

**CHANGE****U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION****JO 3120.4M  
CHG 1**

National Policy

Effective Date:  
January 30, 2012**SUBJ:** Air Traffic Technical Training

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**1. Purpose.** This order prescribes instructions, standards, and guidance for the administration of air traffic technical training. All persons involved in air traffic technical training are required to be familiar with and comply with this order. The order consists of six (6) chapters and ten (10) appendices. The chapters contain information generally applicable to all types of facilities. The appendices contain information unique to En Route, Terminal, Flight Service facilities, and the Air Traffic Control System Command Center. All facilities must be in compliance with this Order within ninety (90) days of the effective date.

**2. Who this change affects.** All Air Traffic Organization (ATO) personnel and anyone using ATO directives.

**3. Disposition of Transmittal Paragraph.** Retain this transmittal sheet until the directive is cancelled by a new directive.

**PAGE CHANGE CONTROL CHART**

<b>Remove Pages</b>	<b>Dated</b>	<b>Insert Pages</b>	<b>Dated</b>
iii	03/15/11	iii	01/30/12
2-1 and 2-2	03/15/11	2-1 and 2-2	01/30/12
3-1	03/15/11	3-1	01/30/12
4-3 thru 4-7	03/15/11	4-3 thru 4-7	01/30/12
6-3	03/15/11	6-3	01/30/12
6-5 and 6-6	03/15/11	6-5 and 6-6	01/30/12
Appendix A. A-15	03/15/11	Appendix A. A-15	01/30/12

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Appendix A. A-18	03/15/11	Appendix A. A-18	01/30/12
Appendix B. B-2	03/15/11	Appendix B. B-2	01/30/12
Appendix B. B-4	03/15/11	Appendix B. B-4	01/30/12
Appendix D. D-1	03/15/11	Appendix D. D-1	01/30/12
Appendix D. D-7	03/15/11	Appendix D. D-7	01/30/12
Appendix D. D-9 thru D-14	03/15/11	Appendix D. D-9 thru D-14	01/30/12
Appendix D. D-22	03/15/11	Appendix D. D-22	01/30/12
Appendix D. D-33	03/15/11	Appendix D. D-33	01/30/12
Appendix F. F-1 thru F-19	03/15/11	Appendix F. F-1 thru F-19	01/30/12
Appendix F. F-27 thru F-34	03/15/11	Appendix F. F-27 thru F-34	01/30/12
Appendix F. F-36 thru F-50	03/15/11	Appendix F. F-36 thru F-50	01/30/12
Appendix F. F-53	03/15/11	Appendix F. F-53	01/30/12
Appendix F. F-60 thru F-67	03/15/11	Appendix F. F-60 thru F-67	01/30/12
Appendix G. G-1 thru G-3	03/15/11	Appendix G. G-1 thru G-3	01/30/12
Appendix H. H-1 thru H-4	03/15/11	Appendix H. H-1 thru H-4	01/30/12
Appendix H. H-13 and H-14	03/15/11	Appendix H. H-13 and H-14	01/30/12
Appendix I. I-1	03/15/11	Appendix I. I-1	01/30/12

**4. Administrative Information.** This Order change is distributed to divisions and branches in Washington headquarters, regions, and centers and to all field offices and facilities.



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JAN 27 2012

**Appendix D. En Route Instructional Program Guide..... D-1**

1. Section 1. Introduction..... D-1
2. Section 2. Stage I: FAA Academy Training..... D-1
3. Section 3. Stage II: Assistant Controller Training (Flight Data) ..... D-6
4. Section 4. Stage III: Nonradar and Radar Associate Controller Training ..... D-9
5. Section 5. Stage IV: Radar Controller Training..... D-30

**Appendix E. Flight Service Instructional Program Guide .....E-1**

1. Section 1. Introduction.....E-1
2. Section 2. Stage I: FAA Academy Training .....E-1
3. Section 3. Stage II: Automated Flight Service Station .....E-6

**Appendix F. Terminal Instructional Program Guide .....F-1**

1. Section 1. Introduction..... F-1
2. Section 2. Stage II: Flight Data Position Training..... F-1
3. Section 4. Stage III: Clearance Delivery Position Training..... F-5
4. Section 5. Stage IV: Ground Control Position Training ..... F-12
5. Section 6. Stage V: Local Control/Cab Coordinator Position Training ..... F-25
6. Section 7. Stage VI: Non-Radar Training..... F-36
7. Section 8. Stage VII: Radar/Handoff/Coordinator or Controller Training..... F-50

**Appendix G. Traffic Management Instructional Program Guide ..... G-1**

1. Section 1. Introduction..... G-1
2. Section 2. Stage I: FAA Academy Training ..... G-1
3. Section 3: Stage II: Facility Traffic Management..... G-2

**Appendix H. Terminal and En Route Facility Controller-in-Charge Instructional Program Guide..... H-1**

1. Section 1. Introduction..... H-1
2. Section 2. Stage I: FAA Academy Training ..... H-1
3. Section 3: Stage II: Facility Controller-in-Charge Qualification and Certification..... H-2
4. Section 4. Stage II: Facility Controller-in-Charge..... H-3
5. Section 5. Instructions for Completing the CIC OJT..... H-4

**Appendix I. Reserved for OCEAN21 .....I-1****Appendix J. Definitions..... J-1****Appendix K. Explanation of Changes..... K-1**

## Chapter 2. Roles and Responsibilities

**1. Air Traffic Technical Training Organization (AJL).** AJL is responsible for developing individual and organizational competencies for the air traffic workforce.

**a. Director of Technical Training.** The Director of Technical Training is responsible for program guidance, effectiveness, technical accuracy, evaluation of air traffic technical training, coursework/curriculum review, including FAA Academy-delivered and developed courses as well as the oversight at institutions participating in the AT-CTI.

**b. Manager of Technology.** The Manager of Technology is responsible for web-based learning and computer based instruction (CBI) platforms.

**c. Manager for Air Traffic Facility Training Administration Group.** The Manager for Air Traffic Facility Training Administration Group is responsible for ensuring the delivery of consistent and appropriate training at the FAA Academy and at all air traffic field facilities.

**2. Service Units (En Route, Terminal, Systems Operations).** Service units are responsible for implementation, administration, and evaluation of the air traffic technical training program.

**3. FAA Academy.** The FAA Academy delivers technical training and supports the administration of the national Air Traffic Technical Training Program to include, but not limited to: preparing the Control Tower Operator (CTO) Tower Visibility Observation, Radar Qualification, Weather Surveillance Radar 88D (WSR-88D), Limited Aviation Weather Reporting Station (LAWRS) and En Route Flight Advisory Service (EFAS) Examination and Certification materials. They administer the Academy performance verification process.

**4. Facility Personnel.** Facility personnel involved in air traffic technical training must maintain a comprehensive working knowledge of the procedures and guidelines outlined in this order and the applicable national and local training directives.

**a. Air Traffic Manager (ATM).** The ATM must ensure the following:

Where authorized, a support manager is selected and assigned the responsibilities of the Training Administrator (TA). Where no support manager is authorized, an individual is designated in writing to serve as the TA. The ATM may serve as the TA, without written designation.

(1) A training program is established for certification and proficiency and is conducted in accordance with national, service area, local directives, and Instructional Program Guides (IPG).

(2) The training program must be described in a facility training directive. The facility training directive is subject to quality assurance/quality control mechanisms described in applicable agency directives.

(3) A schedule of required refresher training will be maintained to ensure all refresher training is accomplished.

(4) Individuals designated as the Facility Technical Liaison Officer (FTLO) or Facility Technical Officer Representative (TOR) for the air traffic field training contract must complete the required training, as established by the contracting officer, within 90 days of occupying the position.

(5) Individuals assigned to staff positions that conduct instructor-led training or develop lesson plans must attend an FAA-approved instructor training course as soon as possible after occupying the position. Briefings conducted by staff personnel and administration of simulated control scenarios do not constitute instructor-led training.

**Note:** This training should occur within six months.

(6) FAA Form 3120-1 is initiated and maintained (see Appendix A).

(7) Resource requirements necessary to conduct the facility training program are submitted to the appropriate service center or flight services information office. The service center may submit resource requirements to the appropriate service unit.

(8) When the facility is identified as a LAWRS site, the weather service regional office is notified of the pending change in status prior to the start of LAWRS training.

(9) For On the Job Training (OJT) and the Certification Process, the ATM must ensure that:

(a) Individuals entering qualification training receive facility orientation and are briefed on the IPG contents that are pertinent to the current stage of training, facility training directive, and other associated directives prior to entering training.

(b) OJT is accomplished in accordance with Chapter 6, Air Traffic Control Specialist On-the-Job Training and Position Certification.

(c) Training reports are properly completed and maintained.

(d) Facility target hours, minimum certification hours, and On the Job Familiarization (OJF) hours are established, maintained, and updated.

(e) All On the Job Training Instructors (OJTIs) and managerial personnel meet the qualification criteria in this order.

(f) OJTIs are recommended and designated in accordance with Chapter 6.

(g) The training review process is conducted in accordance with this order.

(10) If training is unsuccessful, the ATM must initiate action in accordance with HRPM EMP-1.14, Collective Bargaining Agreement (CBA) and/or other appropriate directives.

(11) Ensure all information including national and local training orders and directives is made available to all facility personnel.

### Chapter 3. Technical Training

**1. Identification of Training Requirements.** National technical training requirements are established at the Headquarters (HQ) Service Unit Level (En Route, Terminal, System Operations, Flight Service Stations (FSS) and the David J. Hurley Air Traffic Control System Command Center (ATCSCC). Technical training requirements are developed and implemented in collaboration with the Air Traffic Technical Training Organization (AJL).

**2. Changes, Modifications, Interpretations and Waivers.** The Air Traffic Organization (ATO), Service Areas, and field facilities are responsible for identifying, reviewing job tasks and training requirements. Changes, modifications, interpretations and requests for waivers to training requirements must be submitted in writing to the Service Center Training Manager. The Service Center Training Manager, or their designee, will forward the request to the Manager, Air Traffic Facility Training Administration Group (AJL-14) within 30 days. The Manager of AJL-14, or their designee, will respond in writing to the requesting organization within 120 days.

**3. Training Proposals.** The development of new national courses/curricula must be submitted to the Manager, Air Traffic Technical Training Facilities and Administration (AJL-14).

**4. Waivers.**

**a.** Waivers to exempt individuals from specific training requirements should be submitted in writing to the AJL-14. The Manager, or their designee, will coordinate with the line of business to determine if other training methods suffice or provide a waiver.

**b.** Waivers to FAA Academy course(s) must be submitted in writing to the Service Center Training Manager. The Service Center Training Manager, or their designee, will forward the request to the Manager, (AJL-14) within 30 days. The Manager of AJL-14, or their designee, will respond in writing to the requesting organization within 120 days.

**c.** Requests for waivers that affect multiple facilities or directed from a HQ's level must be submitted in writing through the Manager AJL-14 to the Director of Technical Training. The Director of Technical Training will act on these requests.

**Note:** Requests may be submitted electronically with electronic signatures.

**5. Development of Training.** The Director for Technical Training will take action to establish and maintain training programs for identified requirements. All training courses will be developed and administered in accordance with agency directives.

**Note:** Briefing items developed for controller information/awareness only are excluded from the Instructional Systems Development requirements.

**6. Call for Training.** Air Traffic Organization (ATO) must identify organizational training requirements for inclusion in the annual call for training.

**7. Educational Opportunities for Non-FAA Personnel.** In accordance with national policy, orientation, familiarization, shadowing or other educational opportunities, may be provided at FAA facilities. Educational opportunities for individuals not employed by the FAA will be provided in accordance with FAA agreements and/or memorandums of understanding.

operation of the weather-observing equipment used at the facility and complete a minimum of five practice observations under realistic conditions.

c. Observations must be recorded on a Meteorological Form (MF) 1 M-10C, Surface Weather Observations (METAR/SPECI), and taken with the availability of a knowledgeable observer who can answer questions about the practice observations.

d. In order to retain certification, the developmental/CPC-IT must complete one official or practice observation recorded on an MF1M-10C within the past 60 days.

**Note:** Availability of a knowledgeable observer can be coordinated with another certified weather observer or the FAA Academy.

e. Developmentals/CPC-ITs at facilities required to augment an Automated Surface Observing System (ASOS) or an Automated Weather Sensor System (AWSS) must:

(1) Successfully complete weather observer training and certification as outlined in the previous paragraph.

(2) Complete Course 57005 (ASOS) or Course 57089 (AWSS). Appropriate OJT is required on the actual ASOS/AWSS equipment prior to completion of training.

(3) In order to retain this certification, the developmental/CPC-IT must be logged on the position responsible for ASOS/AWSS for at least one (1) hour and complete one (1) manual official or practice observation recorded on an MF1M-10C within the past 60 days.

**Note:** Completion of Course 57005 or 57089 must be recorded as supplemental training in FAA Form 3120-1. If only a portion of this course is required to meet the specific needs of the facility, only the portion(s) actually completed must be recorded in FAA Form 3120-1.

**5. Proficiency Training.** Proficiency training is required for all personnel who maintain operational currency. The purpose of this training is to maintain and upgrade the knowledge and skills necessary to apply air traffic procedures in a safe and efficient manner. This training includes but is not limited to Refresher, Supplemental, Skill Enhancement, and may include mandatory briefing items that are distributed by headquarters, service centers and/or the facilities. Proficiency training needs will differ from facility to facility and should be tailored to meet identified requirements. All proficiency training will be documented in the employee's FAA Form 3120-1.

**Note:** With the development of new technology, training accomplished via electronic means, such as eLMS, will be identified as part of the official training record.

**6. Refresher Training.** Each facility must establish in writing an annual refresher training program. Facilities are encouraged to review historical data in order to identify additional topics for the annual refresher training program in order to meet each facility's changing needs.

a. This program must include training on the following topics if applicable:

(1) Unusual situations, lost aircraft orientation, aviation security procedures (including interceptor procedures and communications), hijacking, and other topics identified by the TA. (Training on emergency situations should be based on real life incidents and aircraft accidents, stressing a lesson-learned approach.)

**Note:** Terminal and En Route personnel must receive lost aircraft orientation on an annual basis, flight service personnel must receive lost aircraft orientation on a quarterly basis.

(2) Seldom used procedures, such as transitioning to and applying non-radar separation and procedures for special flight handling.

(3) Weather and other conditions that affect flight e.g. icing, thunderstorms, wind shear, and VFR aircraft that encounter IFR conditions.

(4) Bird activity information and dissemination.

(5) Fatigue awareness as the eLMS course or most current version available. (Note: Operations Managers (OM's) are also required to take this training annually.)

(6) Other topics identified and transmitted by ATO.

(7) Safety alerts and traffic advisories.

(8) Wake turbulence information and application.

(9) Line up and wait.

(10) Local airport deicing plans (LADP).

(11) Minimum safe altitude warning procedures.

(12) Procedures and responsibilities for special use airspace (SUA). This training must include, but is not limited to, a review of military training routes (MTR), and the types of operations conducted on any MTR beginning in, passing through, or terminating within the controllers area of responsibility.

(13) Airspace classifications e.g. class A, B, C, D, etc.

(14) Land and Hold Short Operations (LAHSO).

**b.** Prevention of runway incursion. On a quarterly basis, tower facilities must review items directly related to the prevention of runway incursions. The intent of this requirement is for this training to occur every three (3) months.

**c.** All tower visibility observers must receive refresher training annually in tower visibility procedures and markers.

**Note:** LAWRS observers are not required to maintain a separate tower visibility certificate because it is incorporated in their LAWRS certification.

**d.** All certified weather observers who augment an ASOS or AWSS must receive at least semiannual LAWRS refresher training, and at least annual refresher training on the operator input device (OID). The LAWRS refresher training should include, but is not limited to, seasonal changes, visibility markers, adverse weather situations and common data entry errors. Observers who take manual observations must receive annual LAWRS refresher training.

**Note:** The OID refresher training may consist of a retake of individual sections of CBI Course 57005/57089 as appropriate.

**e.** Radar facilities must conduct annual airspace intruder refresher training. This training must include but is not limited to:



- (1) Tracked and untracked targets.
- (2) Airspace violators who have established two-way radio communications and violators who have not established two-way radio communications.
- (3) Mode C and non-Mode C equipped targets.
- (4) Defense Event Network (DEN) notification requirements.

**f.** Facilities with simulation capabilities such as AT Coach, ETG, TTG, DYSIM, TSS, CBI, etc., must complete at least two (2) hours of simulation training on the items identified above in Section 6, Refresher Training. The use of TSS for annual refresher training is required for facilities where the TSS is located.

**g.** Primary Backup Mode. Terminal personnel required to maintain radar currency must receive refresher training annually on the use of the primary backup mode. All En Route personnel required to maintain currency must receive refresher training annually on the use of the primary backup mode at ARTCC's when and where applicable. This training must include:

- (1) Transitioning to and from normal operations to backup operations.
- (2) The unique radar/flight data processing used while operating in the back-up configuration(s).
- (3) Control and communication procedures associated with operation in the backup mode.

**h.** Managerial Personnel/Controller-In-Charge (CIC). Managers and individuals certified as CIC must receive a minimum of one hour of refresher training annually. This training must include handling of accidents, incidents, unusual situations, upward reporting, DEN notification and emergency events.

**i.** User Request Evaluation Tool (URET). When an area of specialization exclusively utilizes URET, facilities must conduct annual refresher training on the transition to/from a URET environment to paper strips. Training with the paper strips must focus on the identification of possible aircraft conflicts, as well as proper strip marking procedures.

**j.** Air Traffic Organization Operational Contingency Plan, in accordance with JO 1900.47C, ensure familiarity with procedures and airspace based on the facility contingency plans (for example, loss of radar, communications failure, etc.).

**k.** Facilities that utilize Ocean 21 (O21) must conduct annual refresher training on the transition to/from the O21 environment to paper strips (dual channel failure procedures). Training with paper strips must focus on the identification of possible aircraft conflicts as well as proper strip marking procedures.

**Note:** O21 facilities should include O21 simulation as part of their annual refresher training.

**7. Supplemental Training.** All operational personnel must complete supplemental training prior to the use of new/revised procedures, regulations, or equipment. The Training Administrator (TA) must review all supplemental training and update local training materials as appropriate.

**8. Skill Enhancement Training (SET).** The purpose of Skill Enhancement training is to improve an individual's knowledge, skills, and abilities. SET may be assigned to individuals certified on a position(s). SET may not be used to correct deficient performance that resulted in decertification. For an individual not certified but training on a position(s), SET may be assigned to enhance specific skills, techniques or knowledge to assist in their success with the training program. (SET may also be the result of an Event Review Committee (ERC) recommendation.)

**a. Skill Enhancement Training for CPC/FPL.**

(1) The FLM will assign SET in writing to include the specific skills and requirements necessary to accomplish this training.

(2) The FLM is responsible for developing the training to be administered to the specialist. Training will be tailored to meet the individual's needs. Methods may include OJT, web-based instruction (CBI), instructor-led training, self directed study, and simulation. (Evaluations may be used in skill enhancement training, if appropriate.)

(3) SET training must be documented on FAA Form 3120-25/26/32/36, or its electronic equivalent.

(4) SET will be documented in Section V of FAA Form 3120-1.

**Note:** If subsequent observation of performance indicates that the SET did not produce the expected results, further action may be required such as Performance Skill Checks, or Remedial Training.

