

ORDER

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AIR TRAFFIC SERVICES TRAINING

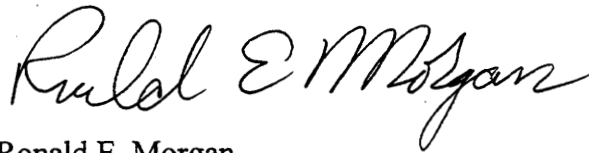


MAY 7, 1998

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

FOREWORD

This order describes responsibilities, delegates authority, and provides guidance for training in the Air Traffic Services (ATS) organization.

A handwritten signature in black ink, reading "Ronald E. Morgan". The signature is written in a cursive style with a large, stylized "R" and "M".

Ronald E. Morgan
Acting Associate Administrator for
Air Traffic Services

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CHAPTER 1. GENERAL

1-1. PURPOSE. This order describes responsibilities, delegates authority, and provides guidance for training in the Air Traffic Services (ATS) Organization.

1-2. DISTRIBUTION. This order is distributed to the division level in the Air Traffic, Airway Facilities, and Air Traffic System Requirements Services; the Offices of System Capacity and Independent Operational Test and Evaluation; the Office of Human Resource Management; FAA Academy and Technical Center; to the branch level in the regional Air Traffic, Airway Facilities, and Human Resource Management Divisions; and Air Traffic and Airway Facilities field offices.

1-3. BACKGROUND. Section 347 of the Department of Transportation (DOT) Appropriations Act, 1996, authorized the Federal Aviation Administration (FAA) to implement a new personnel management system. In accordance with this directive, Order 3200.9, Federal Aviation Personnel Directive, dated March 22, 1996, and the FAA Personnel Management System (PMS), dated March 28, 1996, implemented the FAA's personnel reform. Among other provisions, these directives authorize the lines of business to establish training and development programs, expend funds, and enter into training agreements with other agencies and non-government organizations. Additionally, the Federal Aviation Personnel Manual (FAPM) 410, Training and Development, dated December 19, 1996, defines responsibilities for the training and development of FAA employees.

1-4. STATUTORY AND REGULATORY AUTHORITIES. The Administrator and Management Board delegated responsibility for setting agency wide training policy to the Executive Steering Committee for Training and Development (ESCTD). The ESCTD's Strategy and Policy Subcommittee developed the policy directive, *FAPM 410*, which shall be incorporated in all FAA lines of business and staff organizations.

a. In 1996, the DOT Appropriations Act directed the FAA to implement a new personnel management system that meets the unique demands of the agency's work force. In accordance with this direction, the *FAA Personnel Management Directive* of March 22, 1996, provides a new policy framework for personnel management. *FAPM 410* defines responsibilities for the training and development of FAA employees and provides general administrative guidance. With the exception of requirements specifically retained, the *FAA Personnel Management Directive* supersedes Title 5, Chapter 41, of the United States Code and preceding legislation such as the Government Employees Training Act of 1958, and the Federal Workforce Restructuring Act of 1994.

b. Congressional training restrictions, enacted in Section 337 of Public Law 104-50, Department of Transportation Appropriations Act, 1996, and subsequent appropriations, establish requirements and limitations on the funding of employee training. This law requires that training be job related and based on needs assessment. Additionally, participants shall receive advance notice of training content and methods prior to the training, and end-of-course written evaluations shall be completed.

c. The Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972, Section 717(b), requires the establishment of training and education programs. The programs shall be designed to provide maximum opportunity for employees to perform at their highest potential.

1-5. DELEGATION OF AUTHORITY. Each Office and Service Director is delegated authority to issue training procedures and guidance for their organization.

1-6. RESPONSIBILITIES.

a. The Associate Administrator for Air Traffic Services:

- (1) Provides oversight for ATS training and development programs.
- (2) Ensures compliance with statutory and regulatory requirements, and the FAA Personnel Management System.
- (3) Ensures the training and development activities comply with the merit, equal employment opportunity, affirmative action, and diversity programs of the agency.
- (4) Ensures the ATS work force receives technical, supervisory, development, and general skills necessary to achieve agency and ATS strategic objectives.

b. The ATS Office and Service Directors or their designee shall:

- (1) Establish responsibilities, procedures, and guidance within their organization.
- (2) Identify training priorities.
- (3) Manage, conduct, and evaluate training.
- (4) Provide funds for employee development and training based on identified requirements.
- (5) Determine the requirement for a Continued Service Agreement as a condition of attending training of substantial duration or cost.
- (6) Ensure all agency-sponsored training directly relates to employees' current or anticipated duties, and provides the skills necessary to achieve agency and ATS strategic objectives.

(7) Ensure that all FAA-sponsored training and development, whether delivered in-house or out-of-agency, complies with statutory and regulatory requirements.

(8) Maintain accurate and complete records of all training activities and expenditures.

(9) Establish training and development activities that comply with the merit, equal employment opportunity, affirmative action, and diversity programs of the agency.

(10) Support the establishment of national and/or field learning councils.

(11) Ensure orientation for new employees.

(12) Support career planning and development of employees.

(13) Provide an annual compliance statement to the Associate Administrator for Air Traffic Services which provides assurance that applicable laws, regulations, and policies are observed.

CHAPTER 2. FINANCIAL PLANNING AND MANAGEMENT

2-1. OVERVIEW. This chapter provides an overview of the training budget cycle, including the procedures followed during the formulation and execution of the budget.

2-2. BUDGET FORMULATION AND EXECUTION. The initial estimates of funding requirements are made 2 years in advance of the beginning of that fiscal year. The estimates are refined over the course of the 2-year period according to changing needs and agency requirements. Offices and Services are authorized to move funds allocated to their training budgets within the assigned budget level. When formulating a budget, consider the following items:

- a. Travel and per diem of employees to the training site.
- b. Travel and per diem of instructors, if the training is conducted at work sites.
- c. Cost of training facilities, if FAA space is not available.
- d. Cost of training materials.
- e. Contractor, registration, or tuition costs.
- f. Cost of any special audio/visual equipment or special need equipment for students.
- g. Overtime costs.

