



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

**ORDER
8000.93**

Effective
Date: 1/31/2007

SUBJ: Aircraft Certification Service National Technical Training Plan

FOREWORD

This order (hereafter referred to as the AIR Training Order) identifies minimum training requirements for Aircraft Certification's technical and safety related workforce that supports the needs of individual full service offices (FSO). This includes initial and mandatory training identified as part of the Aircraft Certification Service's (AIR) Technical Training Program.

This order also provides guidance for all employees and their immediate supervisors to use when identifying individual training needs, including course prerequisites and equivalencies; the requirements to request a waiver; and the AIR requirements for course attendance.

/s/

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CHAPTER 1. GENERAL INFORMATION

100. **Purpose.** This order provides guidance for the Aircraft Certification Service's (AIR) employees and their managers to use when identifying organizational and individual employee training needs in support of individual full service offices (FSO). This order is used in combination with the AIR Technical Training Requirements Summary Table to ensure compliance with service level training requirements for technical employees. Supplemental training guidance for Flight Test Pilots/Engineers is identified in Order 8110.41, FAA Flight Test Responsibilities, Procedures, and Training. This order is reviewed annually by the Human Resources and Training Development Branch (AIR-510) in coordination with AIR Management teams and AIR Training Managers (ATM).

101. **Who This Order Applies To.** The following AIR technical employees, safety related employees and their managers must comply with the requirements of this order. This order shall be used by supervisors and their employees to identify and prioritize individual employee training needs in preparation for the annual call for training.

a. Technical employees covered in this order include aviation safety inspectors (ASI), aerospace engineers (ASE), flight test pilots (FTP), flight test engineers (FTE), transportation industry analysis officers, air traffic control specialists, and social sciences human factors.

b. Safety related employees covered in this order include technical writers/editors.

c. Managers of technical and safety related employees.

102. **Cancellation.** Order 8000.32, National Training Plan for Aerospace Engineers, Flight Test Pilots, and Program Support Specialists, dated July 29, 1986, is canceled.

103. **Background.**

a. The increasing requirements for certification of aircraft utilizing new technology concepts in design and construction make it essential that the knowledge and skills of the AIR's technical safety related workforce be developed and maintained to a high level of proficiency. This requires training in state-of-the-art technical developments, job functions, project management, human relations, and other general training.

b. This order consolidates AIR technical training requirements, roles and responsibilities, and requirements identification guidance from the AIR Training Guide into one order. This order will be used by the employee and his/her supervisor to identify individual training needs, establish training priorities, and assist in budgetary planning for training.

104. **Related Publications**

a. **AIR Technical Training Requirements Table** – The current listing of AIR Technical Training Requirements is maintained on the employees.faa.gov website under Aircraft Certification Service/Technical Training Program.

b. **AVS Competency Awareness and Training QMS Procedure, AVS-001-012**

105. **Definitions**

a. **AIR Technical Employee** – for the purpose of this order, includes aviation safety inspectors (ASI), aerospace engineers (ASE), flight test pilots (FTP), flight test engineers (FTE) and transportation industry analysis officer, air traffic control specialists, and social sciences human factors employees.

b. **Continuing Development Training** – is training that is not considered necessary to perform a basic job function, but may be beneficial to enhance workforce performance or to prepare for future job assignments.

c. **Electronic Learning Management System (eLMS)** — The Department of Transportation (DOT) system of record for all employees' training histories. It is the employee's responsibility to ensure the accuracy and completeness of the information captured in eLMS.

d. **Equivalency** – approved substitution for an AIR training requirement. Equivalencies are determined on a course by course basis.

e. **Full Service Office (FSO)** – The knowledge and skills needed for individual employees to provide all the products and services demanded by the unique customer base of the service unit. This means that an operational perspective takes precedence over an individual employee's desire for training.

f. **Grandfather Clause** – a waiver that may be granted to employees who have seven or more years of continuous service and successful performance, both within the Aircraft Certification Service. This waiver only applies to training identified in the AIR Technical Training Requirements Summary Table as "Initial" (e.g., Indoctrination Basics, Indoctrination Applications, Core Job Functions), with the notable exception of the Part 21 course. For those employees for whom the Part 21 course is identified as "Initial," Part 21 cannot be waived under any circumstances

g. **Initial Training** – is training required of AIR technical employees within the first 24 months of service. Initial training may also be required of safety related employees when the supervisor deems training necessary for their job functions. Initial training is optional for all other AIR employees.