**b. Skill Enhancement Training for Developmentals, CPC-IT's, and TMC-IT's:**

(1) The FLM will assign SET in writing to include the specific skills and requirements necessary to accomplish this training.

(2) The FLM is responsible for developing the training to be administered to the specialist. Training will be tailored to meet the individual's needs. Methods may include web-based instruction (CBI), instructor-led training, self directed study, and simulation. (SET for developmentals may not include OJT.) (Evaluations may be used in skill enhancement training, if appropriate.)

(3) SET training must be documented on FAA Form 3120-25/26/32/36, or its electronic equivalent

**9. Remedial Training.** The purpose of Remedial Training is to correct documented performance deficiencies. Remedial training is mandatory if the individual has been decertified as a result of performance deficiencies. When an individual's performance is deficient, however, the individual has not been decertified, remedial training may be conducted.

**a.** The FLM will assign Remedial Training in writing to include the specific area(s) to be covered and the reasons.

**b.** The FLM is responsible for developing the training to be administered to the specialist. Training will be tailored to meet the individual's needs. Methods may include, but are not limited to, Web-based instruction (i.e., CBI), instructor-led training, self directed study, simulation, evaluation and OJT.

**c.** Training provided as a result of performance deficiency must be documented as remedial

training. When documenting remedial training due to a performance-related decertification, references must not be made to a reported occurrence in Section V.

**Note:** Remedial training is logged under Proficiency Training in TRAX.

**10. Recertification Procedures.** Personnel who fail to meet currency requirements and those who are decertified on one or more operational position(s) must be recertified prior to resuming operational duties. To be recertified, the specialist must demonstrate under direct supervision, the ability to satisfactorily perform relevant operational duties during normal workload conditions. Recertification may be accomplished by individual position or a single action covering multiple positions at the discretion of the ATM. If recertification is not achieved the ATM must take action in accordance with Agency guidelines.

**a. Weather Observer Recertification.** To recertify as a weather observer, personnel who have not taken an observation within 60 days must demonstrate proficiency to an FLM or an FLM's designee. The appropriate NWS regional office must be notified of this proficiency check for notation on the individual's weather observer certificate. Personnel who have not taken an observation within 90 days must retake the NWS weather observer certification exam. Recertifications due to a performance deficiency must be entered in FAA Form 3120-1, Section VI, Technical Appraisal. All other recertifications must be recorded in FAA Form 3120-1, Section III, Qualification Training.

**b. Pilot Weather Briefer.** Individuals certified as pilot weather briefers must comply with the proficiency check requirements established by the National Weather Service (NWS) and outlined in NWS Instruction 10-809.

**c. Documentation.** FAA Form 3120-25 ATCT/ARTCC OJT Instruction/Evaluation Report or FAA Form 3120-26 FSS OJT Instruction/Evaluation Report must be used to document recertification. Instructions for completing these forms are found in appendices B and C. Recertification(s) must be recorded in FAA Form 3120-1, Section III. Recertification due to a performance deficiency must be entered in FAA Form 3120-1, Section VI, Technical Appraisal. Traffic Management Recertification(s) must be recorded in FAA Form 3120-32. Instructions for completing this form is found in Appendix G.

**11. Recertification Hours.** At the discretion of the TA, personnel who have not worked an operational position 120 days or less may be recertified and returned to operational duties without additional training. They may receive training to include but not limited to instructor-led, simulation training and/or OJT prior to recertification evaluation. OJT hours must not exceed 25 percent of the target hours established for developmentals with no previous experience.

**a.** Personnel who have not worked an operational position for more than 120 days but less than one (1) year must receive instructor-led, simulation training and OJT prior to recertification. OJT hours must not exceed 50 percent of the target hours established for developmentals with no previous experience.

**b.** Personnel who have not worked an operational position for one (1) year or more must receive instructor-led, simulation and OJT prior to recertification. OJT hours must not exceed 100 percent of the target hours established for developmentals with no previous experience.

- (a) Develop and review the training plan and recommend modification to the developmental/CPC-IT/TMC-IT's FLM/STMC.
- (b) Conduct training team meetings to ensure plan objectives are met in accordance with local directives.
- (c) Make recommendations on the training progress and readiness for certification based on training history and observation of performance during simulation (if practical).
- (d) Determine the operational positions for which OJT is required. OJT is required on at least two operational positions..
- (e) Conduct the majority (fifty-one percent or more) of OJT.
- (f) When an identified training team member is unavailable to provide OJT, another OJTI may provide training.
- (g) Provide performance feedback as soon as possible after OJT session(s) to include strengths, weaknesses and specific recommendations.
- (h) The OJTI must be plugged in to the same position. Direct monitoring must be used when conducting OJT.

**4. Training Plan.** The employee's FLM/STMC must ensure the training plan is developed and documented in writing before beginning OJT. The training plan(s) must include but is not limited to, operational positions requiring OJT, training objectives, team members, positions, target hours and minimum certification hours. Operational positions requiring OJT and the assignment of OJT hours are determined in local directives. OJT should be accomplished before beginning OJT and documented on FAA Forms 3120-25/26/32/36. Modifications to the training plan will be documented and discussed with the training team. Retention of training plans and all modifications must be in accordance with national directives. Retention of training plans, and all modifications, must be in accordance FAA Order 1350.15, Records Organization, Transfer and Destruction Standards.

**5. Performance Skill Checks.** Performance skill checks must be used to assess the developmental/CPC-IT/TMC-IT's training progress in the following manner: compare the current knowledge and skill level of the developmental/CPC-IT/TMC-IT against the level required for certification, and to also identify job task(s) that require improvement to achieve certification. Direct monitoring must be used when conducting performance skill checks. Performance skill checks may be performed on consolidated/combined position(s)/sector(s) only if training occurred on these consolidated/combined position(s)/sector(s).

Performance skill checks do not count toward OJT hours. Performance skill check(s) must:

- a.** Occur within the first 30 days after OJT begins, and then at least every calendar month on each position for which the developmental/CPC-IT/TMC-IT is receiving OJT.
- b.** Be conducted by a FLM/STMC who maintains familiarity or currency on the operational position(s)/sector(s). Performance skill checks will normally be conducted by the employee's FLM/STMC or as specified in the local training order. If the FLM/STMC only maintains familiarity on an operational position/sector, an OJTI must be plugged-in at the same

individual or suspend OJT.

(1) For a certification skill check to result in certification, all applicable job subtasks must be rated as satisfactory or not observed. If a job subtask(s) are not observed during this assessment, the FLM/STMC must document that the developmental/CPC-IT/TMC-IT has demonstrated satisfactory performance/knowledge for that job subtask through verbal/written questions, simulation or other methods.

(2) After the certification skill check, the employee's FLM/STMC must consider the following items prior to taking the appropriate action:

- (a) The developmental/CPC-IT/TMC-IT's performance during OJT.
- (b) The performance demonstrated during the certification skill check session.
- (c) The recommendation(s) resulting from the certification skill check session
- (d) Input from other training team members

(3) The results of the certification skill check must be documented on FAA Forms 3120-25/26/32/36, or its electronic equivalent, and must include a description of performance and a recommendation for one of the following; certification, continuation of OJT, skill enhancement training or suspension of OJT.

**7. Suspension of Training.** Suspension of training is an action taken by the developmental's FLM to temporarily stop OJT. There is no requirement to exhaust target hours and/or any additional OJT hours prior to suspension of training. The developmental/CPC-IT/TMC-IT must be notified in writing of the documented performance deficiencies. Training may be suspended without conducting a performance skill check. A training review must be conducted.

**8. Additional OJT Hours.** Additional OJT hours are:

- a. Not guaranteed.
- b. An Operations Manager (OM)/Traffic Management Officer (TMO), second level manager or the ATM may assign additional OJT hours in cases where there is an expectation that certification will be accomplished within the additional period.
- c. Additional hours must not exceed 20 percent of the target hours.
- d. Prior to the assignment of additional training hours, the following must occur:  
Review of training documents and consideration input from the training team
- e. There is no requirement to exhaust additional OJT hours.
- f. Upon the completion of additionally assigned OJT hours, a certification skill check must be conducted. The employee's FLM/STMC must take one of the following actions:
  - (1) Certification, or
  - (2) Suspension of OJT.
- g. Additional OJT hours must be documented in Section III of FAA Form 3120-1.

## **9. Training Review Process.**

The purpose of the training review process is to ensure that opportunities for training success

were utilized while maintaining the integrity of the training program. Training reviews must be conducted when requested by an ATM/District Manager or when training has been suspended due to the developmental's performance.

**a. A training review must:**

(1) Be conducted by a minimum of two (2) individuals from any of the following, as assigned by the ATM/District Manager or their designee:

(a) A FLM//STMC other than the employee's FLM. (If not available onsite, the district manager may assign this duty to any FLM/Traffic Management (TM) supervisor within the district.)

(b) A Support/Operations Manager at facilities where this position is staffed. (If not available onsite, the District Manager may assign this duty to any support/operations manager in the district.)

(c) TA/support specialist. (If not available onsite, the District Manager may designate any of these individuals from within the District.)

(2) Include a participant as designated by a collective bargaining agreement.

(3) Include an assessment of the training history on the position.

(4) Not include members of the training team.

(5) Provide a written statement of facts and recommendation to the ATM/District Manager. The document should include as a minimum but is not limited to the following:

(a) The trainee's performance deficiencies.

(b) Actions the facility has taken to correct the trainee's performance deficiencies.

(c) Whether or not training was conducted in accordance with JO 3120.4.

(d) Whether or not the trainee adhered to his/her responsibilities.

(e) Consistency of training (number of OJT hours per day, per week or per month, also number of OJTIs involved).

(f) Any extenuating circumstances.

(g) Recommendation (i.e., continuation of OJT or termination of training)

**b. Training review may:**

(1) Conduct interviews of the training team members and/or other individuals.

(2) Request information from the training team or other individuals.

**c. ATM/District Manager must consider the training review's statement of facts and recommendation when making their final determination for continuation or termination of training. The employee will be notified in writing of the Manager's decision as soon as possible but not later than 30 days from the date of the suspension of OJT.**

**Note:** If the ATM/District Manager assigns additional OJT hours, the number of hours/days must be finite. Upon completion of these hours, a certification skill check must be conducted. The provisions of Chapter 6, Section 8, Additional OJT Hours, are

**8. Section VI, Technical Appraisal.** The technical appraisal section for all options must include the on-the-job training instructor (OJTI) skill check described in Chapter 6, Sections 4 and 5 and Individual Performance Management (IPM) Operational Skills Assessments described in FAA Order JO 3400.20 Individual Performance Management (IPM) for Operational Personnel.

**Block A. DATE COMPLETED:** Enter the date shown on the appraisal form or the date the technical training discussion was completed.

**Block B. TECHNICAL APPRAISAL:** Enter the position on which the appraisal took place, the type of appraisal, and the result (satisfactory or unsatisfactory). If the result is unsatisfactory, recertification is required prior to the resumption of operational or OJTI duties.

**Block C. DATE DISCUSSED:** Enter the date the appraisal was discussed with the employee. Enter a diagonal line for technical training discussions.

**Block D. FRONTLINE MANAGER SIGNATURE:** For technical appraisals and OJTI skill checks, the employee's Front Line Manager, even though this individual may not have performed the appraisal, must sign or use a signature stamp in this block.

**Block E. EMPL INIT:** The employee must initial in this block.

**Figure A-9. Section VI, Technical Appraisal**

A DATE COMPLETED	B TECHNICAL APPRAISAL	DATE C DIS-	D CERTIFICATION	E EMPL
9/25/00	East Arrival-OJTI Evaluation Satisfactory	9/25/00	V Conrad	PC
10/1/02	RAP LOW- Performance Skill Check Unsatisfactory	10/1/02	V Conrad	PC
2/1/04	Technical Training Discussion	/	V Conrad	PC
8/2/04	Technical Training Discussion	/	V Conrad	PC

**10. Section VIII, Certified TRAX Records.**

**a.** The entries in this section pertain only to the TRAX Employee Training Record report.

**b.** The TRAX Employee Training Record report is divided into eight parts (see Figure A-12). These parts correspond to the sections described above (Section IIA/B, Section III, Section IV, Section V, Section VI, Section VII, and Section VIII). TRAX only prints those sections in which training has been entered.



for local use and adaptation.

**a. OJT.** During OJT, place a mark (for example, ✓, X) in the columns “OBSERVED” or “COMMENT”.

(1) **Observed:** A mark in this column indicates that the operation or procedure was observed during the session but that no significant comments are made.

(2) **Comment:** A mark in this column indicates that the operation or procedure was observed during the session and is accompanied by a comment in Block 12. During OJT, references in Block 12A are optional.

**Note:** If a job subtask is not applicable to a position being observed, it may be left blank or recorded as “N/A” (not applicable).

**b. Performance/Certification Skill Check.** During skill checks, place a mark (for example, ✓, X) in the column(s) “SATISFACTORY,” “NEEDS IMPROVEMENT,” and “UNSATISFACTORY.” OJTIs do not mark in these columns. Definition of Terms:

(1) **SATISFACTORY:**

(a) Performance skill check developmental/CPC-IT/TMC-IT. A mark in this column indicates that the developmental’s/CPC-IT’s observed performance in the session(s) meets the expected level of performance for this stage of training.

(b) Certification skill check. A mark in this column indicates that the CPC-in-training’s/developmental’s observed performance in the session(s) meets the expected CPC performance requirements and indicates that the developmental/CPC-IT/TMC-IT demonstrates the ability to work this task independently.

(c) Performance skill check for CPC. A mark in this column indicates that the observed performance in the session(s) meets expected CPC performance requirements to work independently.

(2) **NEEDS IMPROVEMENT:** A mark in this column indicates that the developmental’s/CPC-IT’s observed performance is acceptable at this stage of training, but must improve in order to meet certification requirements. Specific comments, along with suggestions or requirements for improvement, must be stated in Block 12 of the form for each job subtask indicated. References must be made to specific procedures, letters of agreement (LOA), orders/directives, etc., in Block 12A.

(a) Performance skill check developmental/CPC-IT/TMC-IT. A mark in this column indicates that the developmental’s/CPC-IT’s observed performance in the session(s) needs improvement of performance for this stage of training.

(b) Certification skill check. A mark in this column indicates that the developmental’s/CPC-IT’s observed performance in the session(s) needs improvement to meet expected CPC performance requirements and indicates that the developmental/CPC-IT/TMC-IT does not demonstrate the ability to work this task independently.

(c) Performance skill check for CPC. A mark in this column indicates that the observed performance in the session(s) needs improvement to meet the expected CPC performance requirements to work independently.

**Figure B-1. Maximum Errors Allowed Per Scenario by Job Task**

Job Task	Oceanic/ Nonradar Lab	Radar- Associate Lab	Radar Sim Lab	Ground Control	Local Control
Separation	0	0	0	0	0
Coordination	2	2	2	2	2
Control Judgment	4	4	5	5	5
Methods and Procedures	4	4	5	5	5
Equipment, Communication, and Other	4	4	5	5	5

**d. Performance Verification (PV):** PV is conducted on students completing initial qualification training conducted at the FAA Academy. A Performance Verification evaluator must place a mark (for example, ✓, X) in the columns “SATISFACTORY,” “NEEDS IMPROVEMENT,” and “UNSATISFACTORY” as defined above.

**Block 12. COMMENTS:** Used by the OJTI, FLM, lab instructor, or PV evaluator to document the developmental’s/CPC-IT’s performance during OJT, skill-check sessions, and simulation training. The OJTI, FLM, lab instructor, PV evaluator must sign and date this block.

**a. OJT.** During OJT, this block is used to document when a mark is made in the “Comment” column on the front of the form. The comments:

- (1) May be specific or general.
- (2) May include exemplary, noteworthy, or unusual events.
- (3) Must describe any observed performance deficiencies. In the case of performance deficiencies, or when improvement is needed in a specific area, references may be made in Block 12A to applicable procedures, LOAs, directives, etc.

**b. Skill Checks.** During skill checks, this block is used to:

- (1) Document performance/progress. The performance/progress description may include comments of exemplary, noteworthy, or unusual events.
- (2) Describe any observed performance deficiencies. When a mark is placed in the “NEEDS IMPROVEMENT” or “UNSATISFACTORY” column, references must be made to specific procedures, LOAs, orders/directives, etc., in Block 12A.

**c. Simulation Training.** This block is used to make explanatory remarks when dots or pluses are marked in the “Simulation Training” column on the front of the form. The comments:

- (1) May include exemplary, noteworthy, or unusual events.
- (2) Must specifically describe all errors observed. References must be made in Block 12A to applicable procedures, LOAs, directives, etc.

**Block 12A. REFERENCES:** References must be included in conjunction with Skill Checks, Skill Enhancement and Simulation Training/PV and include specific procedures, LOAs or directives that would be useful in correcting any performance deficiencies identified. The FLM and/or lab instructor must include paragraph numbers or other specific references in this block. An OJTI may include references in this block.

## **Appendix D. En Route Instructional Program Guide**

**Section 1. Introduction.** This instructional program guide (IPG) includes information about the following four development stages:

- a.** FAA Academy Training (Courses 50143, 50145 and 50146)
- b.** Assistant Controller Training (Course 55053)
- c.** Nonradar/Radar Associate Controller Training (Courses 55054 and 55056)
- d.** Radar Controller Training (Courses 55055 and 55057)

When training certified professional controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the training administrator (TA) must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist.

On-the-job training (OJT) must be conducted and documented as specified in Chapter 6.

**Note:** Applicable to this Appendix, if the area of specialization does not utilize the lesson plans as stated, they are not required. This must be noted in the 3120-1.

### **Section 2. Stage I: FAA Academy Training.**

#### **Section 2A. Air Traffic Basics (En Route)**

##### **(Course 50143)**

**General:** This course is designed for individuals with no air traffic experience. It provides the fundamental aviation/air traffic knowledge needed to prepare developmentals to begin training in their specific air traffic option.

**Prerequisite:** Entry qualifications established for specific hiring source.

**Location:** FAA Academy.

**Training Length:** 200 hours.

**Administration:** Training is administered in an instructor-led environment utilizing FAA Academy-prepared instructional materials and includes the following topics: introduction to the air traffic control (ATC) system, publications, Federal Aviation Regulations, principles of aerodynamics, aircraft types and characteristics, fundamentals of navigation, pilot's environment, flight assistance and emergencies, , wake turbulence, weather, and communications. Instruction is delivered through instructor-led lecture accompanied by graphics and video. Group discussions and exercises with limited hands-on practice and demonstrations are provided. The student is evaluated using block exams and a final comprehensive exam.

**Training Contents:** The course covers 12 areas of instruction contained in 32 lessons.

**Prerequisite:** Successful completion of Stage I PV

**Location:** Field facility

**Training Length:** Site specific

**Administration:** Instructor led training is administered using lesson plans developed by the FAA Academy and the facility and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Center/Area Chart knowledge.
- Flight data processing.
- Computer operations.

After successful completion of instructor-led training, OJT must be conducted in the operational environment in accordance with Chapter 6 of this Order. The TA may delay Stage II OJT until completion of Stage III instructor-led and simulation training. Stage II OJT must be completed prior to starting Stage III OJT.

**1. Instructor Led Training.** The developmental/CPC-IT must successfully demonstrate the following skills and complete the following objectives.