2-3. FUNDING MANAGEMENT AND GENERAL TRAINING. Management and General (M&G) Training is funded from two sources. The Associate Administrator for Administration (AAD) provides centralized funding for training conducted by the Center for Management Development (CMD). Additionally, Offices and Services may use their operational budget to fund M&G training provided by either CMD or outside sources.

2-4. FUNDING TECHNICAL TRAINING. For technical training, Offices and Services are responsible for preparing cost estimates for the training requirements. Pricing information is based on the previous year's unfulfilled requirements plus projected training requirements for the upcoming year. The cost estimates must include travel, tuition, and overtime. Offices and Services may use their operational or Facilities and Equipment (F&E) funds for technical training (FAA Order 2500.4, Facilities and Equipment (F&E), Activity 5 Personnel and Related Expenses (PCB&T), dated 8/31/93; and FAA Order 2500.8A, Funding Criteria For Operations, Facilities and Equipment, and Research, Engineering and Development (R, E&D) Accounts,

dated 4/9/93). Cancellation of programmed training at the FAA Academy will not result in reallocation of the Personnel, Compensation, and Benefits (PC&B) back to the organization which programmed the training. However, supplies and equipment, contract support, if applicable, and travel will be reprogrammed.

2-5. CORE FUNDING. Certain "core" costs remain with AAD. These costs include central administrative support provided by the Office of Human Resource Management (AHR), the FAA Academy, basic operations at CMD, and funding for regionally directed locally arranged and conducted training. Requirements beyond those covered by "core" costs (e.g., certain course development) will be accommodated under fee-for-service arrangements.

2-6. CALL FOR TRAINING. Offices and Services within ATS shall identify organizational training requirements for inclusion in the annual call for training.

2-7. PROGRAMMING CONFERENCES. Programming conferences for both M&G and technical training are arranged and scheduled by the Offices and Services each fiscal year. Based on the training requirements identified in the calls for training, quota and class schedules are distributed to Washington headquarters and regions.

2-8. PROCUREMENT OF TRAINING. No employee, other than a Contracting Officer or a recipient of a Delegation of Procurement Authority (DPA), operating within the limits of their authority, may enter into formal contracts, authorize contract modifications or otherwise bind, commit, or obligate the Federal Government contractually for training. If it is anticipated that more than \$50,000 will be spent in a year on a particular training requirement through a non-Government vendor, competition procedures shall be followed. Regardless of the dollar amount or vendor, competition is the preferred method of procurement.

a. Prior to reusing the same training vendor, training must be evaluated to ensure the training is effective, efficient, cost beneficial, and complies with Congressional restrictions and Federal regulations. If a training vendor is reused, a cost comparison is not required. If a new training vendor is needed, the DPA recipient is responsible for providing three quotations for cost comparisons before the request is approved.

b. For more information on procurements, refer to: Section 337 of Public Law 104-50; Section T3.2.2.5 of the Acquisition Management System (AMS) and Section T3.2.2.5 of the Procurement Toolbox Guidance, both entitled Commercial and Simplified Purchase Method; and/or Order 1800.2 Evaluations, Appraisals, and Staff Studies.

c. Training may be procured by the following methods:

(1) Federal Government credit cards are the preferred method of payment for the purchase of commercially available/off-the-shelf training up to the limit of the individual's delegated authority (i.e., existing training that is regularly offered to the general public and/or Government personnel in the course of normal business operations). Purchases shall not be divided or "split" into two or more acquisitions to avoid the purchase/credit card threshold.

(2) SF-182's may be used for the purchase of commercially available/off-the-shelf training as stated in paragraph 2-8 c (1).

(3) Procurement requests may be used as an alternate method for acquiring training. Procurement requests should be issued on a fixed-price basis. An unpriced purchase may be issued for supplies or services for training when it is impractical to obtain pricing in advance of issuance of the purchase order.

(4) Third-party draft (TPD) is a Federal Government check drawn by the Government cashier. A TPD may be used to buy products and services for training when the vendor does not accept the purchase card. The TPD is intended for supplies and services, generally over the counter, immediately available in one transaction. The request should specify the name of the employee who will transact the purchase, and who will transmit the TPD to the vendor. The designated employee should hold a delegation of procurement authority. TPD's are commonly used in remote locations where an acquisition office is not readily available.

(5) Interagency agreements are used to obtain training from or through another agency, when that agency is in a position or equipped to supply, render, or obtain the training by contract.

2-9. PROCEDURES FOR MAINTAINING ACQUISITION AND PROCUREMENT TRAINING RECORDS.

a. **Official Order File.** DPA recipients shall establish an official order file in support of the training acquired under these procedures. The file may be organized on an individual basis for each transaction or as a master filing system in which all of the records would be combined in one file, easily accessible for acquisition planning purposes, reviews, and audits.

b. **Official Order File Documentation.** The official order file shall include the following documentation as applicable to the purchase:

(1) **Funds Certification.** DPA recipients shall obtain the signature of the accounting certification official/funds administrator in the "Agency Use Only" section of the SF-182 form as evidence of the availability of funds for obligation under the order. For the purpose of these procedures, an SF-182 or the Integrated Personnel and Payroll System (IPPS) Facsimile Form shall be considered an alternative agency purchase order form. If one of the signatories in Section D, Approvals, is also responsible for funds certification, a second signature need not be obtained. A notation to the effect that "the individual approving in Block #___ is also certifying the availability of funds for this purchase" is acceptable.

(2) **Price Reasonableness.** The DPA recipient is responsible for documenting the official order file with the basis for determining the price reasonableness of the training to be purchased (i.e., competitive quotations, comparison with competitive published price lists, published market prices, fixed catalog prices).