h. **Mandatory Training** – for the purpose of this order, is training required by an AIR order or policy, and/or updates to orders or policy (as mandated by memorandum from a directorate/division manager or policy owner). This includes, but is not limited to, training which is required on a recurring basis and may take the form of informational briefings designed to bridge the

gap between old and new policy. No exceptions or waivers are permitted for mandatory training unless specified in the applicable order or policy. Note: Other organizations (DOT, FAA, or AVS) may mandate training in a policy; however, only training mandated by Aircraft Certification is covered in this order.

i. Position Essential – is AIR technical training assigned by management and is essential to performing a job function carried out by an employee. Note: Even though a course may not be a service requirement, individual directorate/division managers may designate it as position essential for his/her directorate/division personnel.

j. Prerequisites – Training, briefings, readings and/or other informal workshops required in advance of attending another course. (See Waiver definition below)

k. Proficiency – Maintaining the level of competence necessary to successfully perform work.

l. Recurrent Training – is training required on an ongoing basis in order to maintain proficiency. Recurrent training intervals are determined by an order, regulation, or by the Director of the Aircraft Certification Service.

m. Safety related employee – This includes technical writers/editors.

n. Waiver – is a request: to substitute work experience, education, and/or other outside training in lieu of position essential training; to alter the sequence in which training is taken; or to substitute alternatives to training attendance until training can be completed. Management must document its rationale in accordance with the Waiver process guidance located in Chapter 3: Prerequisites, Waivers and Course Attendance Procedures.

106. Roles and Responsibilities

a. Course Mentor is the management representative on the training development team who, relevant to this order, is responsible for working with the policy owner to ensure training requirements are communicated to each directorate/division as new courses are developed or revised. This includes, at a minimum, target audience, any prerequisites and/or equivalencies, and whether the course is mandatory, position essential, or continuing development at the service level.

b. Human Resources and Training Development Branch, AIR-510, in conjunction with AIR Management teams and the AIR Training Managers, is responsible for reviewing and updating this order, the AIR Technical Training Requirements Summary Table and AIR Training Guide annually or as needed.

c. Supervisors/Managers are responsible for identifying and prioritizing training needs of their employees and FSO. They link organizational goals to on-the-job knowledge, skills, and abilities required by the mission of their organization or FSO. Through the Annual Call for Training Process, supervisors prioritize all FSO/directorate/ division requirements.

d. Employees are responsible for notifying their supervisor of any training needs and ensuring they complete any initial and any mandatory training requirements related to their job function(s). Employees identify areas in which knowledge or skills could be acquired to improve their present job performance and/or may be required to perform specific job functions. This may include self-development activities which would broaden knowledge and skills. Employees are responsible for verifying accuracy of training completion information in eLMS. For any missing training history information, employees must provide proof of training completions to their AIR Training Manager.

e. AIR Directorate/Division Training Managers (ATM) provide training information and resources to directorate/division employees; advise managers and employees on training policies and guidance; and manage the annual Call for Training process within their respective directorate/divisions.

107. **Records Management** Refer to Orders 0000.1, FAA Standard Subject Classification System; 1350.14 Records Management; and 1350.15, Records Organization, Transfer and Destruction Standards or your office Records Management Officer or Directives Management Officer for guidance regarding retention.

CHAPTER 2. TRAINING REQUIREMENTS IDENTIFICATION PROCESS

200. **Assessment of Need.** Each FAA-funded learning and development activity must be based on an objective assessment of need. This requires a clear justification that the funded activity will improve or enhance individual and/or organizational performance. As a part of the training requirements identification process, each directorate/division analyzes its own operational requirements and policy drivers to determine FSO needs. Policy drivers are the principal statutory and regulatory requirements that identify training policy and procedures. Each office also considers other mandates in assessing their office needs, such as directives or standard operating practices, congressional mandates, comptroller decisions, and union agreements.

a. Employees work with their supervisor/manager to identify training needs based on current/anticipated duties and responsibilities, and jointly review their training records to ensure all initial/mandatory training requirements have been completed or scheduled. (Note: The employee must receive their supervisor's approval in advance for any training taken during duty hours or requiring the use of government resources.

b. Supervisors/managers identify organizational training needs and also work with employees to identify individual employee training needs. Identification of individual employee training needs should be completed and documented:

- (1) Within 30 days of employment for a new employee, and
- (2) As part of the annual and mid-year performance evaluation reviews for all other employees.

c. AIR Directorate/Division Training Managers (ATM) provide training information and resources to directorate/division employees; advise managers and employees on training policies and guidance; and manage the Annual Call for Training process within their respective directorate/divisions. In addition, ATMs work with the supervisor to populate the employee's learning plan in eLMS where the learning events identified have an associated eLMS item number.

