BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 13-203

26 FEBRUARY 2004

Space, Missile, Command, and Control

AIR TRAFFIC CONTROL

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO WWW site at: **http://www.e-publishing.af.mil.**

OPR: AFFSA/XAO (Lt Col Timothy J. Arch) Certified by: AFFSA/XA (Col Sandra Serafin)
Supersedes AFI 13-203, 5 May 2003 Pages: 168
Distribution: F

This instruction implements AFPD 13-2, *Air Traffic Control, Airspace, and Airfield and Range Management*. It directs the management of US Air Force, AFRC and ANG air traffic systems, personnel (to included DoD and contract civilians) and facilities. It directs the administration of facilities, the use of equipment, the operation of control towers and air traffic control (ATC) radar facilities and the training of USAF air traffic controllers. HQ Air Force Flight Standards Agency, Director of Airfield Operations (AFFSA/XA) must approve all supplements and interim changes to previously approved supplements to this directive prior to implementation. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in the instruction in Title 10, United States Code, Section 8014. Privacy Act system of records notice F036 AFFSA A applies. **Attachment 1** lists References and Supporting Information used in this instruction.

SUMMARY OF REVISIONS

This revision incorporates Interim Change IC 2004-1. IC 04-1 major changes include: **Chapter 1**: contract ATC locations. **Chapter 2**: moved ATCSE to non-UMD position, added 13Ms to watch supervisor criteria, updated CATCA/ATCSS responsibilities. **Chapter 3**: added flight progress strips to forms, changed reference from tapes/disks to computer data recordings, added GPS approaches to ATARS tracking. **Chapter 4**: altered operating hours guidance to match AFI 13-204, added wake turbulence separation reminder, clarified QUICK LOOK and automatic release guidance. **Chapter 5**: enhanced automation guidance to include production of radar maps and MSAW, changed facility clock and rotating beacon procedures. **Chapter 6**: added aircraft arresting system notification requirements. **Chapter 7**: added to radar performance check guidance. **Chapter 8**: clarified NVD guidance. **Chapter 10**: Added guidance on stop training. **Chapter 11**: Deleted qualified apprentice controller paragraphs, clarified 7-level upgrade training and training evaluations. **Chapter 12**: Updated task certifier guidance. **Chapter 13**: new guidance on apprentice controller proficiency testing. **Chapter 14**: provided more detail on facility evaluations. **Chapter 16**: Added SIGNAL to ATC simulation guidance, expanded guidance on static scenarios and simulation administrator responsibilities. **Chapter 17**: documentation guidance. **Attachment 1**: Added

definitions of stop training and simulation scenarios, deleted qualified apprentice controller. **Attachment 5** – **Attachment 9**: minor changes to withdrawal requirements. Minor changes were made throughout and include correcting spelling, reference updates and editing errors. A bar (|) indicates revision from the previous edition.

This instruction implements AFPD 13-2, Air Traffic Control, Airspace, and Airfield and Range Management. It directs the management of US Air Force, AFRC and ANG air traffic systems, personnel and facilities. It directs the administration of facilities, the use of equipment, the operation of control towers and air traffic control (ATC) radar facilities and the training of USAF air traffic controllers. HQ Air Force Flight Standards Agency, Director of Airfield Operations (AFFSA/XA) must approve all supplements and interim changes to previously approved supplements to this directive prior to implementation. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in the instruction in Title 10, United States Code, Section 8014. Privacy Act system of records notice F036 AFFSA A applies. **Attachment 1** lists References and Supporting Information used in this instruction.

PART 1—GENERAL INFORMATION **10**

Chapter 1—USAF ATC GOVERNING DIRECTIVES **10**

1.1. Use of This Instruction and Application of FAA ATC Directives to the Air Force .. 10

1.2. Authorized Deviations from this AFI. 10

1.3. Waivers and Recommended Changes. 10

1.4. Conflicting Directives 11

1.5. General Notices (GENOTs) and FAA Notices. 11

1.6. Issuing New USAF ATC Policy or Procedures. 12

1.7. ATC Publications. 12

1.8. Local Operating Procedures (LOP). 12

1.9. Implementing LOPs. 13

1.10. Air Traffic Control Training Series (ATCTS). 13

1.11. Contract Locations. 13

Chapter 2—PERSONNEL TITLES, QUALIFICATIONS, RESPONSIBILITIES AND RESTRICTIONS **14**

2.1. Tower, RAPCON, GCA, Facility Chief Controller (CCTLR): 14

2.2. Chief, ATC Training (CATCT): 15

2.3. Chief, Standardization and Evaluation (CSE): 17

2.4. Chief, ATC Training and Standardization (TSN): 18

2.5. Watch Supervisor (WS) or Senior Controller (SC): 18

2.6. Chief, ATC Automation (CATCA). 19

2.7. ATC Systems Specialist (ATCSS). 20
2.8. Non-UMD Positions. 21
2.9. Facility Staffing Requirements. 23
2.10. ATC Restrictions and Duty Limitations: 24