(3) **Small Business-Small Purchase Set Asides.** If a determination is made that there is no reasonable expectation of obtaining quotations from small businesses, the DPA recipient shall document the order file with the reason(s) for the unrestricted purchase.

c. **Sole Source Justification.** For requirements in excess of \$10,000, solicitations may only be limited to one source, if it is determined that it is the only source reasonably available, and if the price is determined fair and reasonable. If only one source is solicited, the official order file must be documented. Figure 2-1, Single Source Procurement Justification, may be copied and used to document the absence of competition. A sole source justification is not necessary when acquiring training from a Government source.

d. **Modifications.** In the event a change, revision, or modification that alters the fixed price of commercially available/off-the-shelf training is required to meet specific ATS requirements, either prior to or after executing an order for training services, the official order file shall be documented with supplemental information summarizing the changes (i.e., alterations, deletions, expansion, tailoring) required. The official order file shall also include a summary of the price negotiation, including the basis for determining that the price to be paid for modified commercially available/off-the-shelf training is fair and reasonable in relation to the established catalog or market price. DPA recipients may enlist the assistance of warranted contracting personnel in negotiating price adjustments when faced with changes to fixed-price, commercially available/off-the-shelf training.

2-10. ADMINISTRATION AND CLOSE-OUT OF OFFICIAL ORDER FILES. DPA recipients are responsible for ensuring that:

a. Training services are received and/or conducted in accordance with the terms of the order.

b. All necessary information is maintained and reported for all training obtained under these procedures.

c. Invoices are reviewed and approved for payment in a timely fashion in order to preclude the payment of interest under the provisions of the Prompt Payment Act (31 U.S.C. 3109 et.seq.).

d. Official order files shall be maintained for a minimum of 3 years after final payment.

2-11. RECORDS. DPA recipients shall maintain a control log for the purpose of tracking all orders issued when the acquisition is accomplished using an SF-182, IPPS Facsimile Form, or the Government purchase/credit card. As a minimum, the control log shall provide the name and address of the vendor, training date(s), title, and total price of the training acquired under these procedures. Any additional information required by human resources development organizations for tracking and reporting purposes must also be maintained.

FIGURE 2-1. SINGLE SOURCE PROCUREMENT JUSTIFICATION

PROCUREMENT REQUEST NO. _____

1. IDENTIFICATION OF THE AGENCY.
2. NATURE AND/OR DESCRIPTION OF THE ACTION BEING APPROVED.
3. DESCRIPTION OF THE SUPPLIES OR SERVICES REQUIRED TO MEET THE AGENCY'S NEEDS (INCLUDING ESTIMATED VALUE).
4. DEMONSTRATION OF THE PROPOSED CONTRACTOR'S UNIQUE QUALIFICATIONS OR THE NATURE OF THE ACQUISITION THAT DETERMINES THAT ONLY ONE SOURCE IS REASONABLE THAT CAN MEET THE REQUIREMENT.

5. DESCRIPTION OF THE EFFORTS MADE TO ENSURE THAT A SUFFICIENT NUMBER OF DATA SOURCES SHOULD BE QUERIED TO ENSURE VALIDITY OF THE DATA (I.E., ETHERNET, CBD NOTICE, PUBLIC NOTICE, ETC.)
6. DETERMINATION BY CONTRACTING OFFICER THAT THE ANTICIPATED COST TO THE GOVERNMENT WILL BE BASED ON THE FAIR MARKET VALUE (BEST VALUE TO THE FAA).
7. DESCRIPTION OF THE MARKET SURVEY, APPRAISAL OR ESTIMATE BY GOVERNMENT CONDUCTED AND THE RESULTS OR A STATEMENT OF THE REASONS THE AFOREMENTIONED WAS NOT CONDUCTED.
8. LISTING OF SOURCES, IF ANY, THAT EXPRESSED, IN WRITING, AN INTEREST IN THE ACQUISITION.

REQUIREMENTS COGNIZANCE

I CERTIFY AS TO THE CURRENT NEED FOR THE SPECIFIED
SUPPLIES OR SERVICES.

NAME _____
(TYPED OR PRINTED)

SIGNATURE: _____

TITLE: _____

ROUTING: _____

TELEPHONE: _____

DATE: _____

CONTRACTING OFFICER'S CERTIFICATION

I CERTIFY THAT THIS JUSTIFICATION AND APPROVAL ARE
ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND
BELIEF.

NAME _____
(TYPED OR PRINTED)

SIGNATURE: _____

TITLE: _____

ROUTING: _____

TELEPHONE: _____

DATE: _____

CHAPTER 3. CONGRESSIONAL RESTRICTIONS

3-1. PURPOSE. This chapter specifies procedures for maintaining official records to ensure compliance with the Congressional Restrictions that were first enacted in Section 337 of Public Law (P.L.) 104-50, Department of Transportation Appropriations Act, 1996, and subsequent appropriations.

3-2. CONGRESSIONAL RESTRICTIONS. "None of the funds in this Act may be obligated or expended for employee training which: (a) does not meet identified needs for knowledge, skills, and abilities bearing directly upon the performance of official duties; (b) contains elements likely to induce high levels of emotional response or psychological stress in some participants; (c) does not require prior employee notification of the content and methods to be used in the training and written end of course evaluations; (d) contains any methods or content associated with religious or quasi-religious belief systems or "new age" belief systems as defined in Equal Employment Opportunity Commission Notice N-915.022, dated September 2, 1988; (e) is offensive to, or designed to change, participants' personal values or lifestyle outside the workplace; or (f) includes content related to human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) other than that necessary to make employees more aware of the medical ramifications of HIV/AIDS and the workplace rights of HIV-positive employees."

3-3. PROCEDURES FOR MAINTAINING RECORDS.

a. Official File. Offices and Services shall specify the location(s) for records retention. The official file may be organized on an individual basis, or as a master filing system in which all records would be combined in one file, easily accessible for reviews, audits, and planning purposes. The file shall include, at a minimum, the following documentation:

- (1) Needs assessments for both individuals and groups.
- (2) Written notice of course content and methods of delivery.
- (3) End-of-course evaluations.

b. Sample Forms. The following sample forms ensure compliance with Congressional Restrictions. These forms may be modified or alternate forms may be used, provided they meet the requirements of the Congressional Restrictions.

- (1) Figure 3-1 Individual Training Needs Assessment.
- (2) Figure 3-2 Group Training Needs Assessment.
- (3) Figure 3-3 Notice of Course Content and Delivery Methods.
- (4) Figure 3-4 End-of-Course Evaluation.

c. **Records Retention.** Official records shall not be destroyed before 3 years. Some records may require extended retention, i.e., Occupational Safety and Health Administration (OSHA).