201. **Identification of the organization's training needs.** Once annually, a specific plan is developed to accommodate training needs for the next fiscal year. A process called the "Annual Call for Training" is a tool used to identify those training needs and facilitate the scheduling/procurement of training events to accommodate the needs. For technical and non-technical subjects, supervisors/managers assess whether or not their FSOs have the minimum competency in the identified subject areas to accomplish the work that is planned for the next fiscal year. The ATM in each directorate/division will provide the supervisors/managers with the resources to use to identify organizational training needs. In identifying training needs for the next fiscal year to support the FSO, supervisors/managers should consider the following factors:

a. Training requested for the current FY that has not yet been scheduled. This training should only be carried over to the following FY if it is still needed, and it is certain that the training will not be scheduled during the current FY.

b. New hires (new employees).

- c. New work.
- d. Changes in technology.
- e. Disappearing work.
- f. Assignment changes.
- g. Retirements/Attrition.
- h. Employee input.
- i. FSO Concept.
- j. Time out of office (in terms of each individual employee and the cumulative impact on the office) re: operational requirements.
- k. AIR/AVS training requirements.
- l. New courses.
- m. Flight test guidelines/requirements.
- n. Training available through other than formal courses (e.g. details).
- o. Amount of training that can be reasonably supported by the organization during the next FY. It is important to look at the “big picture” to include time out of the office, etc.

202. **Identification of employee training needs.** The supervisor works with the employee to identify any initial, mandatory, position essential or continuing development training for the individual employee. The following steps should be used to determine if any training is required and if so, the type of training required (steps also illustrated in figure 1):

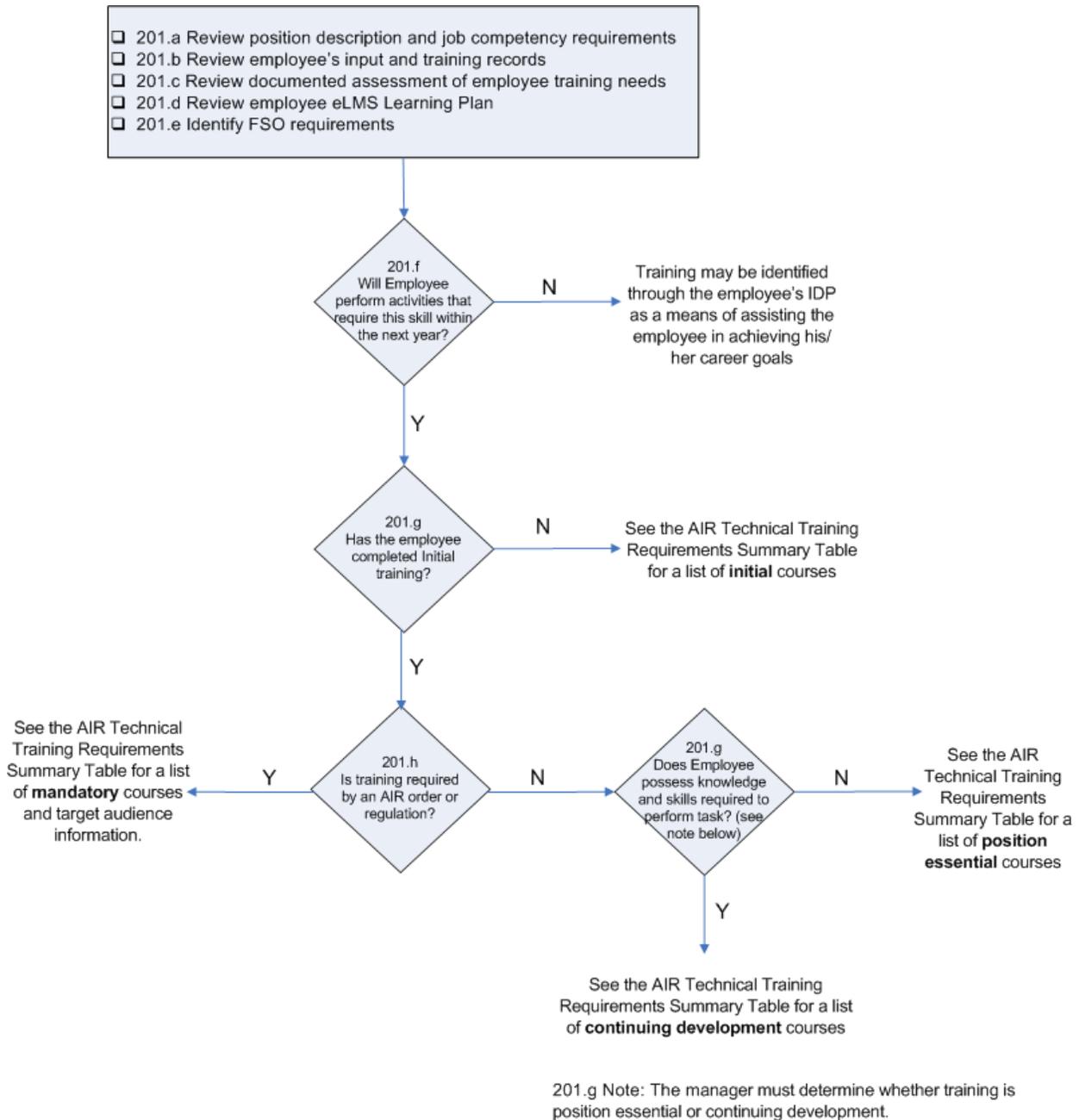
- a. Review position description or level definition and job competency requirements.
- b. Review employee’s input and training records.
- c. Review documented assessment of employee training needs.
- d. Review employee eLMS Learning Plan.
- e. Identify FSO requirements.
- f. Will the employee perform activities that require this skill within the next year? If no, this training may be identified through the employee’s Individual Development Plan (IDP) as a means of assisting the employee in achieving his/her career goals.
- g. Has the employee completed Initial training? If not, see the AIR Technical Training Requirements Summary Table for a list of Initial courses.