**a. Center Area Chart.** Given a center area chart depicting the location of navigational aids (NAVAID), sector boundaries, adjacent center boundaries, and special use airspace, as applicable, the developmental/CPC-IT must:

- (1) Label each NAVAID/fix with its correct identifier (including the first NAVAID outside the area).
- (2) Label sector boundaries within the student's area of specialization.
- (3) Label special use airspace.
- (4) Label sector boundaries adjacent to the student's area of specialization, both intra and inter facility as applicable.
- (5) Other items as identified by the TA and as documented in the local training order.

**b. Operating Communication System.** Given an operational position containing a communication system (for example, Voice Switching Control System (VSCS), etc.), the developmental/CPC-IT must:

- (1) Place outgoing calls:
  - (a) Locate the interphone jack/dual jack module at the assistant position.
  - (b) Locate the interphone and radio jacks/dual jack module at the controller position.
  - (c) Identify and state the function of the five components of a pushbutton dial.
  - (d) Identify and state the function of the VSCS display module (VDM).
  - (e) Identify and state the function of the key panel module, short ring, ring and flash, and release keys

2. The following FAA Academy-developed lesson plans must be taught via instructor-led or CBI, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT.

Lesson plan E-5-1	Federal Airway & Jet Route System
Lesson plan E-5-2	Voice Switching and Control System (VSCS) Equipment.
Lesson plan E-5-3	Flight Progress Strip Distribution
Lesson plan E-5-4	Computer Operational Equipment.
Lesson plan E-5-5	Computer Field Format
Lesson plan E-5-6	Computer Message Composition and Entry

### 3. Instructor Led Training Evaluation.

a. Locally prepared evaluations must be administered on the following items, as applicable:

- (1) The center chart.
- (2) Processing flight data in the nonautomated and automated modes.
- (3) Computer message entry.

b. Additional evaluations may be developed to evaluate the developmental's progress as deemed necessary to meet facility and/or individual training needs.

4. **OJT.** Through OJT, the developmental/CPC-IT must demonstrate the ability to satisfactorily perform the applicable job subtasks described in Appendix B of this order.

### Section 4. Stage III: Nonradar and Radar Associate Controller Training.

(Courses 55054 and 55056)

**General:** The purpose of this stage is to prepare the developmental/CPC-IT to perform independently (under general supervision) all duties of a nonradar and a radar associate controller on all sectors within the assigned area of specialization and to attain certification on those sectors (Course 55054).

This stage is subdivided into three types of training: instructor-led/situational training, simulation training, and OJT. When training CPC's who have lost operational currency or have transferred from another facility or area of specialization, the TA must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this stage of training.

An optional administration of this stage of development (Course 55056) allows for the developmental/CPC-IT to attain certification on two nonradar/radar associate control positions of operation in an area of specialization. These sectors are selected for OJT and evaluation based on their potential to provide the developmental/CPC-IT with realistic but fair standards in demonstrating an ability to handle control situations anticipated in the assigned area of specialization. After successfully obtaining certification on these two sectors, the developmental/CPC-IT may proceed to the next stage of training, radar control (Course 55057). The TA may delay Stage II OJT until completion of Stage III instructor-led and simulation training. Stage II OJT must be completed prior starting Stage III OJT.

The TA must determine, based on the needs of the facility and the developmental/CPC-IT, if the complete lesson(s) will be instructed or if a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure training is provided to correct any deficiencies identified on the end-of-lesson exam(s), when applicable.

**Prerequisite:** Successful completion of Stage II.

**Instructor led/Situational Training:** This training is conducted under the direction of the facility TA using self-study guides and lesson plans developed at the FAA Academy and at the local facility. Instructor led/situational training should also include training exercises that allow the developmental/CPC-IT to apply the knowledge acquired during the self-study and instructor-led training.

**Simulation Training:** Simulation training consists of familiarization, instructional, and evaluation exercises designed to allow the developmental/CPC-IT to apply the basic skills and knowledge gained during instructor-led/situational training.

**OJT:** After successful completion of instructor-led and simulation training, OJT must be conducted in the operational environment in accordance with Chapter 6 of this order.

**1. Nonradar Instructor led Training.** Instructor led training must include the following:

**a.** The En Route Study Guide (ES-7-1).

**b.** Detailed chart of assigned area of specialization. Given an unlabeled chart or sector maps of the assigned area of specialization depicting low-altitude and high-altitude NAVAID symbols, the developmental/CPC-IT must be able to depict as needed and:

(1) Label each NAVAID in the area of specialization and the first NAVAID outside the area of specialization.

(2) Label adjacent sector and facility boundaries.

(3) Label the airways extending from the first NAVAID outside the sectors.

(4) Label all intersections.

(5) Label the mileage between NAVAIDs and/or fix postings on each route segment, as determined by the TA and as documented in the local training order.

(6) Label all minimum en route altitudes, minimum reception altitude, minimum obstruction clearance altitude, and minimum crossing altitude.

(7) Label restricted, prohibited, and warning areas and other special use areas.

(8) Label all approach control airspace, VFR towers, and flight service stations (FSS).

(9) Label the following information for a minimum of two airports within the area of specialization not served by a full-time approach control facility that have published penetration/approach procedures:

- (a) Initial penetration/approach altitude.
- (b) Initial penetration/approach fix.
- (c) Inbound heading/bearing/radial.
- (d) Missed approach procedures and altitudes.
- c.** Special Military Operations self-study guide and assessments (ES-7-2 and ES-7-2.1 thru ES-7-2.8).
- d.** LOAs and facility orders pertinent to the assigned area of specialization.
- e.** A locally developed exam will evaluate the developmental/CPC-IT's knowledge of how to interpret the various approach plates within the area of specialization.
- f.** Additional requirements as identified by the facility (for example, depict standard instrument departures/standard terminal arrivals, depict Class B, C, D, and E airspace, Phraseology/Strip Marking self-study guide and assessment) and as documented in the local training order.

## **2. Nonradar Instructor led/Situational Training.**

**a.** The facility training department must instruct the following FAA Academy developed training:

- E-8-26 Recording Clearances and Control Information
- E-8-27 Radio and Interphone Communication
- E-8-29 Vertical Separation
- E-8-30 Longitudinal Separation
- E-8-31 Lateral Separation
- E-8-33 General Control and Board Management
- E-8-34 IFR Clearances and Route Assignments
- E-8-35 IFR Flight Direction, Altitude Assignment, and Altimeter Setting
- E-8-38 Approaches
- E-8-39 Initial Separation of Departures/Arrivals and Visual Separation
- E-8-40 Holding Aircraft
- E-8-42 Forwarding Control Information
- E-8-44 Air Traffic Services
- E-8-45 Lost Communication Procedures
- E-8-46 Initiating Emergency Procedures
- E-8-47 VFR and VFR/OTP Procedures
- E-8-48 Special VFR

**b.** Each facility, as determined by the TA, may develop (in accordance with the local training order) nonradar instructor-led skills development exercises that allow developmentals to apply

specific skills and knowledge acquired during academic instruction.

**Example:** For areas of specialization that have sectors where lack of radar coverage requires extensive use of nonradar control procedures, the TA must develop (in accordance with the local training order) nonradar instructor-led skills development exercises. For areas of specialization that have lack of radar coverage or existing procedures that require only occasional use of nonradar control procedures, the TA may determine that no nonradar instructor-led skills development exercises need be administered.

The exercises will provide the developmental/CPC-IT with the opportunity to:

- (1) Record clearances and control information on strips.
- (2) Use correct radio and interphone message format and communication procedures.
- (3) Determine the need for separation (plotting and projecting).
- (4) Issue clearances according to priority.
- (5) Apply effective board management.

### **3. Nonradar Simulation Training.**

**a.** During the nonradar simulation stage of training, the developmental/CPC-IT will apply nonradar ATC procedures in accordance with JO 7110.65 and other pertinent directives. Guidelines for development and administration of simulation scenarios are listed in Appendix D, Section 4, Paragraph 6.

**b.** Nonradar simulation scenarios will be conducted in a one-position sector configuration.

**c. Nonradar Familiarization Scenarios.** The developmental/CPC-IT must be given nonradar familiarization scenarios on one sector in the assigned area of specialization. The scenarios will provide a highly interactive instructional environment in which the instructor and developmental/CPC-IT will be able to discuss strategies and alternatives.

**d. Nonradar Instructional/Evaluation Scenarios.**

(1) Instructional scenarios provide the developmental/CPC-IT with the opportunity to practice performing nonradar ATC duties in a simulated operational environment.

(2) The TA must determine (and as documented in the local training order) the number of nonradar instructional scenarios the developmental/CPC-IT will complete. Periodic evaluation scenarios must be conducted to determine the developmental's progress through the completion of the instructional scenarios.

**Example:** For areas of specialization that have sectors where lack of radar coverage requires extensive use of nonradar control procedures, the TA may require the administration of 11 instructional scenarios, with instructional scenario numbers 8 and 11 as evaluations. For areas of specialization that have sectors where lack of radar coverage or existing procedures require only occasional use of nonradar control procedures, the TA may determine that no instructional scenarios need be administered.

(3) If the developmental's training program calls for the administration of facility developed evaluation scenarios, they must be administered at regular intervals during the nonradar procedures simulated segment of training. The evaluations must be pass/fail. If the developmental/CPC-IT does not successfully complete the scenario, the TA may determine that



skill enhancement training is warranted. The skill enhancement training may include:

- (a) Instructor led training.
- (b) Computer-based instruction (CBI) courseware.
- (c) Instructional scenarios.

Skill enhancement training must be followed by a re-evaluation scenario at the same complexity point level as that at which the failure occurred.

(4) Developmentals must be removed from training if they fail to meet the requirements for satisfactory completion of nonradar training.

**e. Nonradar Scenario Development.** The following situations and procedural items must be included in the simulation scenarios. Other items may be added as deemed appropriate by the TA and as documented in the local training order, based on their applicability in the developmental's sectors.

- (1) Applying separation rules:
  - (a) Crossing, converging, and opposite direction traffic.
  - (b) Overtakes.
  - (c) Separation from: adjacent airspace, obstructions, and special use airspace (SUA).
  - (d) Successive arrivals and departures.
  - (e) Simultaneous arrivals and departures.
  - (f) Arrivals with altitudes inverted.
- (2) Communication and coordination:
  - (a) Hearback/readback errors.
  - (b) Transfer of control and communications.
  - (c) Communication with aircraft through other than direct pilot-controller communication.
  - (d) Inter/intra facility coordination.
  - (e) Coordinate restrictions.
  - (f) Verify information.
- (3) Clearances and control information:
  - (a) IFR clearances.
  - (b) Clearance to alternate airport.
  - (c) VFR-on-top (VFR OTP).
  - (d) VFR traffic encountering IFR.
  - (e) Route change in flight.
  - (f) Arrivals and departures.

- (g) Approaches, including high-altitude IFR approaches.
- (h) Holding.
- (i) Transfer of control and communications.
- (j) Airfiles and VFR popups.
- (k) Pilot deviations.
- (l) Request for altitude change at assigned altitude.
- (4) Procedures:
  - (a) Interphone procedures.
  - (b) Metering/Flow control.
  - (c) Fuel dumping.
  - (d) Approach control saturation.
  - (e) Special flight operations.
  - (f) Military procedures (for example, SUA, altitude reservations (ALTRVs), aerial refueling).
- (5) Emergencies and Equipment Outages:
  - (a) Loss of communication.
  - (b) Inflight emergencies.
  - (c) Aircraft with minimum fuel.
  - (d) National Airspace System (NAS) control equipment failures (for example, communications, NAVAIDs).
  - (e) Inflight equipment malfunctions.
  - (f) Overdue aircraft.
  - (g) Hijacking.
- (6) Weather:
  - (a) Reporting and disseminating weather information.
  - (b) Changes to routes due to weather (for example, departures, arrivals, en route).

**f. Nonradar Scenario Complexity Workload.** The worksheet on the following pages (Figure D-2) is used in determining the complexity workload for each nonradar scenario. The worksheet allows inclusion of the particular characteristics encountered in each sector for which scenarios are being developed. After establishing the desired complexity level for a given scenario, use the worksheet to arrive at the desired numerical total plus or minus three points for that scenario. Local reproduction of this worksheet is approved.

(a) Reporting and disseminating weather information.

(b) Changes to routes due to weather (for example, departures, arrivals, en route).

f. During the radar associate simulation stage of training, the developmental/CPC-IT will perform the following in accordance with FAAO 7110.65:

(1) Issue clearances using correct phraseology.

(2) Forward control information using correct phraseology.

(3) Record clearances and control information on strips/URET, using approved symbols and abbreviations.

(4) Communicate using radio and interphone procedures.

(5) Use effective automated/manual board management techniques.

(6) Demonstrate situational awareness.

(7) Obtain information from an aircraft in an emergency and notify the proper facilities.

(8) Obtain and disseminate weather information.

(9) Demonstrate knowledge of all applicable letters of agreement.

(10) Demonstrate knowledge of the assigned area of specialization.

(11) Give and receive a position relief briefing.

**g. Radar Associate Scenario Difficulty.** This section covers the development of radar associate scenarios. A radar associate must control varying volumes of traffic and resolve situations of varying complexity. Volume level is the basic criterion for scenario development.

(1) Complexity factor. Scenario complexity is based on the number of situations which require a radar associate controller to apply the various procedures in FAAO 7110.65, such as separation, making/receiving handoffs, VFR-weather advisories, vectoring, and emergencies.

(2) Volume level criteria. This element refers to the hourly operations rate.

(a) The hourly operations rate is based on 100 % traffic volume from an average period of a busy day (as defined and validated by the facility and included in the facility training order).

(3) Guidelines for radar associate scenarios.

(a) Conflict alert must be deactivated during every other scenario, and during all evaluation scenarios.

(b) Position relief briefings must be received and given on all instructional scenarios.

(4) Scenario program example. The example in Figure D-4 shows how a training program may be designed to fulfill the requirements of this stage.

(10) A preparatory evaluation scenario must be administered prior to the first evaluation scenario.

(11) Developmentals cannot be evaluated on any procedures or situations that they have not had experience with in previous scenarios.

(12) The instructor must assist, as necessary, to keep scenario continuity, except during pass/fail evaluation scenarios.

(13) If the developmental/CPC-IT does not meet the requirements for successful completion of the scenario, the TA may determine that skill enhancement training is warranted. This training may include:

- (a) Instructor led training,
- (b) CBI training, and/or
- (c) Scenarios.

**Note:** Skill enhancement training will be followed by an evaluation scenario at the same level as the scenario that the developmental/CPC-IT did not complete satisfactorily.

(14) If the developmental/CPC-IT does not meet the requirements for successful completion after skill enhancement training, the provisions of HRPM EMP-1.14 must be followed.

#### **d. Guidelines for the Development of Simulation Scenarios.**

(1) Complexity factors. Complexity factors are those situations which require a radar controller to apply the various procedures in FAAO 7110.65 and other applicable directives. (See examples in Appendix D, Section 5, Paragraph 2e.) The number of complexity factors in a scenario must be increased as the volume level is increased.

(2) Volume level criteria. See Appendix D, Section 4, paragraph 5g(2) for detailed instructions.

(3) Instructor Guide and Remote Guide. See Appendix D, Section 4, paragraphs 6c and 6d for instructions.

(4) Conflict alert must be deactivated during every other scenario and during all evaluation scenarios.

(5) Scenarios must include unusual situations and seldom-used procedures.

(6) Scenarios should reflect the current operations in the developmental's area of specialization.

(7) Position relief briefings must be received and given on all simulation scenarios.

**e. Radar Instructional Scenario Complexity Factors.** The following complexity factors (situations and procedural items) should be included in the scenarios based on their applicability in the area of specialization. The TA must determine (and as documented in the local training order) which of the following situations and procedural items will be included in the evaluation scenarios.

(1) All radar identification methods and radar termination.

## **Appendix F. Terminal Instructional Program Guide**

### **Section 1. Introduction.**

This instructional program guide (IPG) includes information about the following seven development stages:

1. FAA Academy Training (Courses 50043, 50046, 50055001, and 50034)
2. Flight Data (FD) (Course 55060)
3. Clearance Delivery (CD) (Course 55061)
4. Ground Control (GC) (Course 55062)
5. Local Control/Cab Coordinator (LC/CC) (Course 55063)
6. Non-radar/Handoff/Coordinator (NR/HO/CI) (Course 55064)
7. Radar Control (RC) (Course 55065)

**Note:** Stages 2 through 7 are intended to be taught sequentially; however, the instructional process is designed to give facilities the flexibility to tailor the training program to the needs of the individuals in training and the facility. This will permit a more effective and successful training experience. A Facility Manager, or his/her representative, may determine the appropriate sequencing of these development stages. For example: Stage II and Stage IV must be completed prior to or simultaneously with Stage V; Stage VI must be completed prior to or simultaneously with Stage VII; and all development Stages must be completed prior to promotion to Certified Professional Controller (CPC).

**Note:** Applicable to this Appendix, if the area of specialization does not utilize the lesson plans as stated, they are not required. This must be noted in the 3120-1.

### **Section 2. Stage II: Flight Data Position Training.**

#### **(Course 55060)**

**General:** The purpose of this stage is to prepare the developmental/CPC-IT to perform independently (under general supervision) all duties of the Flight Data position within the Air Traffic Control Tower (ATCT) and/or Terminal Radar Approach Control (TRACON) and to attain certification on those positions.

This stage of training is administered in two parts: instructor-led training and on-the-job-training (OJT). The instructor-led training uses facility-prepared instructional materials to supplement the FAA Academy prepared materials. When training Certified Professional Controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the Training Administrator (TA) must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this stage of training.

**Prerequisite:** Successful completion of Stage I or individual meets direct entry qualifications established for specific hiring source.

**Location:** Field facility

**Training Length:** Site specific

**Administration:** Facilities with limited training resources must utilize FAA Academy student lesson plans and develop self-study materials that will cover all of the required local knowledge and procedures. Contractor-supported training should be developed to facilitate support of training initiatives, as required. Instructor led training is administered using lesson plans developed by the FAA Academy and/or the facility and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Tower Cab-airport and/or TRACON position-airspace layout.
- Local Standard Operating Procedures (SOP) and Letters of Agreement (LOA)
- Equipment operations.

After successful completion of instructor-led/simulation training (as appropriate), OJT must be conducted in the operational environment in accordance with Chapter 4 of this order.

**Note:** Facilities may delay FD/radar FD OJT until completion of CD and/or GC-LC/CC instructor-led, Stage 6 and 7 instructor-led and simulation training.

**Instructor led Training.** The individual must successfully demonstrate the skills listed below in accordance with FAAO 7110.65, FAAO 7210.3, and local directives, and must pass an examination with a score of 90% or higher (unless otherwise stipulated) on the material. Locally prepared evaluations must be administered, as applicable.

**Note:** The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) must be instructed or if a review of the lessons is sufficient. This can be determined by administering an exam. If the developmental/CPC-IT passes the exam on one or more of the lessons with a score of 95% or higher (a CLEP style opportunity), he or she may be excused from taking the other lesson(s).

**a. Tower Flight Data: Airport Diagram/ATCT Airspace.**

**Note:** The TA must determine which portions of the following items to administer in the instructor-led based on facility specific Flight Data functions.