FIGURE 3-1. INDIVIDUAL TRAINING NEEDS ASSESSMENT

INSTRUCTIONS: Employees are required to complete this form to enroll in training. This form is not required for training specifically contained in an Individual Development Plan (IDP), or for training provided by the FAA Academy or Center for Management Development (CMD).

A. EMPLOYEE INFORMATION:

- | | |
|------------|---------------------|
| 1. _____ | 2. _____ |
| Name | Social Security No. |
| 3. _____ | 4. _____ |
| Work Phone | Routing Symbol |

B. COURSE INFORMATION:

- | | |
|--------------------|-----------------|
| 1. Title: _____ | |
| 2. Location: _____ | 3. Dates: _____ |
| 4. Vendor: _____ | 5. Cost: _____ |

C. INDIVIDUAL NEEDS ASSESSMENT: *Training must meet identified needs for knowledge, skills, and abilities bearing directly upon the performance of official duties (Congressional Restrictions):*

1. Training Objective(s): (Knowledge/skill(s) to be gained from this training)

2. How does training relate to current or anticipated duties?

3. How will training contribute to accomplishment of organizational goals and objectives?

4. How will this training improve performance?

5. What is the impact of not accomplishing this training?

D. TRAINING CERTIFICATION: The following Congressional Restrictions have been met: (1) the employee's identified needs for knowledge, skills, and abilities bear directly upon the performance of official duties; (2) the training does not contain elements likely to induce high levels of emotional response or psychological stress; (3) the employee(s) will receive prior notification of the content and methods to be used in the training and will be made aware of the requirement for a written end-of-course evaluation; (4) the course contains no religious or quasi-religious belief systems or "new age" belief systems; (5) the course is not designed to change participant's personal values or lifestyle outside the workplace; and (6) the course does not include content related to human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) other than that necessary to make employees more aware of the medical ramifications and the workplace rights of HIV-positive employees.

SIGNATURE OF AUTHORIZING OFFICIAL: _____

TITLE: _____

ROUTING SYMBOL: _____ **DATE:** _____

FIGURE 3-2. GROUP TRAINING NEEDS ASSESSMENT

INSTRUCTIONS: Organization managers must complete this form to assess the need for sponsoring, managing, funding, designing, or conducting group training.

A. SPONSOR INFORMATION:

Manager _____ Routing Symbol _____ Phone _____

B. DESCRIBE THE CURRENT SITUATION:

1. What actual skills, knowledge, and abilities are currently demonstrated?

2. What new skills are required?

C. DESCRIBE WHAT NEEDS TO CHANGE AND WHY:

1. Performance Problem:

2. Opportunity for new performance:

D. IDENTIFY TARGET POPULATION:

1. Type of positions needing training:

2. Location(s) of participants:

3. Number of participants:

E. DESCRIBE IMPACT IF DESIRED CHANGE NOT ACHIEVED:

F. IDENTIFY DELIVERY CONSIDERATIONS:

1. Performance time constraints:
2. Skill level constraints:
3. Funding constraints:
4. Complexity of requirements:
5. Others:

G. ASSESS VIABLE ALTERNATIVES TO TRAINING:

1. Written guidance:
2. Coaching:
3. CBI:
4. Other:

H. COST BENEFITS OF TRAINING:

I. TRAINING CERTIFICATION: The following Congressional Restrictions have been met: (1) the employee's identified needs for knowledge, skills, and abilities bear directly upon the performance of official duties; (2) the training does not contain elements likely to induce high levels of emotional response or psychological stress; (3) the employee(s) will receive prior notification of the content and methods to be used in the training and will be made aware of the requirement for a written end-of-course evaluation; (4) the course contains no religious or quasi-religious belief systems or "new age" belief systems; (5) the course is not designed to change participant's personal values or lifestyle outside the workplace; and (6) the course does not include content related to human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) other than that necessary to make employees more aware of the medical ramifications and the workplace rights of HIV-positive employees.

SIGNATURE OF AUTHORIZING OFFICIAL: _____

TITLE: _____

ROUTING SYMBOL: _____ **DATE:** _____

FIGURE 3-3. NOTICE OF COURSE CONTENT AND DELIVERY METHODS

ACTION: Confirmation Notice

FROM: Name of Organization, Routing Symbol

TO: (Name of Participant), (Organization and Routing Symbol)

THRU: (Participant's Supervisor), (Routing Symbol)

You have been selected as a participant for (name of event), scheduled for (dates of session), at (name of facility/hotel/conference room), located at (address of facility and phone number, if applicable). The session will begin at (start time of session).

Attached is a course description for your review (if course description is not attached, summarize content here). The method of delivery used will be lecture and small group discussions (specify as applicable). You will be asked to provide a written end-of-course evaluation which will be maintained in the official training file. This course has been determined to be in compliance with Congressional Restrictions.

(You may add any other pertinent information students need to know before attending the training.)

If you have any additional questions, please feel free to contact me at (telephone number of contact person).

(Name of Course/Program Manager)

Attachment(s), if applicable

FIGURE 3-4. END-OF-COURSE EVALUATION

Course Title: _____ Location: _____

Date: _____ Course and Class Number: _____

Instructions: Please circle the number which best expresses your reaction to each of the items below.

	Strongly Agree	Disagree
1. The course materials and content were directly related to the stated objectives. Comment: _____	1 2 3 4 5 6	
2. The material was presented in a well organized and objective manner. Comment: _____	1 2 3 4 5 6	
3. The amount of information covered in this training was sufficient. Comment: _____	1 2 3 4 5 6	
4. The visuals/videos were clear and understandable and supported the objectives. Comment: _____	1 2 3 4 5 6	
5. The training facility was comfortable and convenient. Comment: _____	1 2 3 4 5 6	
6. The instructor was knowledgeable of the course content. Comment: _____	1 2 3 4 5 6	
7. The training did not produce high levels of emotional response or psychological stress. Comment: _____	1 2 3 4 5 6	
8. My attendance at this training will help me to be more effective. Comment: _____	1 2 3 4 5 6	
9. I would recommend this course to others. Comment: _____	1 2 3 4 5 6	
10. Other comments:		

Trainee Signature (Optional)_____
Date

CHAPTER 4. SYSTEMATIC DEVELOPMENT OF TRAINING

4-1. OVERVIEW. This chapter establishes guidance for the systematic design and development of training for the Air Traffic Services (ATS).