h. Is training required by an AIR order or regulation? See the AIR Technical Training Requirements Table for a list of mandatory courses and target audience information.

i. Does the employee possess the knowledge and skills required to perform the task? The manager must determine whether training is position essential or continuing development.

j. Does this training update or enhance required skills? If yes, the training is considered continuing development.

FIGURE 1. STEPS TO IDENTIFY EMPLOYEE TRAINING NEEDS



A current listing of initial, mandatory, position essential and continuing development training requirements is available in the document titled “AIR Technical Training Requirements Summary Table,” maintained on the employees.faa.gov website under Aircraft Certification Service/AIR Technical Training Program.

203. **Determine training priorities.** Training priorities distinguish the operationally essential (true need) training requirements from all other training requirements. Operationally essential training includes mandatory and initial training. These priorities are determined by the manager/supervisor and provide an objective means to determine the criticality of the training requirements. Note: The training priority shall be assigned to each training need identified. Our priorities in Aircraft Certification, as they apply to both FAA and out-of-agency training, are:

Priority 1	The minimum training required by AIR technical employees and AIR safety related employees to achieve the service mission in individual full service offices (FSO). The focus of Priority 1 training is to provide knowledge/skill to help the Service and its technical employees to do the following: <ul style="list-style-type: none"> • provide a safety management system to ensure continuous operational safety of aircraft; • work with aviation authorities, manufacturers, and other stakeholders to help them successfully improve the safety of the international transportation system; • administer safety standards governing the design, production, and airworthiness of civil aeronautical products; and • oversee design, production, and airworthiness certification programs to ensure compliance with the prescribed safety standards
Priority 2	The minimum training required by administrative and clerical staff, e.g., managers, program analysts, and secretaries, to achieve the Service/FSO mission. It includes operationally essential executive, management, supervisory, position essential and general training. This training, like Priority 1 is delivered for the organization to accomplish its mission.
Priority 3	This is additional training required to operate the FSO in an effective and efficient way. This priority covers training for all employees. Its goal is for the FSO to become operationally effective/efficient, rather than just achieving minimum training requirements identified in Priorities 1 and 2. The aggregate of Priorities 1, 2, and 3 represents the optimum training requirements of the organization.
Priority 4	This training, requested by employees and/or managers, is job related, but the focus is on the employee's needs and goals, not those of the organization.
Priority 5	This training includes all other training requested. It is not job related. An example is an inspector requesting to take a budget course that could help in the transition to a new career field.