(1) Airport Diagram. Given an airport diagram depicting the location of runways, taxiways, navigational aides (NAVAIDS), air carrier/air taxi/general aviation ramps and special operations areas, as applicable, the developmental/CPC-IT must:

- (a) Label each runway, indicating length, width, and magnetic heading.
- (b) Label all taxiways, ramp areas, and Special Operations areas.
- (c) Label any airport NAVAIDS, including Instrument Landing System (ILS) critical areas, as applicable.

(2) ATCT Airspace. Given the Air Traffic Control Tower (ATCT) airspace diagram depicting the location of NAVAID, Tower airspace boundaries, and special use airspace, as applicable, the developmental/CPC-IT must:

- (a) Label each NAVAID/fix with its correct identifier (including the first NAVAID

outside the Tower airspace).

- (b) Label sector boundaries, both inter- and intra-facility.
- (c) Label special use airspace, as applicable.
- (d) Label other items as identified by the TA.

**b. TRACON Flight Data: TRACON Airspace.**

**Note:** The TA must determine (and as documented in the local training order) which portions of the following items are to be administered in the instructor-led based on facility specific Flight Data functions.

Given a TRACON airspace diagram depicting the location of NAVAIDs, sector boundaries, and special use airspace, as applicable, the developmental/CPC-IT must:

- (1) Label each NAVAID/fix with its correct identifier (including the first NAVAID outside the TRACON airspace) and all associated Victor/Jet airways, SIDS/STARS;
- (2) Label sector boundaries, both inter- and intra-facility;
- (3) Label special use airspace, as applicable; and
- (4) Label other items as identified by the TA.

**c. Operating Communication System.** Given a simulated (if available) position containing a communication console system, the developmental/CPC-IT must:

- (1) Place outgoing calls:
  - (a) Locate the interphone jack/dual jack module at the handoff position; and
  - (b) Locate the interphone and radio jacks/dual jack module at the controller position;

and

  - (c) Identify and state the function of a headset versus a handset.
  - (d) Identify and state the function of the operating communication console system;

and

  - (e) Identify and state the function of the key panel module and release keys;
  - (f) Place direct access calls; and
  - (g) Place override calls.
- (2) Receive incoming calls:
  - (a) Identify the basic components of the system on which incoming calls are received;
  - (b) Identify the audio/visual signals for an incoming call; and
  - (c) Identify how to answer, transfer, hold, and/or over-ride calls.

**d. Flight Data Position (Non-automated).** The TA may determine, based on the configuration of the ATCT and/or TRACON, that no training is required on the non-automated mode of the flight data position. At the TA's discretion, and given an operational position, flight

progress strips, and flight plan information, the developmental/CPC-IT must identify the full range of flight data duties in the non-automated mode, including:

- (a) Post and forward flight plan information.
- (b) Apply flight data procedures applicable to the ATCT and/or TRACON.
- (c) Format the Automated Terminal Information Services (ATIS) for non-digital applications, if applicable.
- (d) Place the strips in the appropriate bay for the receiving positions.

**e. Flight Data Position (Automated).** Given a simulated (if available) position in an automated environment that contains a computer entry device, the developmental/CPC-IT must:

- (1) Identify and state the function of the:
  - (a) Flight Data Input-Output (FDIO) keyboard and subsequent printer.
  - (b) Digital ATIS (D-ATIS) format applications, if applicable.
  - (c) Information display system (IDS) display, if applicable.
- (2) Prepare and enter computer messages in correct format.
- (3) Respond to computer-generated messages.
- (4) If applicable, pick up and sequence the strips and deliver them in the appropriate bay for the receiving positions.

## 2. Lesson Plans.

**Note:** The following FAA Academy developed lesson plans (if available) must be taught via instructor-led training, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine (and as documented in the local training order), based on the needs of the facility, and the developmental/CPC-IT, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s), when applicable.

Lesson plan TM-4-1: FDIO System User Manual

Lesson plan AC-00-45E: Aviation Weather Services

Lesson plan METAR: Aviation Routine Weather Report

Lesson plan: Communications Console

Lesson plan: FDIO CBI

## 3. Instructor Led Training Evaluation.

- a.** Locally prepared evaluations must be administered on the following items, as applicable:
  - (1) The Tower CAB-airport and/or TRACON position-airspace layout.
  - (2) Processing flight data in the non-automated and automated modes.



(3) Computer message entry.

**b.** Additional evaluations may be developed to evaluate the developmental's/CPC-IT's progress, as deemed necessary to meet facility and/or individual training needs.

If the individual is not successful on the instructor-led evaluation the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

**4. OJT.** Through OJT, the developmental/CPC-IT must demonstrate the ability to satisfactorily perform the applicable job subtasks described in Appendix B of this order.

**5. OJT Checklist.** OJT checklists should be used as a mutual training tool for the OJTI and the developmental/CPC-IT. When a checklist is used, the developmental/CPC-IT must be provided with the appropriate stage checklist during the initial training team meeting for that stage. Facilities may develop checklists locally. A sample OJT checklist of Radar Control is provided as an example. Completed OJT Checklist forms must be retained with other required training documentation.

#### **Section 4. Stage III: Clearance Delivery Position Training.**

**(Course 55061)**

**General:** The purpose of this stage is to prepare the developmental/CPC-IT to perform independently (under general supervision) all duties of the Clearance Delivery position within the Air Traffic Control Tower (ATCT) and/or Terminal Radar Approach Control (TRACON) and to attain certification on those positions.

This stage of training is administered in three parts: instructor-led training, simulation (if available and is optional), and on-the-job training (OJT). The instructor-led training uses facility-prepared instructional materials to supplement the FAA Academy prepared materials. When training Certified Professional Controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the Training Administrator (TA) must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this stage of training.

**Prerequisite:** Successful completion of Stage I

**Location:** Field facility

**Training Length:** Site specific

**Administration:** Facilities with limited training resources must utilize FAA Academy student lesson plans and develop self-study materials that will cover all of the required local knowledge and procedures. Contractor-supported training should be developed to facilitate support of training initiatives, as required. Instructor led training is administered using lesson plans developed by the FAA Academy and the facility and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Airport layout and/or TRACON airspace.

- Standard Operating Procedures (SOP) and Letters of Agreement (LOA)
- Equipment operations.

After successful completion of instructor-led/simulation training (as appropriate), OJT must be conducted in the operational environment in accordance with Chapter 6 of this order.

**Note:** Facilities may delay CD OJT until the completion of FD-GC-LC/CC instructor-led and simulation training.

**Note:** Facilities with the capabilities to do so should require airport tours as part of the OJT requirements.

**1. Instructor Led Training.** The individual must successfully demonstrate the skills listed below in accordance with FAAO 7110.65, FAAO 7210.3, and local directives, and must pass an examination with a score of 90% or higher (unless otherwise stipulated) on the material. Locally prepared evaluations must be administered, as applicable.

**Note:** The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) must be instructed or whether a review of the lessons is sufficient. This can be determined by administering an exam. If the developmental/CPC-IT passes the exam on one or more of the lessons with a score of 95% or higher (a CLEP style opportunity), he or she may be excused from taking the other lessons.

**Note:** The following FAA Academy developed lesson plans (if available) must be taught via instructor-led, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

**a. Part I—Clearance Delivery. FAA Academy Lessons.**

- (1) State the functions of the clearance delivery position.
- (2) List the conditions for which departure clearances or departure instructions would be issued.
- (3) List IFR departure clearance items in sequence.
- (4) State when the term “ATC” shall be used as a clearance prefix.
- (5) Define clearance limit.
- (6) Describe a NAVAID fix, as determined by reference to a radial and distance from VORTAC when the fix is not named.
- (7) State when the directions of a takeoff/turn or initial heading to be flown may be specified.
- (8) State the standard phraseology used when necessary to assign a crossing altitude that differs from the SID altitude.

(9) State the requirement that is applicable when route or altitude in a previously issued clearance is amended.

(10) State the standard phraseology used to assign frequency and beacon code information to departing IFR aircraft.

(11) Match beacon codes with the appropriate IFR departure categories.

(12) List the conditions that must be met in order to issue an abbreviated departure clearance.

(13) State the conditions and standard phraseology used to issue SVFR clearances.

(14) State the conditions and standard phraseology used to issue a VFR/OTP clearance.

(15) Select the provisions that should be included in gate hold procedures.

(16) Select the provisions that should be included in pre-taxi clearance procedures.

**b. Part II—Site-Specific Clearance Delivery.**

(1) Describe the procedures and phraseology pertaining to:

- (a) Gate hold procedures; and
- (b) Delivery of clearances.

(2) Explain the procedures and coordination requirements for:

- (a) Processing flight progress strips;
- (b) Processing flight plans (jet routes, prop routes, etc.); and
- (c) Processing clearance requests.

(3) Explain the application of all position-related items in:

- (a) Letters of Agreement (LOA);
- (b) Directives; and
- (c) Position binders.

(4) Equipment

- (a) Demonstrate ARTS/STARS data entry functions (if applicable);
- (b) Terminal data link system, if applicable:
  - (i) Explain the requirements for participation in pre-departure clearance (PDC);
  - (ii) Identify the processing of clearances through PDC; and
  - (iii) Issue clearances through PDC.

(5) Position Relief Briefing Procedures. Describe the procedures for conducting/receiving position relief briefings.

**2. Lesson Plans.** The following FAA Academy developed lesson plans (if available) must be taught via instructor-led, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s)

will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

- a. Lesson plan TS-3-1: Clearance Delivery.

### **3. Instructor led Training Evaluation.**

- a. Locally prepared evaluations must be administered on the following items, as applicable:

- (1) Information contained in the Part 1 Academy lesson plans.
- (2) Clearances and issuing various clearances.
- (3) Weather and issuing weather.
- (4) ARTS/STARS keyboard entries.
- (5) PDC equipment and procedures.
- (6) Local airport information.
- (7) Local strip marking.
- (8) Knowledge of Tower En Route clearance compositions and associated LOAs.

A training review board is not required for instructor-led or simulation training failure.

### **4. Simulation Training (if available and is optional).**

#### **a. General.**

- (1) The developmental/CPC-IT will apply ATC procedures in accordance with all applicable directives.
- (2) The developmental/CPC-IT must complete scenarios at a lower level of complexity first and progressively work to the highest level.
- (3) The results of the developmental's/CPC-IT's performance during each scenario must be recorded on FAA Form 3120-25 and discussed with the developmental/CPC-IT (see Appendix B). Forms used during evaluation scenarios must be retained in the developmental's/CPC-IT's training folder, as specified in Chapter 5, Section 4.
- (4) Up to 1 hour must be allotted for the control problems. This does not include the time spent for briefing and critique. The instructor is not precluded from terminating the simulated problem prior to the time indicated if it has been determined that the maximum instructional benefit of the problem has been derived.
- (5) The TA must determine the number of instructional scenarios the developmental/CPC-IT will complete. Evaluation scenarios must be administered at regular intervals during the simulation segment of training. Simulation scenarios will be counted as simulation hours. A minimum and maximum number of simulation hours should be established in the local training order.
  - (a) Familiarization Scenarios. The developmental/CPC-IT must be given Clearance Delivery familiarization scenarios that cover all Clearance Delivery positions in the facility. These scenarios should emphasize the importance of effective interaction between the Clearance

Delivery position and other Tower team members.

**Example:** The first two Familiarization Scenarios should also place additional emphasis on equipment (e.g., button logy, keyboarding).

(b) Instructional Scenarios. Instructional scenarios provide the developmental/CPC-IT with the opportunity to practice performing Clearance Delivery ATC duties in a simulated operational environment.

(c) Simulation Evaluation. Evaluation scenarios must be administered at regular intervals during the instructional scenario segment of training. The evaluations must be pass/fail.

- (i) A preparatory evaluation scenario must be administered prior to the first evaluation scenario.
- (ii) DEVs/CPC-ITs must not be evaluated on any procedures or situations that they have not had experience with in previous scenarios.
- (iii) The instructor must assist, as necessary, to maintain scenario continuity, except during pass/fail evaluation scenarios.
- (iv) Instructions on documenting and grading the evaluation are contained in Appendix B. The following chart must be used to grade the scenarios:

**Maximum Errors Allowed Per Scenario by Job Task**

<b>Job Task</b>	<b>Maximum Errors</b>
Separation	0
Coordination	2
Control Judgment	5
Methods and Procedures	5
Equipment, Communication, and Other	5

(6) If the developmental/CPC-IT does not meet the requirements for successful completion of an evaluation scenario, the TA may determine that skill enhancement training is warranted. The skill enhancement training may include:

- (a) Instructor led training and/or
- (b) Instructional scenarios.

**Note:** Skill enhancement training must be followed by an evaluation scenario at the same complexity level as the scenario that the developmental/CPC-IT was unsuccessful

(7) If the developmental/CPC-IT does not meet the requirements for successful completion after skill enhancement training, the provisions of the most recent Human Resources Policy Manual must be followed. A Training Review is not required for instructor-led or simulation training failure.

**b. Scenario Development.** The following situations and procedural items must be included in the familiarization and instructional scenarios if applicable to the facility/position. Other items may be added as deemed appropriate by the TA, based on their applicability to the

individual position:

- (1) Issue an Instrument Flight Rules (IFR) clearance.
- (2) Issue a Special Visual Flight Rules (SVFR) clearance.
- (3) Issue an IFR clearance to maintain VFR conditions on top (VFR/OTP).
- (4) Utilize Pre-Departure Clearances/Tower Data Link Services (PDC/TDLS) equipment.
- (5) Correct improper routing.
- (6) Assign correct Tower En Route Control (TEC) routes.
- (7) Demonstrate proper strip marking.
- (8) Process flight progress strips.

Following in accordance with JO 7110.65:

- (1) Issue IFR, SFVR, or VFR/OTP clearances using standard phraseology.
- (2) Implement Gate Hold procedures.
- (3) Process flight progress strips.
- (4) Record clearances and control information on strips, using approved symbols and abbreviations.
- (5) Communicate using radio and interphone procedures.
- (6) Use effective board management techniques.
- (7) Demonstrate situational awareness.
- (8) Demonstrate knowledge of all applicable letters of agreement.
- (9) Give and receive a position relief briefing both before and after a scenario.

**d. Scenario Difficulty.** This section covers the development of scenarios. A developmental/CPC-IT must control varying volumes of traffic and resolve situations of varying complexity. Volume level is the basic criterion for scenario development.

(1) Complexity factor. Scenario complexity is based on the number of situations that require clearance delivery to apply the various procedures in JO 7110.65, such as issuing clearances, ensuring accurate readback of control instructions, and processing flight progress strips.

(2) Position relief briefings must be received (before) and given (after) each instructional scenario.

(3) Scenario program example. The example in Figure F-1, Sample Simulation Scenarios, shows how a training program may be designed to fulfill the requirements of this stage.

**Figure F-0-1. Sample Simulation Scenarios**

Scenario	Volume (%)	Type
A	70	Familiarization

Scenario	Volume (%)	Type
B	70	Familiarization
C	75	Familiarization
D	75	Familiarization
E	75	Familiarization
1	80	Instructional
2	80	Instructional
3	80	Evaluation-Preparatory
4	80	Instructional
5	80	Evaluation (Pass/Fail)
6	85	Instructional
7	85	Instructional
8	90	Instructional
9	90	Instructional
10	90	Evaluation (Pass/Fail)
11	95	Instructional
12	95	Instructional
13	95	Instructional
14	100	Instructional
15	100	Evaluation (Pass/Fail)

**e. Additional Scenarios.**

(1) Following successful completion of the evaluations and prior to the start of OJT, additional control scenarios may be administered on each sector in the developmental's/CPC-IT's area of specialization. These scenarios are intended to introduce the developmental/CPC-IT to sector-specific operations and traffic flows.

(2) The scenarios will provide a highly interactive instructional environment in which the instructor and developmental/CPC-IT will be able to discuss strategies and alternatives.

(3) The number of scenarios will be determined by the TA based on the needs of the facility.

(4) Control scenarios may use combined sector and position configurations.

**5. OJT.** Through OJT, the developmental/CPC-IT must demonstrate the ability to perform the applicable job subtask described in Appendix B of this order successfully

**6. OJT Checklist.** OJT checklists should be used as a mutual training tool for the OJTI and the developmental/CPC-IT. When a checklist is used, the developmental/CPC-IT must be provided with the appropriate stage checklist during the initial training team meeting for that stage.

Facilities may develop checklists locally. A sample OJT checklist of Radar Control is provided as an example. Completed OJT Checklist forms must be retained with other required training documentation.

### **Section 5. Stage IV: Ground Control Position Training.**

**(Course 55062)**

**General:** The purpose of this stage is to prepare the developmental CPC-IT to perform independently (under general supervision) all duties of the Ground Control (GC) position within the Air Traffic Control Tower (ATCT) and to attain certification on those positions.

This stage of training is administered in three parts: instructor-led training, simulation (if available), and on-the-job training (OJT). The instructor-led training will use facility-prepared instructional materials to supplement the FAA Academy prepared materials. When training Certified Professional Controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the Training Administrator (TA) must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this stage of training.

**Prerequisite:** Successful completion of Stage I.

**Location:** Field facility

**Training Length:** Site specific

**Administration:** Facilities with limited training resources must utilize FAA Academy student lesson plans and develop self-study materials that will cover all of the required local knowledge and procedures. Contractor-supported training should be developed to facilitate support of training initiatives, as required. Instructor led training is administered using lesson plans developed by the FAA Academy and the facility, and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Airport layout
- Local procedures
- Equipment operations

After successful completion of instructor-led/simulation training (as appropriate), OJT must be conducted in the operational environment in accordance with Chapter 6 of this order.

**Note:** Facilities may delay GC OJT until completion of LC/CC instructor-led and simulation training.

**Note:** High-fidelity simulators (e.g., Tower Simulation Systems (TSS)) are the preferred method of conducting simulation training, utilizing locally developed scenarios as described in this section on a pass/fail basis. All facilities must conduct simulation training utilizing either high-fidelity simulators or table-top simulations prior to starting OJT.

**Note:** Facilities with the capabilities to do so should require airport tours as part of the OJT requirements.

**Exception:** Table-top/CAB LAB simulation training is not subject to the pass/fail



evaluation.

**1. Instructor led Training.** The individual must successfully demonstrate the skills listed below in accordance with JO 7110.65, JO 7210.3, and local directives, and must pass an examination with a score of 90% or higher (unless otherwise stipulated) on the material. Locally prepared evaluations must be administered, as applicable.

**Note:** The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) must be instructed or whether a review of the lessons is sufficient. This can be determined by administering an exam. If the developmental/CPC-IT passes the exam on one or more of the lessons with a score of 95% or higher (a CLEP style opportunity), he or she may be excused from taking the other lessons.

**Note:** The following FAA Academy developed lesson plans (if available) must be taught via instructor-led, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

**a. Part I—Ground Control. FAA Academy Lessons.**

- (1) Aircraft recognition and characteristics.
- (2) Airport utilization.
- (3) Console instruments.
- (4) Ground control procedures.
- (5) Taxi information and clearances.
- (6) Emergency procedures and unusual situations.