4-2. NEW DEVELOPMENT OR REVISION OF TRAINING COURSES. Training shall be developed using a systematic approach based on needs assessment. The Instructional Systems Design (ISD) model (paragraph 4-4) is a systematic approach to developing training.

a. Course Documentation. The office responsible for training and resources shall provide guidance and direction on the use of documentation for national training programs. Course documentation, from the training proposal through the course report, shall be maintained in a course file.

b. Instructional Materials.

(1) Guidelines for Development. Offices and Services shall establish guidelines to standardize the development, content, and format of instructional materials.

(2) Lesson Plans. Standardized lesson plans shall be developed for all training courses and used by the instructors to deliver the training. Lesson plans shall state the lesson objectives, the essential information and practice exercises necessary to achieve the objectives, and the evaluation activities.

c. Revision of Training Courses. Responsible Offices and Services shall ensure that approved training courses are reviewed at least once every 3 years and revised to maintain currency. When equipment changes occur, affected training courses shall be revised.

4-3. ASSESSMENT OF COMMERCIAL OFF-THE-SHELF TRAINING MATERIALS. Before purchasing commercial off-the-shelf training materials, an assessment shall be conducted to ensure the materials achieve the training objectives. Assessments for national training programs shall be conducted by the office or service responsible. Assessments for regionally arranged and/or conducted training shall be conducted by the Training Program Management Officers (TPMO's).

4-4. PHASES OF THE SYSTEMATIC TRAINING DEVELOPMENT PROCESS. In the Systematic Training Development Process, each phase builds on the preceding phase to achieve the required training (Figure 4-1). The five phases are:

a. **Phase 1. Analysis/Planning** is the foundation for all other phases of instructional design. This phase defines the need for training and determines how to best satisfy the need, using specific research techniques such as needs assessment, job analyses, and task analyses. The final products of this phase may include a training proposal, training development plan, or an analysis report.

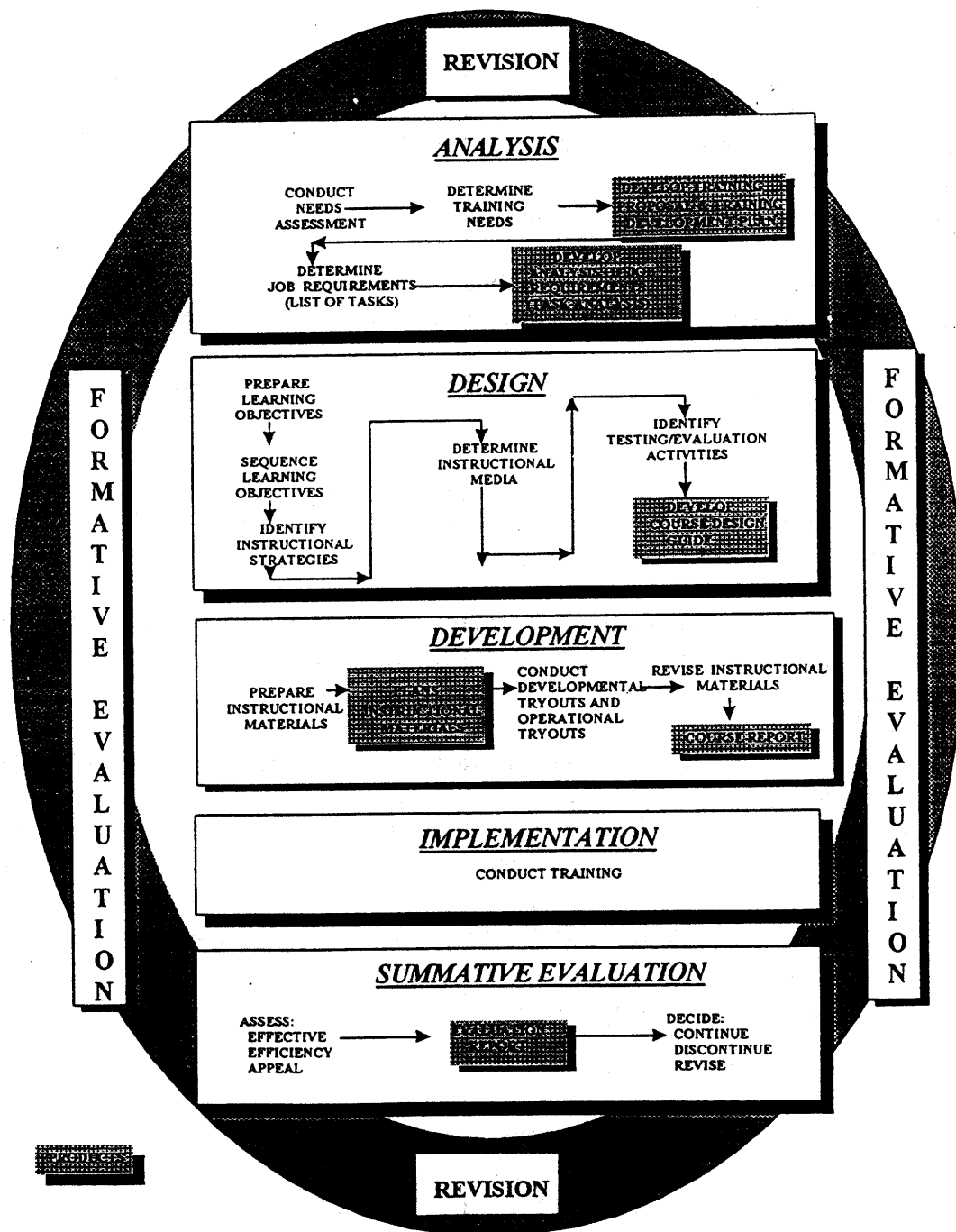
b. **Phase 2. Design** involves using the products from the Analysis Phase to plan a strategy for developing the training. Strategies may include media selection, location, and delivery mode (lecture, group activities, simulation, etc.). During this phase, outline how to reach the instructional goals determined during the Analysis Phase. Some of the activities of the Design Phase may include writing a description of the target population, conducting a learning analysis, selecting media and delivery system, and sequencing the instruction. The final products of this phase are a course design guide and a course schedule.