204. **Document Annual Call for Training requirements for Directorate/Division.** Once the organizational and individual employee assessment of training needs has been completed, the final step for each division/directorate is to document their requirements in preparation for the service-wide annual call for training. The ATM in each directorate/division will provide the supervisor/manager with a worksheet to complete for all of the employees who report directly to him/her. At a minimum the worksheet will include employee name or position title, training items, priority of training items requested for each employee, training category (e.g initial, mandatory, position essential), as well as any out of agency training. Refer to appendix 1: training requirements summary worksheet for a sample format. Refer to the listing "AIR Technical Training Requirements Summary Table" for a list

of AIR-sponsored initial, mandatory and position essential training. This listing is located on the employees.faa.gov website under Aircraft Certification Service/AIR Technical Training Program. Completed worksheets are submitted to the ATM for the office.

205. **Annual Call for Training: Submitting Training Requirements to AIR-510.** AIR-510 initiates the service-wide Annual Call for Training process. ATMs consolidate and submit their division/directorate training requirements to AIR-510 using completed and approved worksheets from managers/supervisors. ATMs work with managers to ensure that training identified with an eLMS item number is added to the employee's learning plan. AIR-510 is responsible for consolidating the AIR-wide training requirements.

CHAPTER 3. PREREQUISITES, WAIVERS AND COURSE ATTENDANCE PROCEDURES

300. **Prerequisites.** All FAA course prerequisites must be met or temporarily waived (attendance sequence waived—see Waiver submission process below) prior to receiving training.

301. **Waiver Submission Process.**

a. A waiver may be requested in the following circumstances:

- (1) Grandfather clause (see definition)
- (2) To substitute work experience, education, and/or other outside training in lieu of position essential training. Management must document its rationale. (See a sample of the form in appendix 2: Request for Waiver)
- (3) To alter the sequence in which training is taken. For example, a waiver may be granted to request permission to attend the ACSEP course before the Part 21 course. This waiver does not exempt the employee from taking Part 21, but if granted, allows the employee to take ACSEP prior to Part 21.
- (4) To address alternatives to training attendance until training can be completed, a waiver of training may be considered as specified by AIR order or policy. For example, the Designee Management Policy stipulates that under certain conditions an employee who oversees designees can perform designee management functions with an assigned mentor until the employee has completed Designee Management training.

b. A written request must be submitted by the supervisor using the Request for Waiver form. The AIR Request for Waiver form is maintained on the FAA employee website under the AIR Technical Training Program. (See a sample of the form in appendix 2: Request for Waiver). A waiver request to alter the sequence in which training is taken (temporary waiver) shall be approved (signed) by the employee's immediate supervisor. All other waiver requests must include both the immediate supervisor and the division/directorate manager's signature.

c. The supervisor will submit this form to the ATM, and must include a statement of the reason for the waiver (justification). A request for waiver should be submitted (with justification) to the ATM no less than six weeks prior to the start of class. If the employee is identified as a candidate for the course during the 6-week period prior to the start date, the manager will submit the form at that time.

d. The ATMs will coordinate approval for all waivers with the appropriate supervisors and course managers and retain the original copy of the waiver. The course manager will work directly with the immediate supervisor to resolve any questions or concerns regarding waiver requests. In addition the course manager will maintain copy of the waiver request(s).

302. **Course Attendance**

a. All students are expected to attend training as scheduled, abiding by both course dates and class times. Students are expected to be on time and stay through the completion of the course.

They shall not make travel or other arrangements (e.g., to return home) that will result in an interruption of the scheduled training. If the student does so, he/she may not receive credit for attending the course and may have to re-take all or part of the course at a later date. Students are expected to coordinate missed class time with their supervisors, as well as with the class instructor to avoid loss of credit. If credit is lost, the course manager shall notify the appropriate ATM.

b. In cases involving illness, injury, emergencies, or other situations that are beyond the student's control, the course manager and the student's immediate supervisor will assess the situation and make a determination as to completion/credit results. Each situation will be evaluated on its own merits, in consideration of factors such as the total course time missed and the ability of the employee to make up work missed.

c. When a student is enrolled in a training course, but does not attend, the circumstances surrounding the non-attendance/cancellation are to be documented on the Training Non-Attendance Justification form. This form must be completed and signed by the immediate supervisor as soon as it is known that the employee will not be able to attend training. The original is provided to the ATM and a copy is to be maintained by the supervisor. (See a sample of the form in appendix 3: Training Non-Attendance Justification Form)

303. **Completion Credit.** Credit for course attendance is awarded to learners who successfully complete the prototype or regular scheduled offering, and includes completing all course exercises and activities. Learners participating in a course walk-through do not receive credit. All employee training is recorded in the eLMS system.

