

课程控制文件 COURSE CONTROL DOCUMENT (CCD)					
课程名称 Course Title	民用飞机复合材料修理基本技能培训 Basic Skill Training of Composite Repair in the Civil Aviation Aircraft				
课程类别 Type		课程代码 Course Code		版本号 Version	
审核人 Reviewed		批准人 Approved		批准日期 Date	

总课时: Duration	56课时 56 Hours	方法: Method	课堂理论+实操 Lecture and OJT
培训对象: Target Group	非金属结构与复合材料修理工作相关人员, Personnel whose job relate to the non-metallic structure and composite maintenance in the airplane.		
人员要求: Prerequisites	已完成金属结构修理基本技能培训,从事飞机复合材料结构修理的人员。 Personnel whose job relate to the composite maintenance in the airplane. And who should have completed the training of Metallic Structure Maintenance Basic Skill.		
目的: Goal	根据CCAR145.23、AC-66R1-03以及FAA/AC 65-33等法规,对直接从事航空器维修人员的培训要求。从事与飞机复合材料维修相关的技术人员,需掌握飞机复合材料维修的总体知识与基本技能,熟悉损伤类型与检查方法,以及熟悉飞机复合材料修理的工艺。 According to CCAR145.23/AC-66R1-03 and FAA / AC 65-33, the Composite Maintenance Technicians should master the basic knowledge and operation skills of composite maintenance, familiar with the damage detection and inspection, and familiar with the composite repair processes.		
目标: Objective	完成这个课程的培训后,学员将能够: 1、了解飞机复合材料的材料特性以及修理与维护的基本知识。 2、熟悉飞机复合材料的存储要求和结构损伤的类型与检查方法,了解检查工具仪器的使用要求与应用。 3、掌握复合材料修理的工艺要求。 4、树立良好的安全意识与职业素养。 Upon completion of the training course, the participant will have: 1. Understand the basics of composite materials technology, maintenance and repair. 2. Familiar with the composite storage, damage types, inspection and characterization. Understand the notice and usage of composite tools and appliance. 3. Master the composite repair process. 4. Establish the good safety awareness and profession quality.		
考试/评估: Examination/ Evaluation	考试包含有理论与实操的考核。理论考试以闭卷形式进行,每个课程结束后都有考试,考试必须达到80分才合格。实操考核必须完成所有操作项目,并评估合格。 A close-book written examination will be held at the end of the course, Minimum passing score is 80%. The practical assessment should accomplish all the items and pass the evaluation.		
教材: Training Material	SRM, 复合材料总体知识技能培训课件 SRM, The document of general knowledge and skill for composite maintenance technicians		
备注: Remarks	(1) 为保证复合材料维修人员技能的持续有效性,复合材料维修人员应在两年内进行此课程的重温培训。执行一项在培训中心的督导下进行的实操评估,或者在两年内执行(或参与)至少六项相关修理工作。		

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	<p>(2) OJT 培训: 按照飞机维修(结构专业)新员工岗前实操记录手册要求项目完成, 由车间师傅落实并签名。</p> <p>(3) 具有两年(含)以上飞机维修岗位工作经验并且半年的维修经验是在最近一年中获得的人员或持有飞机维修基础执照人员, 在通过本 CCD 所涵盖的课程内容的笔试和实操评估后, 可被视为等同完成本 CCD 所列课程内容的培训。</p> <p>(1) Composite repair personnel should demonstrate continued competence every 2 years by performing a repair or by performing a practical assessment under the direct supervision of an examiner authorized and designated by the organization or by having participated in or performed at least six composite repairs in the 2-year period.</p> <p>(2) OJT training: According to the aircraft maintenance (structure) new employees pre-post practical manual demand, the masters sign their names on the book.</p> <p>(3) If the people have a minimum of 2 years maintenance experience which is at least 6 months experience in the past 12 months, or they have a CCAR66 STR, ME or AV License, it's seems that they have already finished all the courses when they have passed the exams and evaluation demanded by this course control document.</p>
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	课程内容	课程分类	课时(H)
1	复合材料的基本概念和常见修理举例/composite material basic knowledge and repair examples	复合材料基本技能培训 Composite Basic Skill Training	8
2	复合材料的存储, 损伤类型及检查方法与工具的介绍/ Introduction of composite materials storage, damage types, inspection and tools.		4
3	湿法铺层, 预浸料修理与金属粘接及真空袋制作/Wet layup repair, prepreg repair ,metal bond repair and make the vacuum bag		16
4	复合材料层压结构的粘接修理与钛合金铆接修理/Composite laminate bond repair and bolt repair.		20
5	固化机的使用和固化程序的了解/Hot bond unit usage and control the process		4
6	复习和考试/Review and Examination		4
7	Total/总计		56