c. **Phase 3. Development** builds on the Analysis and Design Phases to generate lesson plans and materials. During this phase, all media and any supporting documentation are developed. This may include hardware (e.g., simulation equipment), software (e.g., computer-based instruction), and items such as exams, laboratory exercises, etc. **The course is validated after this phase** (see paragraph 4-5). The final products of this phase are instructional materials and a course report.

d. **Phase 4. Implementation** is the actual delivery of the instruction (e.g., classroom, laboratory, computer-based instruction, interactive-video teletraining, correspondence, on-the-job training, or some combination of these). This phase must promote the students' understanding of material, support mastery of objectives, and ensure the transfer of knowledge from the instructional setting to the job. The final product of this phase is a completed training course.

e. **Phase 5. Evaluation** measures the effectiveness and efficiency of the instruction. Responsible offices shall conduct both formative and summative evaluations. **Formative evaluations** are ongoing during and between phases and should include conducting one or more prototypes, developmental and operational tryouts. The purpose of this evaluation is to ensure technical accuracy, instructional soundness, and the accomplishment of course objectives. The **summative evaluation** occurs after instruction is implemented to assess the overall effectiveness and/or efficiency of the instruction. The decision to continue the use of the instruction is based on the results of the summative evaluation.

FIGURE 4-1. SYSTEMATIC TRAINING DEVELOPMENT PROCESS



4-5. VALIDATION OF TRAINING. Validation is a series of evaluation activities (paragraph 4-5e) that are part of the formative evaluation of course materials. Specifically, validation is the process through which instructional materials and associated documentation are examined and approved for delivery to the target population.

a. Scope. All resident and nonresident technical training courses developed for use at a national level, or as designated by the national training office, shall be validated prior to implementation. This procedure represents the minimum requirement for validation and applies to all training suppliers. The process may be supplemented with additional steps by training suppliers, or as required by the national training office.

b. Purpose. The purpose of validation is to ensure each of the following critical elements are reviewed and deemed adequate before training is delivered:

(1) The presence of a signed document authorizing approval of each of the following:

(a) **Need for the Training.** This has typically been produced in the form of a training proposal, which provides a list of the tasks to be trained, the target student population, and the estimated number of students.

(b) **Analysis of Training.** This has typically been produced in the form of a job and task analysis, which specifies the tasks, skills, and knowledge requirements for a particular job.

(c) **Training Management Plan.** This has typically been produced in the form of a training development plan, which specifies how the training will be developed and delivered (e.g., general instructional methods and media), the training outcomes, prerequisites, materials and equipment required, and anticipated costs.

(d) **Design of the Course.** This has typically been produced in the form of a course design guide, which specifies the training objectives, the grouping and sequence of objectives, the specific instructional methods and media to be used, and the assessment strategy.

(2) Technical accuracy.

(3) Instructional soundness.

(4) Materials are developed in accordance with the course design.

(5) Materials are developed in accordance with specified formats or other requirements, such as specific lesson plan formats.

(6) The effectiveness of the instruction, in measurable terms, is adequate (i.e., the course materials convey the necessary skills and knowledge to result in a sufficient number of students from the target population successfully mastering the material, such as 90 percent of the students succeeding).

c. **Flexibility.** Figure 4-2, Validation Process Chart, shows the validation steps which represent an "ideal" process for validation. Given time and other resources, this process has been demonstrated effective in producing technically valid and instructionally sound training. In many instances, training must be developed under less than ideal circumstances, where time or other resources are constrained. Under such circumstances, a discussion of validation activities should be conducted between the training supplier and the responsible national training office to determine which activities can reasonably be performed within the resources available. The responsible training office has final decision authority over the validation process. In order to determine how many validation steps should be conducted and the depth to which these steps shall be performed, the responsible training office and training supplier should consider factors such as criticality of the training, time sensitivity, complexity, knowledge of the content and target audience, and resources available.

d. Participants involved in the validation process are course developers, subject matter experts, instructional support staff, a representative from the responsible national training office, instructors, and instructional systems specialists. Course developers and subject matter experts should be involved in the technical review. Course developers and instructional systems specialists should be involved in the course delivery review. The above participants may have multiple roles in the validation process.

e. **Validation Steps.** The process for conducting validation consists of the following five steps: review instructional materials, conduct course walk-through, conduct operational tryout, conduct the first class, and write a course report (Figure 4-2).

(1) **Step 1. Review Instructional Materials.** The purpose of this review is to ensure course documentation is complete and approved; provide a technical review of the content of the materials; provide a review of the instructional soundness of the materials; ensure the materials conform to any pre-specified requirements or formats; and ensure the course conforms to the prescribed design.

(a) Course materials and documentation shall be provided to the representative of the national training office or designee, with sufficient time to conduct the reviews listed below. The offices and services will determine the frequency of the materials review.

(b) Documents (e.g., course design guide, course report, etc.) shall be approved by the responsible national training office and maintained in a course file.

(c) Following completion of Step 1, Review Instructional Materials, written documentation shall be provided to the training developer. This documentation shall include course name, list of reviewers, review date, consolidated list of changes to be made prior to the course walk-through, and date for completion of revisions.

(2) **Step 2. Conduct Course Walk-through.** The purpose of the walk-through is to ensure previous corrections and/or revisions from the instructional materials review have been made, instruction is sequenced logically, the consistency and quality of materials, and logistics problems in delivering the course are identified and resolved. The course is presented in its entirety, but in an abbreviated manner, so subject matter experts, instructional designers, and instructors may observe the general flow.