PART 2—ATC PROCEDURES 27

Chapter 3—MANAGING ATC RECORDS, INQUIRIES AND DATA 27
3.1. ATC Forms. 27
3.2. Recorded Records. 28
3.3. Charts, Maps, Publications and Instruction Files. 28
3.4. Information Regarding Aircraft Mishaps/Incidents. 29
3.5. Military Air Traffic Activity Reports (RCS: HAF-XA[A]9352). 29
3.6. Changes in ATC Mission. 31

Chapter 4—OPERATING PROCEDURES 33
4.1. Hours of Operation. 33
4.2. Consolidating Positions. 33
4.3. Operating Initials. 33
4.4. Pre-Duty Familiarization. 33
4.5. Wind Information. 34
4.6. Use of Communications. 34
4.7. Landline Operations. 35
4.8. Alternate Communications. 35
4.9. Radar and Tower Coordination. 35
4.10. Minimum Distance Without Final Clearance. 38
4.11. Opposite Direction Traffic. 38
4.12. Practice Instrument Approaches. 38
4.13. Clearance Delivery. 38
4.14. Emergency Frequencies. 39
4.15. Notice to Airmen (NOTAM). 39
4.16. Interruptions to ATCALS. 39
4.17. Monitoring Navigational Aid Equipment. 40
4.18. Auxiliary Power for ATCALS Facilities. 40

4.19. Alternate ATC Facilities. 41
4.20. Precision Approach Critical Areas. 41
Figure 4.1. Localizer Critical Area. 44
Figure 4.2. Glide Slope Critical Area. 45
Figure 4.3. Touchdown Area. 45
Figure 4.4. MMLS Azimuth Critical Areas. 46
Figure 4.5. MMLS Elevation Critical Areas. 46
4.21. Displaced Landing Threshold. 46

Chapter 5—EQUIPMENT **47**
5.1. Equipment Checks. 47
5.2. Facility Clocks. 48
5.3. Weather Equipment Warning Devices. 48
5.4. Recorders. 48
5.5. Primary Crash Alarm System (PCAS). 50
5.6. Land Mobile Radios (LMR). 50
5.7. Airfield Lighting Systems. 50
5.8. Multiple Instrument Landing Systems (ILS) Facilities: 51
5.9. ILS Equipment Requirements for Operation. 51
5.10. Automated ATC Systems. 51
5.11. Radar Mapping Equipment. 57
5.12. Battery-Powered Transceivers. 58
5.13. Control Tower Plastic Window Shades. 58
5.14. Control Tower Cab Windows. 58
5.15. Facility Security. 58
5.16. Gas Mask (MCU-2A/P) Communication System Interface Equipment. 58
5.17. Emergency Warning and Evacuation Alarms. 58
5.18. Certified Tower Radar Display (CTRD). 59

Chapter 6—CONTROL TOWER OPERATIONS **60**
6.1. Light Gun Operations. 60
6.2. Takeoff or Landing Direction Determination. 60
6.3. Control of Ground Traffic in Controlled Movement Areas. 60

6.4. Wind Limitations on Control Towers. 60
6.5. Functional Use of Certified Tower Radar Display (CTRD). 60
6.6. Wear of Sunglasses in Control Towers. 61
6.7. Protection of 360 Overhead Pattern. 61
6.8. Tower Equipment Requirements. 61
6.9. Tower Departure Restrictions. 62
6.10. USAF VFR Tower Operations Within Class C Airspace. 62
6.11. Land and Hold Short Operations (LAHSO). 63
6.12. Aircraft Arresting System Maintenance/Reconfiguration Notification. 63

Chapter 7—RADAR OPERATIONS 64

7.1. Radar Use. 64
7.2. AN/TPX-42 Strapping. 64
7.3. Range Azimuth Beacon Monitor (RABM). 64
7.4. Radar Reflectors for Precision Approach Radar (PAR). 65
7.5. Radar Glide Path and Course Information. 65
7.6. PAR Safety Zones. 65
Figure 7.1. Typical FPN-62 Elevation Display. 67
Table 7.1. PAR Lateral Safety Limits and Approximate Displacement Distance. 67
7.7. Decision Height (DH). 67
7.8. Use Of Precision Approach Radar (PAR) to Monitor Instrument Final Approach Courses. 67
7.9. Airport Surveillance Radar (ASR) Approach Procedures. 68
7.10. Radar Performance Checks. 68
7.11. Air Base Defense. 69
7.12. Optimum Antenna Tilt. 69
7.13. Surveillance Antenna Operation in High Wind. 69
7.14. Minimum Safe Altitude Warning (MSAW)/ Low Altitude Alerting System (LAAS). 69
7.15. Diverse Vector Areas (DVA). 69
7.16. Designation of Sectors. 70
7.17. Multiple Radar Final Control (RFC) Requirement. 70
7.18. Radar Equipment Requirements. 70