**b. Part II—Site-Specific Ground Control.**

- (1) Position-associated equipment. The individual must use and apply procedures for ground control position equipment, including:
  - (a) Radio/telephone main and standby equipment.
  - (b) NOTAM, Pilot Weather Reports (PIREP), and weather-posting locations.
  - (c) Flight Data Input/Output (FDIO) printer and keyboard.
  - (d) Digital Automatic Terminal Information Service (D-ATIS)/ATIS recording equipment.
  - (e) Runway Visual Range (RVR) digital panel, RVR meter, and/or Runway Visibility Value (RVV) meter.
  - (f) Visibility chart.
  - (g) System Information Area (SIA).
  - (h) Light gun.

(i) Bright Radar Indicator Tower Equipment (BRITE)/DBRITE/Tower Display Workstation (TDW).

(j) Airport Surface Detection Equipment (ASDE and ASDE-X).

(k) Airport lighting systems.

(l) Approach lighting systems.

(m) Obstruction lighting.

(n) Personnel safety equipment.

(o) Automated Radar Terminal Systems/Standard Terminal Automation Replacement System (ARTS/STARS) keyboard.

(2) Airport Diagram. The individual must be able to:

(a) Indicate airport elevation and point of reference.

(b) Identify landing and takeoff areas as follows:

(i) Runways, including:

(aa) Number and magnetic heading.

(bb) Surface composition (other than hard surface).

(cc) Marking special or restrictive use.

(dd) Length and width.

(ee) Distance remaining from intersections.

(ff) Lighted or unlighted, arresting barriers/cable systems.

(ii) Helicopter pad(s), including:

(aa) Location(s).

(bb) Identification.

(cc) Marking.

(c) Identify the following areas and indicate whether they are movement areas or non-movement areas:

(i) Taxiways:

(aa) Width.

(bb) Number and identification.

(cc) Lighted or unlighted.

(dd) Restrictions.

(ii) Ramp and gate locations:

(aa) Itinerant.

(bb) Air taxi.

- (cc) Fixed-Base Operations (FBO).
- (dd) Air carrier.
- (ee) Military.
- (ff) Cargo.
- (gg) Helicopter.
- (hh) Restrictions.
- (iii) Special-use areas:
  - (aa) Runup and “jet blast walls.”
  - (bb) Compass rose.
  - (cc) Bomb detection.
  - (dd) Explosive cargo.
  - (ee) Very high frequency omnidirectional range (VOR) checkpoints.
  - (iv) Critical areas.
- (v) Special taxi routes.
  - (aa) Surface movement guidance control.
  - (bb) Preferred taxi routes.
  - (cc) Inbound.
  - (dd) Outbound.
- (d) Identify structures and support facilities, including:
  - (i) Emergency equipment.
  - (ii) Hangars:
    - (aa) Fixed base.
    - (bb) Air carrier.
    - (cc) Military.
    - (dd) Private.
  - (iii) Building and facilities—terminals:
    - (aa) Main.
    - (bb) Air carrier.
    - (cc) Itinerant and air taxi.
    - (dd) Military.
    - (ee) Cargo.
  - (iv) Facilities:
    - (aa) Tower.

- (bb) Radar site.
- (cc) Transmitter and receiver site.
- (dd) Transmissometer site.
- (ee) Flight Service Station/Automated Flight Service Station (FSS).
- (ff) Flight Standards field elements.
- (gg) Technical operations field elements.
- (hh) Airport district office.
- (v) Customs.
- (vi) Security.
  - (aa) Airport management.
  - (bb) Offices.
  - (cc) Maintenance.
- (vii) Weather Service Office.
- (3) Procedures.
  - (a) The individual must explain the application of procedures contained in the following publications as they pertain to the ground control position:
    - (i) FAA orders and/or handbooks.
    - (ii) Facility directives and memoranda.
    - (iii) Letters of Agreement (LOA).
    - (iv) Reading binder.
    - (v) Aeronautical Information Manual (AIM).
  - (b) Describe procedures for conducting/receiving position relief briefings.

## 2. Lesson Plans.

The following FAA Academy developed lesson plans must be taught via instructor-led training, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

- Lesson plan TS-4-1 Aircraft Recognition and Characteristics
- Lesson plan TS-4-2 Airport Utilization
- Lesson plan TS-4-3 Console Instruments
- Lesson plan TS-4-4 Ground Control Procedures

Lesson plan TS-4-5 Taxi Information and Clearances

Lesson plan TS-4-6 Emergency Procedures and Unusual Situations

### 3. Instructor led Training Evaluation.

a. Locally prepared evaluations must be administered on the following items, as applicable:

- (1) Information contained in the Part 1 FAA Academy lesson plans.
- (2) Airport Layout/Diagram.
- (3) Local equipment and procedures.

b. Additional evaluations may be developed to evaluate the developmental's/CPC-IT's progress, as deemed necessary, to meet facility and/or individual training needs.

**Note:** If the individual is not successful with the final graded exam, the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

### 4. Simulation Training.

Simulation training is being administered at Terminal facilities using the capabilities of the simulation equipment. This provides the developmental/CPC-IT an opportunity to learn and demonstrate, under simulated conditions, all the knowledge and skills required of a Certified Professional Controller (CPC).

#### a. General.

(1) At facilities where simulation equipment is available, the TA will determine the number of tower simulation training scenarios that the individual must complete. Periodic evaluation scenarios will be conducted to determine the individual's progress through the completion of the scenarios.

**Example:** The TA may require the administration of 18 simulation training Ground Control scenarios with numbers 6, 10, 14, and 18 as pass/fail evaluations.

(2) It is necessary to complete instructional scenarios at the lowest complexity level first and to progressively work up to the highest. Scenarios at a given complexity level may be administered in any order to provide variation. The developmental/CPC-IT will be required to complete training on a given set of control scenarios similar to those in the operational position. This requirement will ensure the developmental's/CPC-IT's exposure to the many prescribed special events and control situations that could occur.

(3) Simulation scenarios will be counted as simulation hours. A minimum and maximum number of simulation hours should be established in the local training order.

(4) Up to one hour must be allotted for the control scenarios. This does not include the time spent for briefing and critique. The instructor is not precluded from terminating the simulated scenario prior to the time indicated if it has been determined that the maximum instructional benefit of the scenario has been derived.

(5) The results of the individual's performance during each scenario must be recorded on FAA Form 3120-25 and discussed with the individual. (See Appendix B.) Forms used during

the evaluation scenario must be retained and filed in the individual's training folder.

**b. Control Problem Development.**

(1) Definitions.

(a) Volume level - A factor expressed as a percentage of the traffic worked during a typical busy period.

(b) Complexity - The number of situations that require thought to resolve an issue or conflict.

(2) General Objectives. To achieve standardization of volume level and problem complexity for all field facilities, the following problem development procedures have been established:

(a) Instructional scenarios must be developed for an operational position starting at the 50% volume level and progressively increasing to the 110% volume level. The additional 10% must be added to ensure that the developmental/CPC-IT encounters a greater volume of traffic than he/she will normally be expected to control.

(b) The formula is based on 110% traffic volume from an average period of a busy day (as defined and validated by the facility).

(c) To protect scenario integrity, some variations of the scenarios should be made. Changes in aircraft identifications, equipment types, altitudes, and times are usually adequate for developing scenario variations. Selecting random aircraft for special situations will also add depth to scenario variations.

(d) The instructor must determine the weather, flight conditions, ground vehicle traffic, and any abnormal conditions that may affect the overall scenario complexity and controller workload. The instructor must simulate these conditions as closely as possible to add realism to the scenario.

(e) The instructor must randomly incorporate pilot readback errors throughout the control scenarios. These are intentional readback errors made by ghost pilots to the developmental/CPC-IT in order to evaluate the developmental's/CPC-IT's listening skills.

(f) All instructional scenarios must have specific objectives and be directed toward developing the knowledge and ability of those receiving the training. The instructor must ensure that all scenario objectives are met.

(g) The instructor must introduce operations or situations that directly relate to scenario complexity. Normally it is more effective to introduce these complexity factors at a lower volume level to facilitate learning the associated procedure. If normal operational requirements dictate predetermined changes in runway or airspace configurations or changes in services provided at an operational position which affect complexity, separate scenarios should be administered for each change. Each scenario must state objectives, volume level, and complexity factors.

(h) Positive and methodical steps must be taken when developing simulated tower instructional scenarios. Complexity, special control events, abnormal traffic situations, weather conditions, script development, and instructor guides need to be considered to achieve the desired objectives.

**c. Simulation Training Scenario Objectives.** Each scenario may contain one or more of the duties listed below. By the completion of this training, the developmental/CPC-IT must have independently performed all applicable duties.

- (1) Coordinate with Local Control (LC) for runway crossings/usage.
- (2) Issue progressive taxi instructions.
- (3) Use intersection departure procedures and phraseology.
- (4) Issue hold short instructions.
- (5) Issue abbreviated transmissions.
- (6) Ensure readback/hearback.
- (7) Ensure vehicles/aircraft hold short of runway.
- (8) Utilize ASDE-X/ASDE/Airport movement area safety system procedures.
- (9) Preclude aircraft movement in the Instrument Landing System/Microwave Landing System (ILS/MLS) critical areas, as appropriate.
- (10) Provide current ATIS/weather information.
- (11) Request PIREP for braking action, low level wind shear, visibility, etc.
- (12) Issue Significant Meteorological Information (SIGMET)/Hazardous in-flight weather advisory service.
- (13) Understand the priority of duty.
- (14) Issue Estimated Departure Clearance Times (EDCT).
- (15) React appropriately to emergency or unusual situations (for example, observing a cargo door ajar or smoke from an engine).
- (16) Respond to suspicious activity/man-portable air defense systems (MANPADS).
- (17) Apply additional facility-identified procedures.

**Note:** The guidelines listed above have proven to be most effective when developing control scenarios. There may be other methods, such as selecting one hour's traffic from the actual position and administering it as a control scenario. There are pitfalls to this type of scenario development, however, because of the wide variation among traffic situations and because real traffic, as experienced from one position, does not always include typical air traffic occurrences.

**d. Simulation Evaluation.**

- (1) Simulation evaluation scenarios must be administered at regular intervals during the simulation segment of training. The evaluations must be conducted on a pass/fail basis.
- (2) Instructions on documenting and grading the evaluation are contained in Appendix B. The following chart must be used to grade the scenarios:

to the position:

- (a) Terminal area local procedures.
- (b) LOAs, facility directives, orders, notices, aircraft performance characteristics, and position description and responsibilities.
- (c) Position associated equipment.
- (d) Describe procedures for conducting/receiving position relief briefings.
- (2) Separation minimums.
- (3) Heavy jet/wake turbulence separation procedures.
- (4) Control Procedures
- (5) Runway Use
- (6) Helicopter Operations.
- (7) SVFR/VFR ON TOP
- (8) Emergency procedures and unusual situations
- (9) BRITE/DBRITE/TDW.
- (10) Wind effects and wind shear detection equipment
- (11) The individual must describe procedures for conducting/receiving position relief briefings.
- (12) Missed approach procedures and altitudes.
- (13) Special/Military Operations.

c. Additional evaluations may be developed to evaluate the developmental's/CPC-IT's progress, as deemed necessary, to meet facility and/or individual training needs.

**Note:** If the individual does not pass the final graded instructor-led evaluation the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

## 2. Lesson Plans.

**Note:** The following FAA Academy developed lesson plans must be taught via instructor-led training, computer-based instruction (CBI), or self-study, as determined by the TA, based on the needs of the facility and the developmental/CPC-IT. The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

Lesson Plan	TS-5-1 General Control
Lesson Plan	TS-5-2 Local Control Duties and Responsibilities
Lesson Plan	TS-5-3 Airport Lighting



Lesson Plan	TS-5-4 Wake Turbulence
Lesson Plan	TS-5-5 Visual Flight Rules (VFR) Arrival Procedures
Lesson Plan	TS-5-6 VFR Departure Procedures
Lesson Plan	TS-5-7 Instrument Flight Rules (IFR) Arrival and Departure Procedures
Lesson Plan	TS-5-8 Visual Separation, VFR-ON-TOP and Special VFR
Lesson Plan	TS-5-9 Helicopter Aerodynamics and Operations
Lesson Plan	TS-5-10 Special Operations
Lesson Plan	TS-5-11 Emergency Procedures
Lesson Plan	TS-5-12 Bright Radar Tower Equipment (BRITE)
Lesson Plan	TS-5-13 Digital Bright Radar Indicator Tower Equipment (D-BRITE)
Lesson Plan	TS-5-14 Wind Effects
Lesson Plan	TS-5-15 Low Level Wind Shear Alert (LLWAS)
Lesson Plan	TS-5-16 TDWR and LLWAS
Lesson Plan	TS-5-17 Hazardous Weather

### 3. Instructor led Training Evaluation.

a. Locally prepared evaluations must be administered on the following items, as applicable:

- (1) Information contained in the FAA Academy lesson plans.
- (2) Airport Layout/Diagram and Airspace.
- (3) Local equipment and procedures.

b. Additional evaluations may be developed to evaluate the developmental's/CPC-IT's progress, as deemed necessary, to meet facility and/or individual training needs.

**Note:** If the individual does not pass the final graded instructor-led evaluation the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

### 4. Simulation Training.

Simulation training is being administered at terminal facilities using the capabilities of the simulation equipment. This gives the developmental/CPC-IT an opportunity to learn and demonstrate, under simulated conditions, all the knowledge and skills required of a Certified Professional Controller (CPC).

#### a. General.

(1) At facilities where simulation equipment is available, the TA will determine the number of simulation training scenarios that the individual must complete. Periodic evaluation scenarios will be conducted to determine the individual's progress through the completion of the

scenarios.

**Example:** The TA may require the administration of 18 simulation training Local Control scenarios, with numbers 6, 10, 14, and 18 as pass/fail evaluations.

(2) It is necessary to complete scenarios at the lowest complexity level first and to progressively work up to the highest level. Scenarios at a given complexity level may be administered in any order to provide variation. The developmental/CPC-IT will be required to complete training on a given set of instructional scenarios similar to those in the operational position. This requirement will ensure the developmental's/CPC-IT's exposure to the many prescribed special events and control situations that could occur.

(3) Simulation scenarios will be counted as simulation hours. A minimum and maximum number of simulation hours should be established in the local training order.

(4) Up to one hour must be allotted for the instructional scenarios. This does not include the time spent for briefing and critique. The instructor is not precluded from terminating the simulated scenario prior to the time indicated if it has been determined that the maximum instructional benefit of the scenario has been derived.

(5) The results of the individual's performance during each scenario must be recorded on FAA Form 3120-25 and discussed with the individual. (See Appendix B.) Forms used during the evaluation scenario must be retained and filed in the individual's training folder.

#### **b. Instructional Scenario Development.**

(1) Definitions.

(a) Volume level - A factor expressed as a percentage of the traffic worked during a typical busy period.

(b) Complexity - The number of situations that require thought to resolve an issue or conflict.

(2) General Objectives. To achieve standardization of volume level and scenario complexity for all field facilities, the following instructional scenarios development procedures have been established:

(a) Instructional scenarios must be developed for an operational position starting at the 50% volume level and progressively increasing to the 110% volume level. The additional 10% must be added to ensure that the developmental/CPC-IT encounters a greater volume of traffic than he/she will normally be expected to control.

(b) The formula is based on 110% traffic volume from an average period of a busy day (as defined and validated by the facility).

(c) To protect scenario integrity, some variations of the scenario should be made. Changes in aircraft identifications, equipment types, altitudes, and times are usually adequate for developing scenario variations. Selecting random aircraft for special situations will also add depth to scenario variations.

(d) The instructor must determine the weather, flight conditions, VFR traffic, and any abnormal conditions that may affect the overall scenario complexity and controller workload. The instructor must simulate these conditions as closely as possible to add realism to the

scenario.

(e) The instructor must randomly incorporate pilot readback errors throughout the instructional scenarios. These are intentional readback errors made by ghost pilots to the developmental/CPC-IT in order to evaluate the developmental's/CPC-IT's listening skills.

(f) All instructional scenarios must have specific objectives and be directed toward developing the knowledge and ability of those receiving the training. The instructor must ensure that all scenario objectives are met.

(g) The instructor must introduce operations or situations that directly relate to scenario complexity. Normally it is more effective to introduce these complexity factors at a lower volume level to facilitate learning the associated procedure. If normal operational requirements dictate predetermined changes in runway or airspace configurations or changes in services provided at an operational position which affect complexity, separate scenarios should be administered for each change. Each scenario must state objectives, volume level, and complexity factors.

(h) Positive and methodical steps must be taken when developing simulated tower instructional scenario. Complexity, special control events, abnormal traffic situations, weather conditions, script development, and instructor guides need to be considered to achieve the desired scenario objectives.

**Note:** The guidelines listed above have proven to be most effective when developing control instructional scenarios. There may be other methods, such as selecting one hour's traffic from the actual position and administering it as an instructional scenario. There are pitfalls to this type of scenario development, however, because of the wide variation among traffic situations and because real traffic, as experienced from one position, does not always include typical air traffic occurrences.

**c. Simulation Training Scenario Objectives.** Each scenario may contain one or more of the duties listed below. By the completion of this training, the developmental/CPC-IT must have independently performed all applicable duties.

(1) Demonstrate appropriate separation:

- (a) Separation between arrival and departure aircraft.
- (b) Simultaneous operations on parallel runways.
- (c) Intersecting runways.
- (d) Successive departure aircraft.
- (e) Helicopter operations.
- (f) Visual separation.

(2) Land and hold short operations (LAHSO).

(3) Line Up and Wait (LUAW) procedures.

(4) Wake Turbulence Separation.

(5) Canceling approach clearance and subsequent coordination with radar.

(6) Initiate a go-around and subsequent coordination with radar.

- (7) Correctly instruct aircraft where to enter traffic pattern.
- (8) Coordination with Ground Control for Runway crossing/usage.
- (9) Scanning.
- (10) Solicit Pilot Weather Reports (PIREP) when appropriate.
- (11) Estimated Departure Clearance Times (EDCT).
- (12) Apply appropriate radio failure procedures.
- (13) Recognize an aircraft with an inoperative transponder.
- (14) Resolve an emergency situation.
- (15) Recognize weather on a BRITE/TDW display and advise aircraft concerned.
- (16) Provide appropriate position relief briefing.
- (17) Respond appropriately to suspicious activity/MANPADS.
- (18) Apply additional facility-identified procedures.

**d. Simulation Evaluation.**

(1) Simulation evaluation scenarios must be administered at regular intervals during the simulation segment of training. The evaluations must be conducted on a pass/fail basis.

(2) Instructions on documenting and grading the evaluation are contained in Appendix B. The following chart must be used to grade the scenarios:

**Maximum Errors Allowed Per Scenario by Job Task**

<b>Job Task</b>	<b>Local</b>
Separation	0
Coordination	2
Control Judgment	5
Methods and Procedures	5
Equipment, Communication, and Other	5

(3) If the individual does not meet the requirements for successful completion of the scenario, the TA may determine that skill enhancement training is warranted. The skill enhancement training may include:

- (a) Instructor led training.
- (b) CBI lessons.
- (c) Instructional scenarios.

(4) Skill enhancement training must be followed by a re-evaluation scenario at the same level of difficulty (complexity and volume) as that at which the failure occurred.