(a) The course design and all course materials should be provided to reviewers prior to the start of the walk-through. An agenda is established by the training developer and approved by the reviewers prior to the course walk-through. During the walk-through, the training developer will present, in an abbreviated manner, each lesson in the course, so that the review of the course can be compressed. The developer should be prepared to discuss any aspect of the course in detail.

(b) Following completion of Step 2, Course Walk-through, written documentation shall be provided to the training developer. This documentation shall include course name, list of reviewers, review date, consolidated list of changes to be made prior to the operational tryout, and date for completion of revisions.

(c) The course walk-through will result in a "Go/No Go" decision to proceed with the operational tryout or undergo a follow-up review before proceeding. A key consideration in the Go/No Go decision is whether some or all of the course needs to be tested with the actual target population. The reviewers will indicate which parts of the course need to be tested and the developer will document any problems and make all necessary revisions. The manner in which course material is tested with the target population is flexible and will be agreed upon between the developer(s) and reviewer prior to the testing. All corrections, as a result of the target population test, shall be made prior to conducting an operational tryout.

(3) **Step 3. Conduct Operational Tryout.** The purpose of the operational tryout is to locate and eliminate any remaining problems in the instruction. The course is delivered just as it would be for an actual target audience, except that students are provided an opportunity to comment on each lesson. Results of assessment activities are compiled and examined to determine if the course met stated goals for student achievement.

(a) Following completion of the review, written documentation of the review will be completed by the reviewers and provided to the training developer. This documentation will include course name, list of participants, tryout date, number of students from the target population and the number that met the stated goals (e.g., passed the tests), consolidated list of changes to be made (both to the instructional materials and evaluation

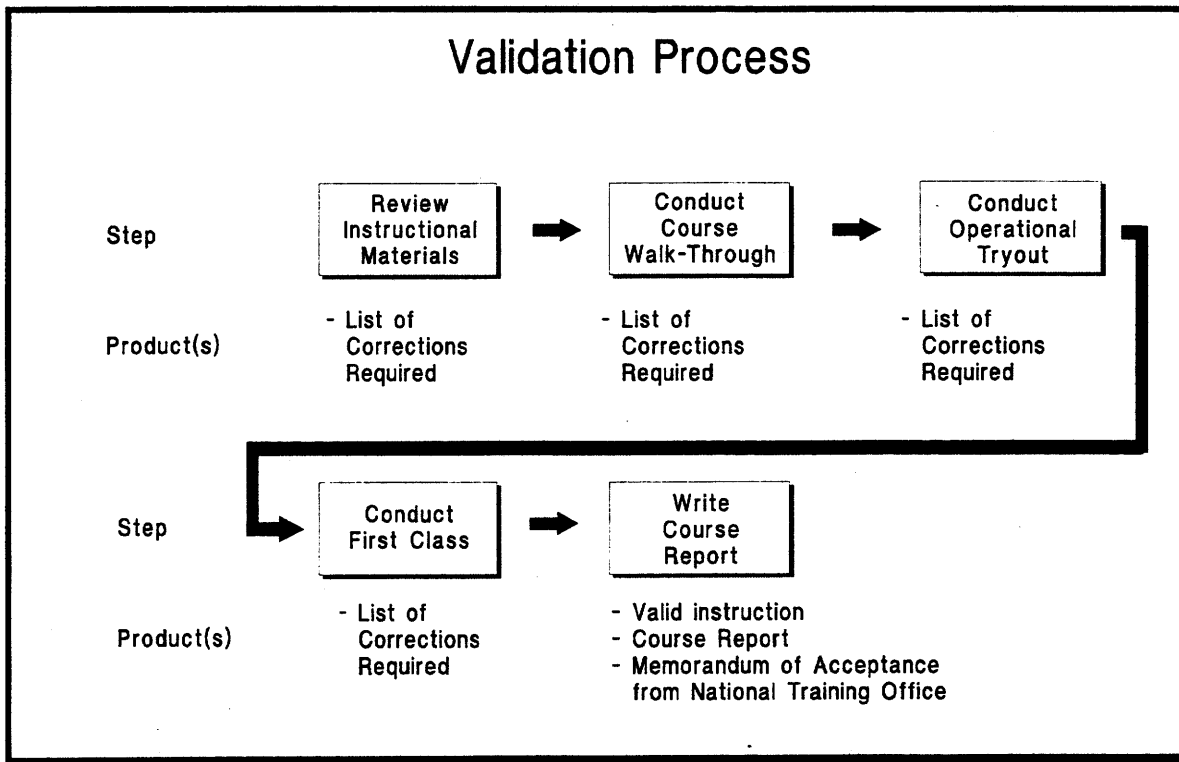
forms) prior to the first class, and date of revision completion. The operational tryout will result in a "Go/No Go" decision to conduct the first class or follow-up review.

(4) **Step 4. Conduct First Class.** The purpose is to verify all revisions have been made and the course is effective when delivered to the target population. Following the operational tryout and completion of necessary revisions, the course will be delivered in its final developmental form to the target population.

(a) The training developers shall provide all instructional materials (e.g., lesson plans, student handouts, exercises, tests and test keys, equipment, etc.) necessary for delivering the course, unless otherwise instructed. The delivering organization will identify the number of students participating in the first class and ensure that any necessary enrollment activities are completed.

(b) Following completion of the first class review, information shall be compiled or completed by the instructors and/or training developers for the course report. This documentation will include the start and end dates, total class time, number of students, and how many met the stated goals for achievement (e.g., passed the tests), tests scores for all students, summary of the lesson-by-lesson evaluations, comments and/or scores (if used) provided by students and instructors, and a consolidated list of changes and a schedule for their completion.

(5) **Step 5. Write Course Report.** The purpose of this step is to prepare a summary report that provides the results of the first class. The organization that delivers the first course shall write the course report. The course report shall be submitted to the appropriate national training office. Within 30 calendar days of receipt of the course report, the national training office shall transmit a memorandum of acceptance or rejection of the training. If the training is rejected, an explanation for the basis of the rejection, and guidance on any action to be taken, shall be provided. Both the course report and memorandum of acceptance shall be placed in the course file.

