 计划实施监控

6.3.3.1 计划完成的判据

6.3.3.2 计划更新和重新协调的程序

6.3.3.3 计划完成状态定期报告程序

6.3.4 制造符合性检查³

6.3.4.1 检查项目的确定和检查计划制定

6.3.4.2 计划的实施监控

6.3.4.3 制造符合性检查的完成状态

7. 附则

7.1 本程序由中国民用航空总局航空器适航审定司负责解释。

7.2 本咨询通告自 2007 年 1 月 5 日起施行。

³ 委托美国联邦航空局进行制造符合性检查工作的程序见附件 1。制造符合性请求单见附件 2，等同于《型号合格审定程序》(AP-21-03)的“制造符合性检查请求单”，表 AAC-121(08/2002)。

**PROCESS GUIDELINES FOR CONFORMITY INSPECTION SUPPORT
TO CAAC ON ARJ-21 PROGRAM**

I. INTRODUCTION

The Bilateral Airworthiness Agreement (BAA) Schedule of Implementation Procedures between the United States of America (U.S.) and China provides for mutual cooperation and for the Federal Aviation Administration (FAA) to provide technical assistance to the General Administration of Civil Aviation of China (CAAC) for aeronautical products being manufactured in the U.S.

It further provides for designated officials within the FAA and CAAC to make special arrangements as they deem necessary. Under this agreement, the joint policy of the FAA and the CAAC, in matters concerning type certification, is to minimize the burden of dual certification and to provide mutual assistance and cooperation in certification programs within the scope of the bilateral agreement.

CAAC has identified approximately 12 suppliers in the United States where conformity inspection support for prototype components to the new Chinese

regional jet, the ARJ-21, will be required.

II. PURPOSE

The purpose of this document is to detail the expectations and requirements of FAA and CAAC when the FAA agrees to perform conformity inspections upon request of CAAC at facilities in the United States. (At this time, no test witnessing activities are included in the scope of cooperation for the ARJ-21 project.)

III. PROCESS

Conformity Inspection Requests

1. At the request of CAAC, the FAA may perform conformity inspections, on behalf of CAAC, on parts and assemblies manufactured by companies within the USA in support of CAAC ARJ-21 Program. These activities may include:
 - a. conformity verification of pre-certification hardware,
 - b. review of special processes,
 - c. verification of component assembly builds, and

- d. verification that test articles have been conformed
2. The FAA may use its current methods of inspection and documentation in performing the functions described in paragraph 1.
3. CAAC will provide the FAA Directorate/Manufacturing Inspection Office (MIO) with an official request, which clearly identifies:
 - 1) the company,
 - 2) location,
 - 3) part number,
 - 4) drawing and drawing revision level.

In addition, the official request will include a CAAC point of contact (including email) and address, and a reference (tracking) number.

NOTE: FAA will not proceed with any requests that do not contain the complete information above.

Any other data necessary to conduct the inspection will also be provided. CAAC's request will include any special instructions or special emphasis items that the FAA should consider while performing the specific task. For example, the FAA may be asked to verify critical drawing dimensions, interface dimensional requirements, plating, heat treating, welding, assembly

processes, etc. Please note that conformity requirements during a type certification program vary and the FAA will perform only the inspections specifically indicated by CAAC.

4. CAAC will transmit its request to the responsible FAA Manufacturing Inspection Office (MIO) which has geographic responsibility for the location of the part or appliance manufacturer for processing. See Attachment A.

Conducting the Conformity Inspections

1. The FAA MIO may delegate the request to the appropriate Manufacturing Inspection District Office (MIDO). The responsible FAA MIO/MIDO will acknowledge CAAC's request via email confirming that a specific function can or cannot be undertaken by the FAA or its designees.
2. The FAA MIDO or its designee shall obtain a complete FAA Form 8130-9, Statement of Conformity, before conducting any inspection. The FAA Form 8130-9 must be signed by a representative of ACAC, the applicant or a U.S. representative from the manufacturer (the supplier of parts to the applicant) who has been authorized in writing to act as an agent for the ACAC. For those occasions when the FAA Form 8130-9 is to be completed and signed by an authorized representative at the U.S. supplier,

the FAA Form 8130-9 must be accompanied by a copy of the representative's authorization letter. Instructions for completing FAA Form 8130-9 are contained on the reverse side of the form.

3. The FAA or its designee shall document, in detail, all conformity inspections conducted and include the CAAC reference number (provided with the request for conformity) on all documents. The FAA will use Form 8100-1, Conformity Inspection Record, to document any conformity inspections.

NOTE: The FAA shall ensure that any unsatisfactory conditions/deviations noted during the conformity inspection are documented on the Conformity Inspection Record. All non-conformances shall be reported to CAAC prior to any certification testing. Unsatisfactory conditions must be coordinated with CAAC, or their delegate, for further disposition.