(5) If the individual does not pass the final graded evaluation scenario, the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

**e. Scenario Development.** The following situations and procedural items must be included in the familiarization and instructional scenarios if applicable to the facility/position. Other items may be added as deemed appropriate by the TA, based on their applicability to the individual position:

- (1) Applying separation rules:
  - (a) Same runway separation.
  - (b) Overtakes.
  - (c) Separation from: adjacent airspace and obstructions.
  - (d) Successive arrivals and departures.
  - (e) Simultaneous arrivals and departures.
  - (f) Wake Turbulence.
  - (g) Visual Separation.
  - (h) Special VFR/VFR ON-TOP separation.
- (2) Communication and coordination:
  - (a) Hearback/readback errors.
  - (b) Transfer of control and communications.
  - (c) Inter- and intra-facility coordination.
  - (d) Coordinate restrictions.
- (3) Clearances and control information.
- (4) Procedures:
  - (a) Local Standard Operation Procedures (SOP).
  - (b) Metering/Flow control.
- (5) Emergencies and Equipment Outages:
  - (a) Loss of communication.
  - (b) In-flight emergencies.
  - (c) Aircraft with minimum fuel.
  - (d) Hijacking Procedures
- (6) Weather:
  - (a) Reporting and disseminating weather information.
  - (b) Runway Visual Range/Runway Visibility Value (RVR/RVV), if applicable.

**f. Scenario Application.** During the simulation stage of training, the developmental/CPC-IT will perform the following in accordance with JO 7110.65:

- (1) Separate aircraft from protected runways/critical areas and other aircraft.
- (2) Issue clearances using correct phraseology.
- (3) Forward control information using correct phraseology.
- (4) Record clearances and control information on strips, using approved symbols and abbreviations.
- (5) Communicate using radio and interphone procedures.
- (6) Use effective board management techniques.
- (7) Demonstrate situational awareness.
- (8) Obtain information from an aircraft in an emergency and notify the proper facilities.
- (9) Obtain and disseminate weather information.
- (10) Demonstrate knowledge of all applicable Letters of Agreement.
- (11) Demonstrate knowledge of the assigned area of specialization.
- (12) Position relief briefings must be received (before) and given (after) each instructional scenario.

**g. Scenario Difficulty.** This section covers the development of scenarios. A developmental/CPC-IT must control varying volumes of traffic and resolve situations of varying complexity. Volume level is the basic criteria for scenario development.

(1) Complexity factor. Scenario complexity is based on the number of situations that require the developmental/CPC-IT to apply the various procedures in JO 7110.65, such as ensuring separation, issuing taxi instructions, ensuring accurate readback of control instructions, and handling emergencies.

(2) Volume level criteria. This element refers to the hourly operations rate. The hourly operations rate is based on 100% traffic volume from an average period of a busy day (as defined and validated by the facility and included in the facility training order).

The TA must determine the number of instructional scenarios the developmental/CPC-IT will complete. Evaluation scenarios must be administered at regular intervals during the simulation segment of training.

(a) Familiarization Scenarios. The developmental/CPC-IT must be given familiarization scenarios. These scenarios should emphasize the importance of effective interaction between the position and other Tower and/or TRACON team members.

**Example:** The first two Familiarization Scenarios should also place additional emphasis on equipment (e.g., button logy, keyboarding).

(b) Instructional Scenarios. Instructional scenarios provide the developmental/CPC-IT with the opportunity to practice performing position duties in a simulated operational environment.

(c) Simulation Evaluation. Evaluation scenarios must be administered at regular

intervals during the instructional scenario segment of training. The evaluations must be pass/fail.

- (i) A preparatory evaluation scenario must be administered prior to the first evaluation scenario.
- (ii) DEVs/CPC-ITs must not be evaluated on any procedures or situations that they have not had experience with in previous scenarios.
- (iii) The instructor must assist, as necessary, to maintain scenario continuity, except during pass/fail evaluation scenarios.

(3) Position relief briefings must be received before and given after each instructional scenario.

(4) Scenario program example. The example in Figure 3-3, Sample Simulation Scenarios shows how a training program may be designed to fulfill the requirements of this Stage.

perform the applicable job subtasks described in Appendix B of this order.

**6. OJT Checklist.** OJT checklists should be used as a mutual training tool for the OJTI and the developmental/CPC-IT. When a checklist is used, the developmental/CPC-IT must be provided with the appropriate stage checklist during the initial training team meeting for that stage. Facilities may develop checklists locally. A sample OJT checklist of Radar Control is provided as an example. Completed OJT Checklist forms must be retained with other required training documentation.

## **Section 7. Stage VI: Non-Radar Training.**

### **(Courses 55064)**

**General:** The purpose of this stage is to prepare the developmental/CPC-IT to perform independently (under general supervision) all duties of Non-Radar (NR) on all sectors within the Terminal Radar Approach Control (TRACON) and to attain certification on those positions if required.

**Exception:** Facilities whose procedures preclude them from providing non-radar control are exempt from non-radar controller training. In those facilities that have sectors where lack of radar coverage or existing procedures require only occasional use of non-radar procedures, the TA must ensure that the developmental/CPC-IT understands the capabilities of the back-up systems.

**Note:** Each radar facility must develop and administer radar-to-non-radar transition scenarios, consistent with operational needs, as contained within local emergency contingency directives. Emphasis will be placed on transition from the primary source of radar information to the backup radar and vice versa. Training must ensure that personnel are able to demonstrate knowledge of the procedures used to transition to the backup radar and that personnel can apply separation standards applicable to that mode. Other items may be added as deemed appropriate by the TA, based on their applicability to the individual position.

This stage of training is administered in three parts: instructor-led training, simulation (if available), and on-the-job training (OJT). When training Certified Professional Controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the Training Administrator (TA) must decide which portions of the instructor-led and simulation training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this stage of training.

**Prerequisite:** Successful completion of Radar Terminal Facility (RTF).

**Note:** TAs may assign individuals to the RC/HO/CI training track simultaneously with the NR training track, based on the facility's needs.

**Location:** Field facility.

**Training Length:** Site specific.

**Administration:** Facilities with limited training resources must utilize FAA Academy student lesson plans and develop self-study materials that will cover all of the required local knowledge and procedures. Contractor-supported training should be developed to facilitate support of training initiatives, as required. Instructor led training is administered using lesson plans



developed by the FAA Academy and the facility and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Airspace layout.
- Local procedures.
- Equipment operations.

After successful completion of instructor-led/simulation training (as appropriate), OJT must be conducted in the operational environment in accordance with Chapter 6 of this order.

**Note:** Facilities may delay NR OJTI until completion of RC instructor-led and simulation training.

**Note:** High-fidelity simulators (e.g., AT Coach, Enhance Target Generator (ETG)) are the preferred method of conducting simulation training, utilizing locally developed scenarios as described in this section on a pass/fail basis. All facilities must conduct simulation training utilizing either high-fidelity simulators prior to starting OJT.

**1. Instructor Led Training.** The individual must successfully demonstrate the skills listed below in accordance with JO 7110.65, JO 7210.3, and local directives, and must pass an examination with a score of 90% or higher (unless otherwise stipulated) on the material. Locally prepared evaluations must be administered, as applicable.

**a. Part I—General.**

- (1) Draw the terminal area map.
- (2) Apply separation standards.
- (3) Apply approach/departure procedures and minimum instrument approach altitudes.
- (4) Issue clearances, advisories, and control information using approved phraseology and proper format.
- (5) Review flight data for accuracy.
- (6) Relay weather reports and Notices to Airmen (NOTAMs).
- (7) Receive and post flight progress reports.
- (8) Analyze traffic situations for potential conflicts.
- (9) Apply inter-facility/intra-facility coordination requirements.
- (10) Provide flight assistance services.

**b. Part II—Site-Specific Equipment and Procedures.**

(1) Position-associated equipment. Use and apply procedures for backup radar or non-radar approach control position equipment.

(2) Procedures.

(a) Explain the application of procedures contained in the following publications as they pertain to the backup radar or non-radar terminal control position:

- (i) FAA orders and/or handbooks.

- (ii) Facility directives and memoranda.
- (iii) Letters of Agreement (LOA).
- (iv) Position binders.
- (v) Aeronautical Information Manual (AIM).

(b) Describe procedures for conducting/receiving briefings before and after position relief.

**c. Part III—Evaluation.**

(1) Terminal control information.

(a) Given an unlabeled chart of local area depicting low-altitude and high-altitude airway structures and Navigation Aid (NAVAID) symbols, and in accordance with local directives, the draw and identify:

- (i) All items required on the flight data area map.
- (ii) Primary and secondary holding fixes.
- (iii) Holding patterns and altitudes.
- (iv) Minimum safe altitudes.

(b) Given unlabeled approach plates, fill in or label the following:

- (i) Transitions.
- (ii) Transition altitudes.
- (iii) Initial altitude at approach fix.
- (iv) Procedure turn—direction from course.
- (v) Final altitude until Final Approach Fix (FAF).
- (vi) Heading—final approach course.
- (vii) Minimum Descent Altitude (MDA), Height Above Touchdown (HAT), Height Above Airport (HAA), and Decision Height (DH).
- (viii) Missed approach.
- (ix) Weather minimums.

**2. Lesson Plans.**

**Note:** The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) must be instructed or whether a review of the lessons is sufficient. This can be determined by administering an exam. If the developmental/CPC-IT passes the exam on one or more of the lessons with a score of 95% or higher (a CLEP style opportunity), he or she may be excused from taking the other lessons.

**Note:** The following FAA Academy developed lesson plans must be taught via instructor-led training, CBI, or self-study, as determined by the TA, based on the needs of

the facility and the developmental/CPC-IT. The TA must determine, based on the needs of the facility and the developmental/CPC-IT, whether the complete lesson(s) will be instructed or a review of the lesson(s) is required. Any review of lesson(s) must include administration of the associated end-of-lesson exam(s). The TA must ensure that training is provided to correct deficiencies identified on the end-of-lesson exam(s).

**a. The Terminal Study Guide (TS-6-1 – TS-6-10) covering:**

- (1) Recording Clearances and Control Information
- (2) Radio and Interphone Communication
- (3) Vertical Separation
- (4) Longitudinal Separation
- (5) Lateral Separation
- (6) General Control and Board Management
- (7) Instrument Flight Rules (IFR) Clearances and Route Assignments
- (8) IFR Flight Direction, Altitude Assignment and Altimeter Setting
- (9) Approaches
- (10) Initial Separation of Departures/Arrivals and Visual Separation
- (11) Holding Aircraft
- (12) Forwarding Control Information
- (13) Air Traffic Services
- (14) Lost Communication Procedures
- (15) Initiating Emergency Procedures
- (16) Visual Flight Rules (VFR) and VFR-On-Top (OTP) Procedures
- (17) Special VFR

**b. Non-radar Instructor led Skills Development Exercises.**

(1) Each facility, as determined by the TA, may develop (in accordance with the local training order) non-radar instructor-led skills development exercises that allow DEVs/CPC-ITs to apply specific skills and knowledge acquired during the academic instruction.

**Example:** Facilities that have sectors whose lack of radar coverage requires extensive use of non-radar control procedures, the TA may require the administration of a number of instructional scenarios. DEVs/CPC-ITs must achieve a successful evaluation on these instructional scenarios at 70% and 100 % of simulation. In those facilities that have sectors where lack of radar coverage or existing procedures require only occasional use of non-radar procedures, the TA must ensure that the developmental/CPC-IT understands the capabilities of the back-up systems.

- (2) The exercises will provide the developmental/CPC-IT with the opportunity to:
  - (a) Record clearances and control information on strips.
  - (b) Use correct radio and interphone message format and communication procedures.
  - (c) Determine the need for separation (plotting and projecting).
  - (d) Issue clearances according to priority.
  - (e) Apply effective board management.

### **3. Instructor Led Training Evaluation.**

- a.** Locally prepared evaluations must be administered on the following items, as applicable:

- (1) Information contained in the FAA Academy lesson plans.
- (2) Airspace layout.
- (3) Local equipment and procedures.

**b.** Additional evaluations may be developed to evaluate the developmental's/CPC-IT's progress, as deemed necessary to meet facility and/or individual training needs.

**Note:** If the individual does not pass the final graded instructor-led evaluation the provisions the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

### **4. Simulation Training.**

Simulation training is being administered at terminal facilities using the capabilities of the simulation equipment. This gives the developmental/CPC-IT an opportunity to learn and demonstrate, under simulated conditions, all the knowledge and skills required of a Certified Professional Controller (CPC).

**Note:** Each radar facility must develop and administer radar-to-non-radar transition scenarios consistent with operational needs, as contained within local emergency contingency directives. Emphasis will be placed on transition from the primary source of radar information to the backup radar and vice versa. Training must ensure that personnel are knowledgeable about the procedures used to transition to the backup radar and that personnel can apply separation standards applicable to that mode. Other items may be added as deemed appropriate by the TA, based on their applicability to the individual position.

#### **a. General.**

(1) At facilities where simulation equipment is available, the TA will determine the number of simulation training scenarios that the individual must complete. Periodic evaluation scenarios will be conducted to determine the individual's progress through the completion of the scenarios.

**Example:** The TA may require the administration of 18 simulation training scenarios,

with numbers 6, 10, 14, and 18 as pass/fail evaluations.

(2) It is necessary to complete scenarios at the lowest complexity level first and to progressively work up to the highest level. Scenarios at a given complexity level may be administered in any order to provide variation. The developmental/CPC-IT will be required to complete training on a given set of instructional scenarios similar to those in the operational position. This requirement will ensure the developmental's/CPC-IT's exposure to the many prescribed special events and control situations that could occur.

(3) Simulation scenarios will be counted as simulation hours. A minimum and maximum number of simulation hours should be established in the local training order.

(4) Up to 1 hour must be allotted for the instructional scenarios. This does not include the time spent for briefing and critique. The instructor is not precluded from terminating the simulated scenario prior to the time indicated if it has been determined that the maximum instructional benefit of the scenario has been derived.

(5) The results of the individual's performance during each scenario must be recorded on FAA Form 3120-25 and discussed with the individual (See Appendix B.) Forms used during the evaluation scenario must be retained and filed in the individual's training folder.

#### **b. Instructional Scenario Development.**

##### **(1) Definitions.**

(a) Volume level - A factor expressed as a percentage of the traffic worked during a typical busy period.

(b) Complexity - The number of situations that require thought to resolve an issue or conflict.

(2) General Objectives. To achieve standardization of volume level and scenario complexity for all field facilities, the following scenario development procedures have been established:

(a) Instructional scenarios must be developed for an operational position starting at the 50% volume level and progressively increasing to the 110% volume level. The additional 10% must be added to ensure that the developmental/CPC-IT encounters a greater volume of traffic than he/she will normally be expected to control.

(b) The formula is based on 110% traffic volume from an average period of a busy day (as defined and validated by the facility).

(c) To protect scenario integrity, some variations of the scenario should be made. Changes in aircraft identifications, equipment types, altitudes, and times are usually adequate for developing scenario variations. Selecting random aircraft for special situations will also add depth to scenario variations.

(d) The instructor must determine the weather, flight conditions, VFR traffic, and any abnormal conditions that may affect the overall scenario complexity and controller workload. The instructor must simulate these conditions as closely as possible to add realism to the scenario.

(e) The instructor must randomly incorporate pilot readback errors throughout the instructional scenarios. These are intentional readback errors made by ghost pilots to the developmental/CPC-IT in order to evaluate the developmental's/CPC-IT's listening skills.

(f) All instructional scenarios must have specific objectives and be directed toward developing the knowledge and ability of those receiving the training. The instructor must ensure that all scenario objectives are met.

(g) The instructor must introduce operations or situations that directly relate to scenario complexity. Normally it is more effective to introduce these complexity factors at a lower volume level to facilitate learning the associated procedure. If normal operational requirements dictate predetermined changes in runway or airspace configurations or changes in services provided at an operational position which affect complexity, separate scenarios should be administered for each change. Each scenario must state objectives, volume level, and complexity factors.

(h) Positive and methodical steps must be taken when developing simulated tower instructional scenario. Complexity, special control events, abnormal traffic situations, weather conditions, script development, and instructor guides need to be considered to achieve the desired scenario objectives.

**Note:** The guidelines listed above have proven to be most effective when developing instructional scenarios. There may be other methods, such as selecting an hour's worth of traffic from the actual position and administering it as a instructional scenario. There are pitfalls to this type of scenario development, however, because of the wide variation among traffic situations and because real traffic, as experienced from one position, does not always include typical air traffic occurrences.

**c. Simulation Training Scenario Objectives.** Each problem may contain one or more of the duties listed below. By the completion of this training, the developmental/CPC-IT must have independently performed all applicable duties.

(1) Applying separation rules.

(a) Crossing, converging, and opposite direction traffic.

(b) Overtakes.

(c) Separation from, adjacent airspace, obstructions, and special use airspace.

(d) Successive arrivals and departures.

(e) Simultaneous arrivals and departures.

(f) Arrivals with altitudes inverted.

(g) Release aircraft into the airspace.

(2) Communication and coordination.

(a) Hearback/readback errors.

(b) Transfer of control and communications.

(c) Communication with aircraft through other than direct pilot-controller communication.

- (d) Inter- and intra-facility coordination.
- (e) Coordination restrictions.
- (f) Verification information.
- (3) Clearances and control information.
  - (a) IFR clearances.
  - (b) Clearance to alternate airport.
  - (c) VFR-on-top.
  - (d) VFR traffic encountering IFR.
  - (e) Route change in flight.
  - (f) Arrivals and departures.
  - (g) Approaches, including high-altitude IFR approaches, Contact Approaches.
  - (h) Holding.
    - (i) Transfer of control and communications.
    - (j) Airfiles and pop ups.
    - (k) Pilot deviations.
    - (l) Requests for altitude change.
    - (m) Radar Team concepts and communications.
- (4) Procedures.
  - (a) Interphone procedures.
  - (b) Traffic Management Initiatives.
  - (c) Fuel dumping.
  - (d) Special Flight Operations.
  - (e) Military procedures.
- (5) Emergencies and Equipment Outages.
  - (a) Loss of communication.
  - (b) In-flight emergencies.
  - (c) Aircraft with minimum fuel.
  - (d) National Airspace System control equipment failures.
  - (e) In-flight equipment malfunctions.
  - (f) Overdue aircraft.
  - (g) Hijack Procedures.
  - (h) Special Operations.
- (6) Weather.

- (a) Reporting and disseminating weather information.
- (b) Changes to routes due to weather.
- (c) Pilot Weather Reports (PIREPs).

Special situations should not be limited to those shown but should also include situations initiated by facility instructors except during an Evaluation Scenario.

**d. Simulation Evaluation.**

(1) Simulation evaluation scenarios must be administered at regular intervals during the simulation segment of training. The evaluations must be conducted on a pass/fail basis.

(2) Instructions on documenting and grading the evaluation are contained in Appendix B. The following chart must be used to grade the scenarios:

**Maximum Errors Allowed Per Scenario by Job Task**

<b>Job Task</b>	<b>NR-HO-CI</b>
Separation	0
Coordination	2
Control Judgment	5
Methods and Procedures	5
Equipment, Communication, and Other	5

(3) If the individual does not meet the requirements for successful completion of the scenario, the TA may determine that skill enhancement training is warranted. The skill enhancement training may include:

- (a) Instructor led training.
- (b) CBI lessons.
- (c) Instructional scenarios.

(4) Skill enhancement training must be followed by a re-evaluation scenario at the same level of difficulty (complexity and volume) as that at which the failure occurred.