FIGURE 4-2. VALIDATION PROCESS CHART

CHAPTER 5. TRAINING RESOURCES

5-1. OVERVIEW. This section identifies training providers and discusses learning councils.

5-2. TRAINING PROVIDERS. The following vendors are available to provide training to Air Traffic Services (ATS) employees:

- a. Center for Management Development (CMD) provides leadership, management, team training, and develops courseware.
- b. FAA Academy provides technical training, administers the correspondence study program, and develops courseware.
- c. Other Federal Government organizations (i.e., United States Department of Agriculture, Office of Personnel Management, and Department of Defense.)
- d. Non-Government (i.e., colleges/universities, professional associations, groups, or organizations, private industry). Commercial off-the-shelf (COTS) training is defined as existing training regularly offered to the general public and/or Government personnel in the course of normal business operations. Training that is specifically developed, designed, or produced to meet an FAA requirement is not considered COTS. All contractor-developed training must be validated (see chapter 4) and developed in accordance with FAA Standard 028, Contractor-Developed Training.

5-3. LEARNING COUNCILS. Learning councils may be established to improve requirements analysis, foster efficient use of resources, and increase employee involvement. Offices and Services are encouraged to establish national and/or field learning councils composed of employee representatives, staff specialists, supervisors, and managers.

CHAPTER 6. CAREER PLANNING AND DEVELOPMENT

6-1. GENERAL. Career development and planning is the planning, organizing, and systematic development of employees to improve performance in a career field through job assignments and training. Individuals with a current Individual Development Plan (IDP) are not required to prepare formal training requests for courses identified in their IDP's. Career development and planning is a means to achieve career goals, including conversion. A Needs Assessment, Individual Development Plan, or Training Plan will be the determining factor in establishing priority for the use of the programs described in this chapter.

6-2. INDIVIDUAL DEVELOPMENT PLAN (IDP).

a. An IDP is a written schedule or plan prepared to address an employee's career development needs. The IDP is a systematic plan for providing training and developmental experiences for employees to improve performance of current duties, prepare for a career change, or move into a position of increased responsibility.

b. Developing an IDP involves setting goals, identifying the knowledge, skills and abilities (KSA's) needed to attain these goals, and deciding what steps are necessary to gain KSA's. The IDP should include training courses, developmental activities/assignments (e.g., special projects, details, shadow assignments, job rotations, collateral duties, task forces, and acting assignments) needed to achieve goals. The IDP must be realistic in terms of both the employee's expectations and the supervisor's requirements, including monetary and time constraints.

c. IDP's should be reviewed periodically to reflect any changes required to meet the needs of both the organization and employee. This program provides the employee and management with a planned approach to advance the employee's career goals and meet critical position requirements. Employees should be accommodated to the maximum extent feasible, consistent with requirements of their current position, mission of the organization, and office guidelines concerning training, special assignments, and employee details.

6-3. EMPLOYEE RESPONSIBILITIES. Career development is primarily an individual responsibility. It is the responsibility of the employee to:

- a. Assess their aptitude and interest before formulating career goals and developmental activities;
- b. Research information about desired occupations and positions;
- c. Determine what skills and abilities need to be developed;
- d. Identify career goals to their supervisor for individual assistance;

- e. Initiate a realistic/achievable development plan; and
- f. Implement and update development plans.

6-4. SUPERVISOR RESPONSIBILITIES. The supervisor plays a significant role in each employee's career development. It is the responsibility of the supervisor to:

- a. Educate employees on the purpose and use of the IDP process.
- b. Encourage each employee to prepare an IDP to enhance their ability to achieve both short- and long-term goals.
- c. Utilize opportunities for special projects, detail assignments, and organizational changes.
- d. Review the IDP periodically with the employee.
- e. Ensure that IDP's are realistic, achievable, and do not raise false expectations.
- f. Include training requirements in the office's annual calls for training.

6-5. UPWARD MOBILITY PROGRAM. ATS supported systematic management effort that focuses Federal personnel policy and practice on the development and implementation of specific career opportunities for lower-graded employees (below FG-9 or equivalent) who are in positions or occupational series which do not enable them to realize their full work potential. In special cases, waivers may be granted to utilize the Department of Transportation's Career Opportunity Training Agreement (COTA) transmitted by DPM Letter 338-01 dated July 21, 1993, covering positions through the FG/FM-15 level.

6-6. STUDENT CAREER EXPERIENCE PROGRAM (SCEP). A partnership agreement between Federal Government agencies and educational institutions which provides students with exposure to public service and affords the agency an opportunity to consider the student for potential full-time employment upon graduation. Students receive curriculum-related on-the-job work experiences; optional Government subsidized tuition for courses, books and laboratory fees; and salary and benefits. This program affords ATS the opportunity to attract and recruit well-educated graduates into the work force.

6-7. ON-THE-JOB TRAINING (OJT). On-the-job training is conducted at a work site by the supervisor or designee. This training provides experience in the work environment in which the employee is performing, or will be performing their job. On-the-job training provides meaningful, productive, and progressively responsible experience related to the target position. Specific projects may be arranged in other program areas that interface with the career field. On-the-job training time shall be in the target area or in closely related functions. Formal educational courses may be used to supplement OJT and may be taken at various locations such

as interagency facilities, local trade schools, and colleges and/or universities. Resources permitting, such courses may be reimbursed by the Federal Government.

6-8. MENTORING PROGRAM. The objective is to develop and/or improve skills and abilities, promote career development, and improve employee morale. ATS encourages the services to develop mentoring programs which pair a more skilled/experienced employee (mentor) with a lesser skilled/experienced employee (mentee).

6-9. CAREER DEVELOPMENT SPECIAL PROGRAMS. Programs that are offered to employees by either the Federal Government or a private vendor to improve or enhance performance. ATS determines the participation levels in special programs. Some examples of programs in which ATS has previously participated are: Office of Personnel Management (OPM) Development Seminars, Women's Executive Leadership (WEL) Program, Executive Potential Program (EPP), and the Collegiate Training Initiative Program (CTI).