4. Upon completion of the conformity inspection, CAAC expects that the FAA or its designee will complete FAA Form 8130-3, Authorized Release Certificate. The completed FAA Form 8130-3 must also contain the CAAC reference number. It must clearly indicate "conformity only" in block 13 and non-approved design data specified in block 14. With this form, the FAA is certifying that the part/assembly conforms to CAAC type

design requirements, except as listed.

5. The FAA MIDO will forward all documentation supporting the inspection to the CAAC requesting office as soon as possible after the inspection is completed. The Conformity Inspection Package shall include:
 - a. a copy of each FAA Form 8130-3 issued;
 - b. a copy of the CAAC request for conformity inspection;
 - c. the original FAA Form 8130-9, *Statement of Conformity*;
 - d. *Conformity Inspection Record* (the original FAA form 8100-1 used to document the details of the conformity inspection);
 - e. any documents which support the conclusion of the conformity inspection, for example, material certification documents, manufacturing travelers, manufacturer's inspection records, etc.

IV. DOCUMENTS

All documents and correspondence relating to conformity inspections conducted by the FAA shall be in the English language.

V. IMPLEMENTATION

FAA Technical Assistance Branch and CAAC ARJ21 Project Management will exchange feedback on how this process is working in order to improve the quality and timeliness of conformity activities.

FAA Manufacturing Inspection Offices

Engine and Propeller Directorate Manufacturing Inspection Office

For the States of: Connecticut, Delaware, Maine, Maryland, Massachusetts,
New Hampshire, New Jersey, New York, Pennsylvania,
Rhode Island, Vermont, Virginia, and West Virginia.

ANE-180

12 New England Executive Park

Burlington, MA 01803

Telephone: 1-781-238-7180 email: carlos.pestana@faa.gov

Fax: 1-781-238-7199

Rotorcraft Directorate Manufacturing Inspection Office

For the States of: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ASW-180

2601 Meacham Blvd.

Fort Worth, TX 76137-4298 email: jerry.strentz@faa.gov

Telephone: 1-817-222-5180

Fax: 1-817-222-5136

Small Airplane Directorate Manufacturing Inspection Office

For the States of: Alabama, Alaska, Florida, Georgia, Illinois, Indiana, Iowa,
Kansas, Kentucky, Michigan, Minnesota, Mississippi,
Missouri, Nebraska, North Carolina, North Dakota, Ohio,
South Carolina, South Dakota, Tennessee, and Wisconsin.

ACE-180

901 Locust

Room 301

Kansas City, MO 64106-2641 email: james.jackson@faa.gov

Telephone: 1-816-329-4180

Fax: 1-816-329-4157

Transport Airplane Directorate Manufacturing Inspection Office

For the States of: Arizona, California, Colorado, Hawaii, Idaho, Montana,
Nevada, Oregon, Utah, Washington, and Wyoming.

ANM-108

1601 Lind Avenue, SW

Renton, WA 98055-4056

Telephone: 1-425-227-2108 email: kevin.mullin@faa.gov

Fax: 1-425-227-1320

附件 2

Print Form

REQUEST FOR CONFORMITY	General Administration of Civil Aviation of China (CAAC)
CAAC Tracking No: _____	Date: <input style="width: 150px;" type="text"/>
To: _____ Attention: _____	
Request for Conformity Inspection	
<input type="checkbox"/> Part Conformity _____	Certification Program: _____
<input type="checkbox"/> Installation _____	
<input type="checkbox"/> Other _____	Project No.: _____
A conformity inspection pertaining to the subject is requested for the following:	
Applicant Name: _____	
Company Name: _____	
Address: _____	
Contact Name: _____	Phone: _____ Fax: _____
Time/Date Available: _____	<input type="checkbox"/> Company will contact FAA
Type Installation: _____	
Make/Model: _____	Quantity: _____
Requesting Document (P.O.) and Date: _____	
Design Data: (with Revision/Date): _____	

Special Instructions: <u>The conformity inspection must be carried out in accordance with the drawings specified.</u>	

Remarks:	
Please attach authorization letter for any disposition of a deviation. For deviations not satisfactorily dispositioned contact the CAAC focal below.	
<input style="width: 600px; height: 20px;" type="text"/>	
Conformity Documents: (Please return this request for conformity with the following conformity document(s) to CAAC)	
<input type="checkbox"/> 8130-3 Tags Required	<input type="checkbox"/> FAA Form 8100-1 Required
<input type="checkbox"/> _____	<input type="checkbox"/> FAA Form 8130-9 Required
CAAC Contact Name: _____	
E-mail: _____	Telephone: <input style="width: 100px;" type="text"/> Fax: <input style="width: 100px;" type="text"/>

AAC-121E(08/2002)