(5) If the individual does not pass the final graded evaluation scenario, the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

**e. Scenario Development.** The following situations and procedural items must be included in the familiarization and instructional scenarios if applicable to the facility/position. The scenarios must include traffic situations that involve:

- (1) Arrivals versus arrivals.
- (2) Departures versus departures.
- (3) Arrivals versus departures.



- (4) Arrivals versus adjacent airspace and over-flights.
- (5) Arcs versus holding pattern airspace.
- (6) Loss of communication.
- (7) Emergency procedures.
- (8) Special Visual Flight Rules (SVFR) procedures.

**f. Scenario Application.** During the simulation stage of training, the developmental/CPC-IT must perform the following in accordance with JO 7110.65:

- (1) Separate aircraft from other aircraft.
- (2) Issue clearances using correct phraseology.
- (3) Forward control information using correct phraseology.
- (4) Record clearances and control information on strips or pad, using approved symbols and abbreviations.
- (5) Communicate using radio and interphone procedures.
- (6) Use effective board/pad management techniques.
- (7) Demonstrate situational awareness.
- (8) Obtain information from an aircraft in an emergency and notify the proper facilities.
- (9) Obtain and disseminate weather information.
- (10) Demonstrate knowledge of all applicable Letters of Agreement.
- (11) Demonstrate knowledge of the Non-radar/RA position.
- (12) Receive and give position relief briefings on each instructional scenario.

**g. Scenario Difficulty.** This section covers the development of scenarios. A developmental/CPC-IT must control varying volumes of traffic and resolve situations of varying complexity. Volume level is the basic criteria for scenario development.

(1) Complexity factor. Scenario complexity is based on the number of situations that require the developmental/CPC-IT to apply the various procedures in JO 7110.65, such as ensuring separation, issuing taxi instructions, ensuring accurate readback of control instructions, and handling emergencies.

(2) Volume level criteria. This element refers to the hourly operations rate. The hourly operations rate is based on 100% traffic volume from an average period of a busy day (as defined and validated by the facility and included in the facility training order).

The TA must determine the number of instructional scenarios the developmental/CPC-IT will complete. Evaluation scenarios must be administered at regular intervals during the simulation segment of training.

(a) Familiarization Scenarios. The developmental/CPC-IT must be given familiarization scenarios. These scenarios should emphasize the importance of effective interaction between the position and other Tower and/or TRACON team members.

**Example:** The first two Familiarization Scenarios should also place additional emphasis on equipment (e.g., button logy, keyboarding).

(b) Instructional Scenarios. Instructional scenarios provide the developmental/CPC-IT with the opportunity to practice performing position duties in a simulated operational environment.

(c) Simulation Evaluation. Evaluation scenarios must be administered at regular intervals during the instructional scenario segment of training. The evaluations must be pass/fail.

(i) A preparatory evaluation scenario must be administered prior to the first evaluation scenario.

(ii) DEV's/CPC-ITs must not be evaluated on any procedures or situations that they have not had experience with in previous scenarios.

(iii) The instructor must assist, as necessary, to maintain scenario continuity, except during pass/fail evaluation scenarios.

(3) Position relief briefings must be received before and given after each instructional scenario.

(4) Scenario program example. The example in Figure F-4, Sample Simulation Scenarios, shows how a training program may be designed to fulfill the requirements of this Stage.

**Figure F-0-1. Sample Simulation Scenarios**

<b>Scenario</b>	<b>Volume (%)</b>	<b>Type</b>
A	70	Familiarization
B	70	Familiarization
C	75	Familiarization
D	75	Familiarization
E	75	Familiarization
1	80	Instructional
2	80	Instructional
3	80	Evaluation-Preparatory
4	80	Instructional
5	80	Evaluation (Pass/Fail)
6	85	Instructional
7	85	Instructional
8	90	Instructional
9	90	Instructional
10	90	Evaluation (Pass/Fail)
11	95	Instructional
12	95	Instructional
13	95	Instructional
14	100	Instructional
15	100	Evaluation (Pass/Fail)

**h. Additional Scenarios.**

(1) Following successful completion of the evaluations and prior to the start of OJT, additional control scenarios may be administered on each sector in the developmental's/CPC-IT's area of specialization. These scenarios are intended to introduce the developmental/CPC-IT to sector-specific operations and traffic flows.

(2) The instructional scenarios will provide a highly interactive instructional environment in which the instructor and the developmental/CPC-IT will be able to discuss strategies and alternatives.

(3) The number of scenarios will be determined by the TA based on the needs of the facility.

(4) Instructional scenarios may use combined sector and position configurations.

<b>Non-Radar (NR) Simulation Checklist</b>			
<b>Developmental / CPC-IT</b>			<b>Facility</b>
As each item on the checklist is completed, the instructor must record the date and the developmental/CPC-IT must initial using operating initials.			
<b>Indicate with a N/A in the date column for items on the checklist that do not apply.</b>			
<b>I. Apply Separation</b>			<b>Initials</b>
			<b>Date</b>
a.	Departures (IFR successive)		
b.	Arrivals (IFR successive)		
c.	Tower en route aircraft (airways and radials)		
d.	Separation by pilots		
e.	Emergency or radio failure		
f.	Report leaving, report reaching		
g.	Required coordination.		
<b>II. Situational Awareness</b>			
a.	High-altitude instrument approach		
b.	Sector radio equipment failure		
c.	Visual separation		
d.	Special VFR		
e.	Composite flight plans		
f.	Airfiles		
g.	VFR OTP flights		
h.	Inter-facility coordination		
i.	Intra-facility coordination		
j.	Strip marking (SOP)		
k.	Pilot Requesting Altitude Change en route		
l.	Revisions: <ol style="list-style-type: none"> <li>1. From adjacent positions.</li> <li>2. Pilot revises estimates.</li> <li>3. Pilot requests route change.</li> </ol>		
m.	Direct Route Flights		
n.	Significant Meteorological Information (SIGMET).		
o.	Notice to Airmen (NOTAM).		
p.	Non-Receipt of position reports (not a radio failure).		
q.	Weather Below Minimums (requiring change in destination).		

r.	Weather below minimums (requiring missed approach and holding for change in weather).		
s.	Knowledge of backup radar systems		
t.	NAVAID Failure		
<b>III. Position Information</b>			
a.	Demonstrate strip board management		
b.	Give and receive position relief briefing		
I certify that all items in this checklist have been completed and/or discussed. <b>NOTE: Please return to TA when complete.</b>			
Developmental/ CPC-IT			
Print Name	Signature	Date	
Instructor	Signature	Date	
FAA Manager	Signature	Date	

**5. OJT.** Through OJT, the developmental/CPC-IT must demonstrate the ability to satisfactorily perform the applicable job subtasks described in Appendix B of this order.

**6. OJT Checklist.** OJT checklists should be used as a mutual training tool for the OJTI and the developmental/CPC-IT. When a checklist is used, the developmental/CPC-IT must be provided with the appropriate stage checklist during the initial training team meeting for that stage. Facilities may develop checklists locally. A sample OJT checklist of Radar Control is provided as an example. Completed OJT Checklist forms must be retained with other required training documentation.

**Section 8. Stage VII: Radar/Handoff/Coordinator Controller Training.****(Courses 55065)**

**General:** The purpose of this stage is to prepare the developmental/CPC-IT to perform independently (under general supervision) all duties of the Radar/Handoff/Coordinator Controller (RC/HO/CI) within the Terminal Radar Approach Control (TRACON) and to attain certification on those positions.

This stage of training is administered in three parts: instructor-led training, simulation (if available), and on-the-job training (OJT). When training Certified Professional Controllers (CPC) who have lost operational currency or have transferred from another facility or area of specialization, the Training Administrator (TA) must decide which portions of the instructor-led and simulated training will be administered based on the needs of the specialist. Pass/fail criteria must apply in this Stage of training.

**Prerequisite:** Successful completion of Radar Terminal Facility (RTF).

**Location:** Field facility.

**Training Length:** Site specific.

**Administration:** Facilities with limited training resources must utilize FAA Academy student lesson plans and develop self-study materials that will cover all of the required local knowledge and procedures. Contractor-supported training should be developed to facilitate support of training initiatives, as required. Instructor led training is administered using lesson plans developed by the FAA Academy and the facility, and conducted under the direction of the TA. Facility lesson plans must be developed for:

- Airspace layout.
- Local procedures.
- Equipment operations.

After successful completion of instructor-led/simulation training (as appropriate), OJT must be conducted in the operational environment in accordance with Chapter 6 of this order.

**Note:** TAs may assign individuals to the RC/HO/CI training track simultaneously with the NR controller training track, based on the facility's needs.

**Note:** High-fidelity simulators (e.g., AT Coach, Electronic Target Generator (ETG)) are the preferred method of conducting simulation training, utilizing locally developed scenarios as described in this section on a pass/fail basis. All facilities must conduct simulation training utilizing either high-fidelity simulators prior to starting OJT.

**1. Instructor Led Training.** The individual must successfully demonstrate the skills listed below in accordance with JO 7110.65, JO 7210.3, and local directives, and must pass all examinations in this phase of instructor led training with an average score of 90% or higher (unless otherwise stipulated) on the material. Locally prepared evaluations must be administered, as applicable.

**Note:** The TA must determine, based on the needs of the facility and the

- (3) The individual must pass the facility-developed automation examination.
- (4) Given an unlabeled video map/overlay, the individual must identify all items, plus:
  - (a) Minimum vector altitudes.
  - (b) Significant terrain areas and obstructions.
  - (c) Primary radio frequencies for radar positions and adjacent control facilities.
  - (d) Other items as determined by the facility.
- (5) If the individual does not meet the requirements for successful completion of the examinations, the TA may determine that additional training is warranted.
  - (a) This training may include:
    - (i) Additional instructor-led training and/or
    - (ii) CBI training.

**Note:** If the individual does not pass the final graded instructor-led evaluation, the provisions of the most recent Human Resources Policy Manual must be followed.

**Note:** A training review board is not required for instructor-led or simulation training failure.

**2. Simulation Training.** Simulation training is being administered at terminal facilities using the capabilities of the simulation equipment. This gives the developmental/CPC-IT an opportunity to learn and demonstrate, under simulated conditions, all the knowledge and skills required of a Certified Professional Controller (CPC).

**a. General.**

(1) At facilities where simulation equipment is available, the TA will determine the number of simulation training scenarios that the individual must complete. Periodic evaluation scenarios will be conducted to determine the individual's progress through the completion of the scenarios.

**Example:** The TA may require the administration of eighteen simulation training scenarios, with numbers 6, 10, 14, and 18 as pass/fail evaluations.

(2) It is necessary to complete scenarios at the lowest complexity level first and to progressively work up to the highest level. Scenarios at a given complexity level may be administered in any order to provide variation. The developmental/CPC-IT will be required to complete training on a given set of instructional scenarios similar to those in the operational position. This requirement will ensure the developmental's/CPC-IT's exposure to the many prescribed special events and control situations that could occur.

(3) Simulation scenarios will be counted as simulation hours. A minimum and maximum number of simulation hours should be established in the local training order.

(4) Up to 1 hour must be allotted for the instructional scenarios. This does not include the time spent for briefing and critique. The instructor is not precluded from terminating the simulated scenario prior to the time indicated if it has been determined that the maximum instructional benefit of the scenario has been derived.

**Figure F-2. Sample Simulation Scenarios**

<b>Scenario</b>	<b>Volume (%)</b>	<b>Type</b>
A	70	Familiarization
B	70	Familiarization
C	75	Familiarization
D	75	Familiarization
E	75	Familiarization
1	80	Instructional
2	80	Instructional
3	80	Evaluation-Preparatory
4	80	Instructional
5	80	Evaluation (Pass/Fail)
6	85	Instructional
7	85	Instructional
8	90	Instructional
9	90	Instructional
10	90	Evaluation (Pass/Fail)
11	95	Instructional
12	95	Instructional
13	95	Instructional
14	100	Instructional
15	100	Evaluation (Pass/Fail)

**h. Additional Scenarios.**

(1) Following successful completion of the evaluations and prior to the start of OJT, additional instructional scenarios may be administered on each sector in the developmental's/CPC-IT's area of specialization. These scenarios are intended to introduce the developmental/CPC-IT to sector-specific operations and traffic flows.

(2) The scenarios will provide a highly interactive instructional environment in which the instructor and the developmental/CPC-IT will be able to discuss strategies and alternatives.

(3) The number of scenarios will be determined by the TA based on the needs of the facility.

(4) Instructional scenarios may use combined sector and position configurations.



<b>Radar/Handoff/Cordinator Control (RC/HO/CI) Simulation Checklist</b>			
<b>Developmental / CPC-IT</b>		<b>Facility</b>	
As each item on the checklist is completed, the instructor must record the date, and the developmental/CPC-IT must initial the checklist, using operating initials.			
<b>Indicate with a "N/A" in the date column for items on the checklist that do not apply.</b>			
<b>I. Apply LOA/SOP/7110.65</b>		<b>Initials</b>	<b>Date</b>
A.	Radar procedures listed in LOA, SOP, and FAA O 7110.65		
<b>II. Demonstrate Understanding of Identification Methods</b>			
A.	<b>Primary Radar Identification</b>		
1.	Observing a departing aircraft target within 1 mile of the takeoff runway end at airports with an operating control tower, provided that one of the following methods of coordination is accomplished:		
	a. A verbal rolling/boundary notification is issued for each departure.		
	b. A nonverbal rolling/boundary notification is used for each departure aircraft.		
2.	Observing a target with respect to a fix.		
B.	<b>Model 3/A (Beacon)</b>		
1.	"Ident"		
2.	Change to specific discrete code.		
3.	Squawk "stand-by" and squawk "normal" modes.		
C.	<b>Terminal Automation Systems Identification Methods:</b> Standard Terminal Automation Replacement System (STARS), Common ARTS (CARTS), and En Route Automated Radar Tracking System (EARTS).		
1.	Auto-acquired aircraft.		
D.	<b>Questionable Identification</b>		
1.	Multiple targets.		
2.	Wrong transponder code.		
3.	Loss of transponder requiring initial transition to non-radar separation/routing.		
E.	<b>Position Information</b>		
1.	Notification requirements after initial identification		
F.	<b>Identification Status</b>		
1.	Radar contract and radar contact lost.		
G.	<b>Radar Data Blocks</b>		
1.	Retain data blocks as appropriate.		
2.	Prearranged coordination impacts.		
H.	<b>Radar Termination</b>		
1.	Aircraft on approach to a non-Tower-controlled airport or after Tower closes.		
2.	Aircraft cancels Instrument Flight Rules (IFR).		

<b>III. Transfer Radar Identification</b>			
1.	Application.		
2.	Terms.		
3.	Methods (demonstrates appropriate phraseology).		
4.	Traffic.		
5.	Transferring Controller Handoff. a. Items to ensure prior to transferring communication. b. Verbal coordination. c. Necessary coordination.		
6.	Receiving Controller Handoff. a. Correlation of target with position. b. Restrictions. c. Control. d. Coordination. e. Initiation of an automated inter-facility handoff action and "NAT" or "IF" is displayed in the full data block.		
7.	Point-Out a. Automated point out function. b. Verbal (demonstrates appropriate phraseology).		
8.	Automated Information Transfer (AIT)		
<b>IV. Ensure Radar Separation</b>			
1.	Application.		
2.	Airspace within which radar separation. a. When less than 40 miles. b. When 40 miles or more. c. Narrowband radar operations. d. For single sensor ASR-9/11 with Mode S. e. STARS Multi-Sensor Mode. f. Micro-En Route Automated Radar Tracking System (MEARTS) Mosaic Mode. g. Wake turbulence.		
3.	Target separation.		
4.	Mimima. a. Broadband Radar System or Digital Terminal Automation System (DTAS) (includes single sensor). b. Stage A/Direct Access Radar Channel (DARC), MEARTS Mosaic Mode, Terminal Mosaic/Multi-Sensor Mode. c. Transitioning from Terminal to En Route control. d. STARS Single Sensor Mode/Multi-Sensor Mode. e. Wake Turbulence Application: (i) Aircraft operating directly behind and less than 1,000 feet below, or following an aircraft conducting an instrument approach.		
5.	Vertical Application a. Valid Mode C. b. Reports leaving or is observed (valid Mode C). c. Exceptions.		
6.	Passing or diverging.		
7.	Formation flights.		
8.	Separation from obstructions.		

9.	Adjacent Airspace/Edge of Scope/Beacon Target Displacement.		
<b>V. Ensure Vector Requirements</b>			
1.	Separation of Aircraft a. Departure/Arrival-non-Tower control airports. b. Aircraft crossing courses. c. Sequence of two or more arriving aircraft, or En Route aircraft, on the same route/direction. d. Aircraft descending/climbing through altitude of another on the same route/same direction. e. Aircraft descending/climbing through altitude of another aircraft on same route in opposite direction. f. Separation of at least two aircraft at same altitude on parallel courses. g. Radar-identified aircraft from known non-radar aircraft. h. Primary targets from primary targets. i. Beacon targets from beacon targets. j. Beacon targets from primary targets. k. Break up formation flights.		
2.	No-gyro vectors.		
3.	Movement of aircraft into Military Operations Area (MOA)/Air Traffic Control Assigned Airspace (ATCAA) and recovery from MOA/ATCAA.		
<b>VII. Implement Special Handling</b>			
A.	Priority Aircraft		
1.	Lifeguard.		
2.	Presidential.		
3.	Semiautomatic Flight Inspection Aircraft (SAFI).		
4.	Air Evacuation.		
B.	Emergency		
1.	Icing.		
2.	Lost engine.		
3.	Lost aircraft.		
4.	Overdue aircraft.		
5.	In-flight equipment malfunction/emergency (loss of engine, fire, loss of oil pressure, windscreen broken, etc.)		
C.	Hijacking/Bomb Threats		
D.	Aircraft with Minimum Fuel		
E.	Loss of Navigational Equipments		
F.	Chaff Drop		
G.	Electronic Countermeasures (ECM) Activity		
<b>VIII. Handle Traffic Situations</b>			
A.	Failure of aircraft to comply with route clearance.		
B.	Failure of aircraft to comply with altitude clearance.		
C.	Simultaneous arrivals where first aircraft is at highest altitude and last aircraft is at lowest altitude.		
D.	Multiple arrivals sequenced with slowest aircraft first and succeeding aircraft faster. Unusual coordination altitudes/speed		

	control/sequence required.		
E.	Fast departure following a slower aircraft on the same route.		
F.	Aircraft deviating around weather.		
G.	Tracking aircraft under law enforcement surveillance.		
H.	Fuel dumping.		
I.	Two or more aircraft in-trail; and use of speed adjustment to maintain separation.		
J.	Traffic Alert and Collision Avoidance System (TCAS) Resolution Advisories (TA and RA modes).		
K.	VFR-On-Top (OTP) handling and separation.		
<b>IX. Execute Appropriate Communication/Coordination</b>			
A.	Aircraft unable to communicate on a TRACON frequency.		
B.	Marginal altitude/area for communications.		
C.	No Radio (NORDO) aircraft.		
D.	NAS system outage, e.g., En Route Backup Surveillance System (EBUS)/DARC.		
E.	Aircraft loss of communication and attempt to reestablish communication, using alternate methods, e.g., other aircraft, previous frequency, transmitter change, Flight Service Station (FSS), use of 243.0, and Aeronautical Radio, Inc. (ARINC), etc		
F.	Request from aircraft on frequency to change altitude or route prior to entering your sector.		
G.	Point-out.		
H.	Coordination with neighboring facility on non-LOA request.		
I.	Coordination with appropriate adjacent sector prior to authorizing aircraft to change altitude.		
J.	Manual hand-offs.		
K.	Automated hand-offs.		
L.	Transfer of control/communications requirements.		
M.	Loss of Mode C readout.		
N.	Request from aircraft on frequency to change altitude or route after entering your sector		
	I certify that all items in this checklist have been completed and/or discussed. <b>NOTE: Please return to TA when complete.</b>		

	<b>Name (Please Print)</b>	<b>Signature</b>	<b>Date</b>
<b>DEV/CPC-in-training</b>			
<b>Instructor</b>			
<b>Frontline Manager</b>			

**3. OJT.** Through OJT, the developmental/CPC-IT must demonstrate the ability to satisfactorily perform the applicable job subtasks described in Appendix B of this order.