**APPENDIX 1. TRAINING REQUIREMENTS SUMMARY WORKSHEET
(SAMPLE)**

TRAINING REQUIREMENTS SUMMARY WORKSHEET															
Organization:	Prepared by:	Instructions: Enter employee name across top of page. Enter the appropriate Priority # (Per legend below) in the column under the employee name across from the course requested.	EMPLOYEE NAMES								TRAINING PRIORITY				
											PRIORITY 1	PRIORITY 2	PRIORITY 3	PRIORITY 4	PRIORITY 5
LEGEND															
0 - Employee trained															
1 - Priority 1 requirement															
2 - Priority 2 requirement															
3 - Priority 3 requirement															
4 - Priority 4 requirement															
5 - Priority 5 requirement															
Select the plus sign (+) to expand a training category.															
INITIAL TRAINING															
27963	AIR Indoctrination Basics														
21936	AIR Indoctrination Applications														
21016	Part 21														
21017	Core Job Functions-Skills for Success														
MANDATORY TRAINING															
23005	Designee Management for AIR and AFS Aircraft Certification Systems Evaluation Program (ACSEP)														
21415	Bloodborne Pathogens Awareness														
25837	Crew Resource Management (CRM) Initial														
12062	Flight Test Pilot Initial														
28083	Flt. Test Pilot/Engr Rec.														
28273															
AVS MANDATORY TRAINING															
POSITION ESSENTIAL															
FAA ACADEMY AND CMEL															
FAA FORM 8000-44 (1-07)															

**APPENDIX 2. REQUEST FOR WAIVER FORM
(SAMPLE)**

Request for Waiver Form	Aircraft Certification Service Technical Training Program
Name of employee for whom waiver is requested: _____	
Routing Symbol of employee: _____	
Name and Number of Item _____	
1. Indicate the type of waiver being requested:	
A Temporary Waiver of Prerequisite Requirement (requires immediate supervisor approval)	
<input type="checkbox"/>	To alter the sequence in which training is taken. For example, a waiver may be granted to request permission to attend ACSEP training before Part 21 training. This waiver does not exempt the employee from taking Part 21, but if granted, allows the employee to take ACSEP prior to Part 21.
<input type="checkbox"/>	To address alternatives to training attendance until training can be completed, a waiver of training may be considered as specified by AIR policy. For example, the Designee Management Policy stipulates that under certain conditions an employee who oversees designees can perform designee management functions with an assigned a mentor until the employee has completed Designee Management training.
Waive Item Attendance (requires both immediate supervisor and directorate/division manager's approval)	
<input type="checkbox"/>	Grandfather clause - a waiver that may be granted to employees who have seven or more years of continuous service and successful performance, both within the Aircraft Certification Service. This waiver only applies to training identified in the AIR Technical Training Requirements Summary Table as "Initial" (e.g., Indoctrination Basics, Indoctrination Applications, Core Job Functions), with the notable exception of Part 21. For those employees for whom Part 21 is identified as "Initial," Part 21 cannot be waived under any circumstances.
<input type="checkbox"/>	To substitute work experience, education, and/or other outside training in accordance with the AIR Technical Training Requirements Summary table and the Aircraft Certification Service National Technical Training Plan Order.
2. Management must document its rationale	
Justification for waiver (i.e. other training experience, FAA/industry experience, why satisfactory completion of training is predicted):	
3. Approval	
_____ Signature of Immediate Supervisor	_____ Date
Title/Routing: _____	Telephone: _____
For waiver of item attendance, the directorate/division manager's approval is also required	
<input type="checkbox"/> Concur	<input type="checkbox"/> Non-concur
_____ Signature of Approving Official (Directorate/Division Mgr. or Designee)	_____ Date
Title/Routing: _____	Telephone: _____
Original: Directorate/Division ATM cc: AMA-220	
FAA FORM 8000-45 (1-07)	



U.S. Department
of Transportation
**Federal Aviation
Administration**

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order 8000.93, AIRCRAFT CERTIFICATION SERVICE NATIONAL TECHNICAL TRAINING PLAN

To: Directive Management Officer, AIR-530

(Please check all appropriate line items)

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

In a future change to this directive, please include coverage on the following subject
(briefly describe what you want added):

Other comments:

I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

FTS Telephone Number: _____ Routing Symbol: _____