**4. OJT Checklist.** OJT checklists should be used as a mutual training tool for the OJTI and the developmental/CPC-IT. When a checklist is used, the developmental/CPC-IT must be provided with the appropriate stage checklist during the initial training team meeting for that stage. Facilities may develop checklists locally. A sample OJT checklist of Radar Control is provided as an example. Completed OJT Checklist forms must be retained with other required training documentation.

## Course 55065 OJT CHECKLIST

<b>Radar /Handoff/Coordinator Control (RC/HO/CI) OJTI Checklist</b>			
NOTE: The trainee must be able to demonstrate knowledge of the following. Indicate with an "N/A" in the date column items on the checklist that do not pertain			
Name:	<b>OJTI</b>	<b>DEV</b>	<b>DATE</b>
<b>1 Review and demonstrate backup Radar modes and methods.</b>			
a. STARS FSL to ESL selection.			
b. Radar sight selection including GATEWAY.			
c. Center Radar Arts Presentation/Processing CENRAP (not available with En Route Automation Modernization (ERAM)).			
<b>2 Review and demonstrate the following methods/applications:</b>			
a. Traffic alerts and Minimum Safe Altitude Warning (MSAW) priorities.			
b. Primary radar identification methods.			
c. Target marker requirements and pre-arranged coordination agreements.			
d. Reposition systems area/lists/preview area.			
e. Reposition map locations (e.g., de-center).			
f. Providing vertical separation during opposing base-leg turns to final.			
g. Visual approach clearance following the preceding arriving aircraft.			
h. Appropriate application of passing and diverging.			
i. Use of visual separation between two or more departing and/or en route aircraft.			
j. Pressurization issues on high-climbing departures (e.g., remain below 10K).			
k. Termination of radar service.			
l. Wake turbulence spacing and advisory requirements.			
m. Merging target procedures.			
n. Weather and chaff services and filters, e.g., Linear/Circular Polarization (LP/CP).			
o. Dependant and independent parallel approach procedures.			
p. Final approach course intercept requirements (e.g., 20-30 degrees).			
q. Initiating and/or accepting an automated handoff.			
r. Handling missed approach/go-around.			
s. Initiating and/or accepting an automated Point Out.			
t. Transfer of communications points, e.g., for Air Traffic Control Tower (ATCT), the Final Approach Fix.			
u. Initiating and/or accepting a non-radar block.			
v. Special military operations (site specific).			
w. Aerial photography operations.			

x	Compliance with Traffic Management Initiatives, e.g., Miles in Trail (MIT), Traffic Management Advisor (TMA).			
y	VFR-On-Top separation and procedures.			
3	<b>Demonstrate understanding of EBUS operational impact on Terminal operations.</b>			
I certify that all items in this checklist have been completed and/or discussed. <b>NOTE: Please return to TA when complete.</b>				
	<b>Print Name</b>	<b>Signature</b>		<b>Date</b>
<b>Developmental/ CPC-IT</b>				
<b>OJTI</b>				
<b>Frontline Manager</b>				

## **Appendix G. Traffic Management Instructional Program Guide**

### **Section 1. Introduction.**

This instructional program guide (IPG) includes information about the following two development stages:

- (1) FAA Academy Training (Course 50115)
- (2) Facility Traffic Management Coordinator Training (Course 55116 - Parts A and B)

### **Section 2. Stage I: FAA Academy Training.**

#### **Traffic Management Training**

##### **(Course 50115)**

**General:** The purpose of this stage is to train Certified Professional Air Traffic Control Specialists selected for Traffic Management Coordinator (TMC) positions, as well as supervisors and other personnel required to perform traffic management duties. This stage of training is administered in two parts: instructor-led training and instructor-led/simulated environment.

Course 50115 is not mandatory for anyone certified as a TMC. It is strongly recommended that any person training to become a TMC/TMS receive this training within the first 18 months of accepting a Traffic Flow Management position. Certified TMC/TMS who have not attended this course are also strongly recommended to attend. Certified Professional Air Traffic Control Specialist from the Terminal or En Route option, non-traffic management supervisors, managers, staff specialists, and other personnel who need to have a general knowledge of the Traffic Management system may attend Course 50115, but newly hired TMC/TMS will have priority enrolling in the class.

**Location:** FAA Academy

**Training Length:** 64 hours

**Administration:** Training is administered in a instructor-led/simulated environment utilizing FAA Academy prepared instructional materials and computers for hands-on practice. Academic progress is assessed with an end-of-course exam on a pass/fail basis.

#### **Training Contents:**

- Traffic management System history and future
- Systems Thinking
- Communication and Conflict Management
- Traffic Flow Management
- Severe Weather Management
- Airport/Airspace Capacity and Delay Reporting
- Contingency Plans



- Weather Coordinator
- Mission Coordinator
- Traffic management Workstation
- Mozilla
- ETMS Reports
- Traffic Situation Display Menu Functions
- Flight Schedule Monitor
- Traffic Flow Management System (TFMS) System Email
- Traffic Flow Management System (TFMS) System Shell
- National traffic management Log
- Enhanced traffic management System Manager

### **Section 3. Stage II: Facility Traffic Management.**

#### **Qualification and Certification**

##### **(Course 55116)**

**General:** The purpose of this stage is to provide the TMC-in-training (TMC-IT) with local facility orientation and site specific training. Course 55116 is broken into two parts: Part A supplements and reinforces Course 50115 training and prepares the TMC-IT for on-the-job training (OJT). Part B is to qualify the TMC-IT to perform the full range of duties and attain certification on all traffic management positions of operation within the facility.

Portions of this course may be used for TMCs who have lost their currency or for TMCs who have transferred from another facility. Facilities must decide which portions of Part A will be administered based on the needs of the specialist/facility.

##### **55116 PART A**

**Location:** Field Facility

**Training Length:** Site specific

**Administration:** Training is conducted in a instructor-led/simulated environment using an Academy developed outline and facility developed lesson plans, visual aids, and other media designed to support and pace all instruction. Facilities are encouraged to develop and conduct scenarios for use in the instructor-led/simulated environment. Scenarios should depict traffic management problems that have been experienced by the facility or are likely to occur.

**Note:** The Traffic Management Training Section of the FAA Academy, if requested and tasked, will assist and/or advise facilities with curriculum development.

**Training Content:** Course 55116 Part A may contain any of the following topics. The facility is responsible for determining which topics are applicable. Facilities may add topics as necessary. All applicable procedures and directives in use at a facility must be covered in the course

. Facilities are encouraged to develop and conduct scenarios for use in the instructor-led/simulated environment. Scenarios should depict traffic management problems that have been experienced by the facility or are likely to occur.

- Introduction to facility and course
- Traffic management overview
- Airspace review and traffic flows
- Traffic management workstation (TMW)
- Severe weather management
- Routes
- Traffic management initiatives (TMI)
- Tower en route control
- Weather coordinator
- Mission coordinator
- Contingency plans
- Administrative and other duties

## **55116 PART B**

**Prerequisite:** Completion of Course 55116 Part A

**Location:** Field Facility

**Training Length:** Determine on-the-job training (OJT) hours for each operational position as described in JO 3120.4.

**Note:** In order to insure maximum use of personnel resources, OJT at air route traffic control centers (ARTCC) and terminals should be completed within 10 weeks. At the Air Traffic Control Systems Command Center (ATCSCC), OJT should be completed within 18 weeks.

**Administration:** OJT is conducted in accordance with JO 3120.4.

Part B of Course 55116 is administered on a pass/fail basis. The TMC-IT must pass a certification evaluation for each traffic management position of operation in the facility.

**1. Part B. Lesson Objective:** The TMC-IT will be able to perform all required traffic management duties and responsibilities under general supervision.

**a. Job Functions:** Through OJT, the TMC-IT will be able to: (Because of fundamental differences in operation among traffic management units, the following job functions may not apply to all facilities.)

- (1) Use the TMW.

## Appendix H. Terminal and En Route Facility Controller-in-Charge Instructional Program Guide

### Section 1. Introduction.

This instructional program guide (IPG) includes information about the following two development stages:

- Computer-Based Instruction (CBI)                      Course 57057, En Route  
   Course 57060, Terminal
- Controller-in-Charge (CIC) Training                      Course 55072, En Route  
   Course 55073, Terminal

### Section 2. Stage I: FAA Academy Training.

#### Controller-in-Charge CBI

(Course 57057, En Route)

(Course 57060, Terminal)

**General:** The purpose of this training is to provide the developmental/CPC-IT selected to be controllers-in-charge (CIC) in either the En Route or Terminal environment with a mandatory national computer-based instruction (CBI) course.

**Prerequisite:** Developmentals/CPC-IT s from the En Route or Terminal options that have been selected by the CIC selection official.

**Location:** Field facility

**Training Length:** This training is self-paced; therefore, the time to complete is based on an average. The lessons should be able to be completed within 3 to 5 hours.

**Administration:** This training is conducted in a CBI environment using FAA Academy developed lessons tailored to facility requirements.

**Training Contents:** Course 57057 contains these areas of instruction:

- Introduction to course layout and course content
- Position Overview: Overview of the general responsibilities of the CIC
- Supervising Personnel: Responsibilities for position assignments, position relief briefings, approving leave, training, safety, and drug exams
- Operations Management: Procedures and responsibilities associated with data logs, Notices to Airmen, equipment outages, and flight inspection of navigational aids
- Incidents: Responsibilities associated with near-midair collisions (NMAC), pilot deviations, and reported occurrences
- Critical Air Situations: Procedures and responsibilities associated with aircraft accidents, hijacked aircraft, bomb threats, flight assists, emergency locator transmitter signals and unusual and unusual aircraft activities.
- Special Operations: Responsibilities for handling presidential aircraft and other

special air operations

Course 57060 contains the same areas of instruction as Course 57057 plus the following:

- (Terminal Only) Reporting Exercises: Practice completing reports associated with flight assists, pilot deviations, aircraft accidents, reported occurrences and NMACs
- (Terminal Only) Public Relations: Procedures for handling public inquiries
- (Terminal Only) Facility Emergencies and Security: Procedures and responsibilities associated with emergencies and security of the facility

### **Section 3. Stage II: Facility Controller-in-Charge Qualification and Certification.**

**(Course 55072, En Route Part A)**

**(Course 55073, Terminal Part A)**

**General:** Course 55072, Facility Controller-In-Charge (En Route Part A), is designed for certified professional controllers (CPC) and traffic management coordinators (TMC) selected to be CICs in an En Route environment. It provides job related knowledge, skill-oriented training, and site-specific instructor-led training. Instruction provided will prepare the developmental CIC to enter on the job training (OJT) for part B.

Course 55073, Facility Controller-In-Charge (Terminal Part A), is designed for CPCs and TMCs selected to be CICs in a terminal environment. It provides job related knowledge, skill-oriented training, and site-specific instructor-led training. Instruction provided will prepare the developmental CIC to enter OJT for part B.

**Prerequisite:** Successful completion of Course 57057, En Route CBI

or

Course 57060, Terminal CBI

**Location:** Field facility determined

**Training Length:** Up to 12 hours for Course 55072 or up to 12 hours for Course 55073

**Administration:** Training is administered in a instructor-led/operational environment utilizing FAA Academy developed instructional materials tailored to facility requirements and enhanced with site-specific items. Facilities may add additional lessons and/or items. Facilities are encouraged to develop and conduct scenarios depicting situational awareness problems based on actual situations experienced by the facility or those that are likely to occur.

**Training Contents:** Course 55072 and 55073 contains these areas of instruction.

- Watch supervision requirements
- Operations management
- Resource management
- Unusual situations
- Accidents/Incidents
- Human relations and communications

- Leave administration
- Medical/drug/alcohol regulations
- Reported occurrences
- Training procedures
- Work environment and human relations

## **Section 4. Stage III: Facility Controller-in-Charge**

### **Qualification and Certification**

**(Course 55072 En Route Part B)**

**(Course 55073 Terminal Part B)**

**General:** Course 55072, Facility Controller-In-Charge (En Route Part B), is designed for CPCs and TMCs selected to be CICs in an En Route environment. Site specific OJT is provided enabling the developmental to perform all required watch supervision duties and responsibilities.

Course 55073, Facility Controller-In-Charge (Terminal Part B), is designed for CPCs and TMCs selected to be CICs in a terminal environment. Site specific OJT is provided enabling the developmental to perform all required watch supervision duties and responsibilities.

**Prerequisite:** Successful completion of Course 55072, En Route, Part A

or

Course 55073, Terminal, Part A

**Location:** Field facility

**Training Length:** Facility determines OJT hours

**Administration:** Training is administered through OJT instruction, skill enhancement training, and skill check sessions. OJT is conducted in accordance with JO 3120.4.

**Exception:** Due to the duties associated with watch supervision, the assignment of a training team is not required. OJT must be conducted by a Frontline Manager (FLM). Performance and progress are assessed through observations by FLMs.

**Training Contents:** Course 55072, En Route Part B contains these areas of instruction. (Because of differences in operations among terminal radar approach controls, towers, and air route traffic control centers, the following job functions may not apply to all facilities.)

- Make position assignments
- Provide breaks
- Combine/decombine positions
- Monitor/configure equipment
- Monitor weather for impacts on air traffic
- Assign OJT

- Ensure available resources are deployed for optimal efficiency
- Identify need for overtime
- Process leave requests
- Document time and attendance
- Process and document FAA/facility forms
- Implement contingency plans
- Respond to unusual situations/emergencies/accidents and incidents
- Coordinate special operations
- Respond to information requests
- Handle public complaints
- Make on-the-spot corrections
- Eliminate distractions
- Demonstrate runway selection responsibilities
- Through simulation, respond to bomb threats, hijacking, and UFO reports
- Adhere to guidance and goals for the shift
- Maintains situational awareness
- Conduct and receive position relief briefings
- When necessary, implement flow control
- Identify and report harassment incidents
- Report equipment malfunctions
- Prevent air traffic occurrences
- Provide assistance to specialists
- Report and process mandatory and/or electronic occurrence reports
- Comply with labor contract requirements

Course 55073 contains the same areas of instruction as Course 55072, except in a terminal environment.

## **Section 5: Instructions for Completing the CIC OJT**

### **Instruction/Evaluation Report**

#### **FAA Form 3120-36**

**1. Introduction.** This appendix contains instructions for completing FAA Form 3120-36. This form must be used by FLMs to record their observations of the performance and progress of CPCs/TMCs selected as CIC during OJT instruction, skill enhancement training, and skill check sessions. FAA Form 3120-36 may be used to document on-the-job familiarization. A copy of

**Job Function Category: Training**

<b>Job Function</b>	<b>Indicator</b>
<i>15. Accomplishes training.</i>	<ul style="list-style-type: none"> <li>a. Ensures training activities are accomplished in a proper and timely manner.</li> <li>b. Ensures training documentation is accomplished in a proper and timely manner.</li> <li>c. Ensures OJT assignments are appropriate for level of proficiency.</li> <li>d. Ensures OJT instruction reports are prepared.</li> </ul>
<i>16. Documents training.</i>	<ul style="list-style-type: none"> <li>a. Ensures OJT assignments are appropriate for level of proficiency.</li> <li>Ensures OJT instruction reports are prepared.</li> </ul>

**Job Function Category: Human Relations and Communication**

<b>Job Function</b>	<b>Indicator</b>
<i>17. Communicates shift requirements effectively.</i>	<ul style="list-style-type: none"> <li>a. Provides on-the-spot corrections diplomatically.</li> <li>b. Manages workplace distractions utilizing courtesy and tact.</li> <li>c. Utilizes human relations skills when making operational assignments.</li> </ul>
<i>18. Communicates effectively with the public.</i>	<ul style="list-style-type: none"> <li>a. Coordinates facility visits.</li> <li>b. Responds to media inquiries appropriately.</li> <li>c. Communicates effectively with system users.</li> </ul>
<i>19. Maintains an effective work environment.</i>	<ul style="list-style-type: none"> <li>a. Communicates effectively to minimize workplace distractions.</li> <li>b. Is courteous, tactful, and displays a spirit of cooperation.</li> <li>c. Remains calm and displays a positive attitude under adverse conditions.</li> </ul>
<i>20. Communicates effectively with management.</i>	<ul style="list-style-type: none"> <li>a. Provides accurate and objective documentation of operational events to supervisory personnel.</li> <li>b. Communicates information about unusual situations in a timely and effective manner.</li> <li>c. Informs management of potential problems/situations when appropriate.</li> </ul>

<b>Job Function</b>	<b>Indicator</b>
<b><i>21. Provides complete and accurate relief briefings.</i></b>	<ul style="list-style-type: none"> <li>a. Follows approved checklist when exchanging information and both individuals acknowledge the positive transfer of responsibility.</li> <li>b. Ensures that questions about the operation of the position are resolved before transfer of responsibility is completed.</li> <li>c. Communicates pertinent status information including traffic management initiatives, weather information, and system situation.</li> <li>d. Signs on/signs off the position as appropriate.</li> </ul>

**Job Function Category: Quality Assurance**

<b>Job Function</b>	<b>Indicator</b>
<b><i>22. Prepares accident and incident reports that are complete and accurate.</i></b>	<ul style="list-style-type: none"> <li>a. Notifies management in a timely manner.</li> <li>b. Applies and follows directives.</li> <li>c. Prepares and forwards documentation.</li> </ul>
<b><i>23. Reports miscellaneous events accurately.</i></b>	<ul style="list-style-type: none"> <li>a. Completes daily reports.</li> <li>b. Requests a System Service Review (SSR).</li> <li>c. Records flight assists, noise damage issues, and complaints, reckless flying reports, and UFO reports and actions taken.</li> </ul>



**Appendix I. Reserved for OCEAN21****Ocean21 (O21)**

**General:** Developmentals and CPCs-in-Training assigned to Areas of Operation using Ocean21 shall receive the generic version course 59028, updated to the most current software build practicable, as a required element of Stage III and/or Stage IV training, as provided for in the local facility Training Orders.

**Administration:**

- a.** Developmental/CPC-ITs shall receive training using O21 upon completion of the applicable stage simulation training. Each developmental/CPCIT must complete Course 59028, Ocean21 Air Traffic Operator Training.
- b.** Upon completion of Course 59028, site specific instructional scenarios using O21 must be administered. These instructional scenarios provide the developmental/CPCIT with the opportunity to practice performing ATC duties using O21 in a simulated operational environment.
- c.** CPC transfers without previous O21 certification must complete Course 59028 prior to starting OJT on any O21 control position.
- d.** No examination, test, or scenario may be evaluated on a pass/fail basis.