7.19. PAR Associated Equipment Requirements. 70
7.20. Turn around for ATC Radar. 71
7.21. Center Radar Presentation (CENRAP). 71
7.22. FAA/USAF Contingency Plan Agreements. 73

Chapter 8—SPECIAL OPERATIONS AND SUPPLEMENTAL PROCEDURES 76

8.1. Exercises. 76
8.2. Aircraft Arresting Systems. 76
8.3. Supervisor of Flying (SOF). 76
8.4. Aircraft Priorities. 76
8.5. Reduced Same Runway Separation (RSRS) 77
8.6. Radar In-Trail Recovery. 77
8.7. Unlawful Seizure of Aircraft. 77
8.8. Min-Comm/Comm-Out. 77
8.9. Night Vision Device (NVD) Use for ATC 78
8.10. Explosives Detection K-9 Teams. 79
8.11. Parachute Jump Operations. 79
8.12. Prohibited/Restricted Areas. 80

Chapter 9—PROCEDURES FOR ESTABLISHING VFR FLYING AREAS AND TRAFFIC PATTERNS 81

9.1. VFR Traffic Patterns: 81
9.2. VFR Traffic Pattern Types: 81
9.3. VFR Traffic Pattern Altitudes. 81
9.4. Environmental Impact Analysis and Air Installation Compatible Use Zone (AICUZ). 82

PART 3—AIR TRAFFIC CONTROL TRAINING 83

Chapter 10—ATC TRAINING PROGRAM 83

10.1. Purpose. 83
10.2. Front Load Training (FLT). 83
10.3. OI Construction. 83
10.4. Position Certification Guide (PCG) Development. 85
10.5. Development of ATCTS. 86

Chapter 11—UPGRADE TRAINING **88**

11.1. Definition. 88

11.2. Initial Training Evaluation. 88

11.3. Three-Skill Level Upgrade Training. 88

11.4. Five-Skill Level Upgrade Training. 88

11.5. Additional Training Time. 89

11.6. Seven-Skill Level Upgrade Training. 89

11.7. Training Evaluations. 89

11.8. Apprentice Controller Training Progression 90

Chapter 12—QUALIFICATION TRAINING **92**

12.1. Definition. 92

12.2. Management Training Guides. 92

12.3. Management Training Documentation. 92

12.4. Trainer Qualification. 93

12.5. Task Certifier Qualification. 93

12.6. Weather Training. 94

12.7. Special Tactics Combat Control Team (CCT) Training. 94

Chapter 13—RECURRING AND REVIEW TRAINING **95**

13.1. Definitions. 95

13.2. Recurring Training Schedule. 95

13.3. Review Training Schedule. 96

13.4. ATC Training Series. 96

13.5. Recurring/Review Training Dissemination. 96

13.6. Proficiency Testing. 96

Chapter 14—ATCS CERTIFICATION MANAGEMENT, FACILITY RATINGS AND CERTIFICATES **98**

14.1. Air Traffic Control Specialist (ATCS) Certificate. 98

14.2. Facility Rating/Position Evaluation Requirements. 98

14.3. Upon completion of an evaluation, complete the following: 99

14.4. Position Certification and Facility Rating Suspension. 100

14.5. Cancellation of Position Certifications and Facility Ratings. 100

14.6. Special Evaluations. 100
14.7. Facility Evaluations. 101
14.8. Annual and Controller Evaluations. 102

Chapter 15—ATC WITHDRAWALS 103
15.1. Withdrawal from ATC Duty. 103
15.2. Withdrawal Categories 103
15.3. Withdrawal and Reinstatement Procedures and Notification (RCS: HAF- XA[AR]9715): 105

Chapter 16—INSTRUCTIONAL TECHNOLOGY 107
16.1. AOF Web Program. 107
16.2. ATC Simulation Equipment (ATCSE). 107
16.3. Simulation Scenarios. 108
16.4. CATCT or Assistants. 109
16.5. Technical Support. 109

Chapter 17—TRAINING RECORDS 110
17.1. Maintenance. 110
17.2. Format. 110
17.3. Form Disposition. 110
17.4. AF Form 623 Documentation. 111
17.5. Forms Prescribed. 111
17.6. Forms Adopted. 111

Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION 113

Attachment 2—SAMPLE MEMORANDUM, SUSPENSION OF ATCS CERTIFICATE 127

Attachment 3—SAMPLE MEMORANDUM, CHANGE OF RECOMMENDED WITHDRAWAL CATEGORY 128

Attachment 4—SAMPLE MEMORANDUM, FEAR OF CONTROLLING (FOC) STATEMENT 129

Attachment 5—AFSC WITHDRAWAL CHECKLIST FOR CONTROLLERS WHO FAIL TO OBTAIN OR MAINTAIN POSITION CERTIFICATION OR FACILITY RATING (FTOR) 130

Attachment 6—ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR DRUG ABUSE (DA) 133

Attachment 7—ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR ALCOHOL ABUSE 135

Attachment 8—ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR HAZARD/ POTENTIAL HAZARD TO FLIGHT SAFETY DUE TO CHARACTER AND BEHAVIOR DISORDER 137

Attachment 9—ATCS CERTIFICATE WITHDRAWAL CHECKLIST UNDER CATEGORY "OTHER" 139

Attachment 10—IC 2003-1 TO AFI 13-203, AIR TRAFFIC CONTROL 141

Attachment 11—IC 2004-1 to AFI 13-203, AIR TRAFFIC CONTROL 154

PART 1

GENERAL INFORMATION

Chapter 1

USAF ATC GOVERNING DIRECTIVES

1.1. Use of This Instruction and Application of FAA ATC Directives to the Air Force. This instruction provides USAF guidance for providing ATC services and operating ATC facilities. HQ Air Force Flight Standards Agency (AFFSA), Director of ATC/AM Airfield Operations (AFFSA/XA) sets standards and procedures for the internal operation of each USAF ATC facility. MAJCOMs may supplement USAF standards and procedures specified in this AFI, with HQ AFFSA/XA approval. The following Federal Aviation Administration (FAA) directives, relating to ATC, apply to all USAF controllers:

1.1.1. FAA Order 7110.65, *Air Traffic Control*

1.1.2. FAA Order 7610.4, *Special Military Operations*

1.1.3. FAA Order 8240.41, *Flight Inspection/Air Traffic Coordination*

NOTE: This AFI incorporates USAF applicable facility management guidance established in FAAO 7210.3, Facility Operation and Administration, and FAA Order 7220.1, Certifications and Rating Procedures, and contingency planning guidance in response to National Airspace System (NAS) equipment failures established in FAA Order 1900.47, Air Traffic Services Contingency Plan.

1.2. Authorized Deviations from this AFI. Use this instruction and applicable FAA phraseology and procedures except as indicated below.

1.2.1. National regulations or agreements adopted for USAF use in overseas areas take precedence over this instruction; however, every effort should be made to conform to this instruction. Refer conflicting procedures to higher headquarters for review and direction. Include host nation procedures, adopted for USAF use, in MAJCOM supplements.

1.2.2. Host regulations and procedures apply to USAF controllers who augment a civil or foreign ATC facility.

1.2.3. USAF controllers who augment a facility operated by another branch of the US military will comply with the ATC regulations and procedures of the host service branch.

1.2.4. Operations at contingency locations during combat: Operations Group Commanders, or equivalent, may authorize specific deviations for their airfields when responding to immediate tactical requirements at contingency locations; however, in the interest of flight safety, this should be only by exception. Process deviations that go beyond immediate tactical requirements according to paragraph **1.3.1.**

1.3. Waivers and Recommended Changes.

1.3.1. Waivers. Use AF Form 4058, *Airfield Operations Policy Waiver*, to request waivers to ATC procedural guidance. If additional space is required for specific blocks, annotate them on plain bond

paper and attach them to the form. Precede each continued comment with the number of the block it extends.

1.3.1.1. Completion of Blocks 1-6 is mandatory for unit level submissions. Wing Commander or Operations Group Commander comments in Block 6 are optional, however the remainder of block 6 is required.

1.3.1.2. Additional data such as draft revisions to base Airfield Operations Instruction, draft letters of agreement, maps of terminal airspace/traffic patterns, etc., should be attached, when applicable, to further clarify intended procedures that support the waiver request.

1.3.1.3. The AOF/CC forwards waiver requests through the OG/CC, then to the MAJCOM office of primary responsibility (OPR) for ATC. If the MAJCOM OPR for ATC favorably endorses the waiver, it is forwarded with recommended action to HQ AFFSA/XA.

1.3.1.4. HQ AFFSA/XA is approval authority for waivers to this AFI. To ensure a periodic revalidation of waiver requirements, HQ AFFSA/XA normally grants air traffic control operations waivers for 2 year periods. MAJCOMs may approve temporary waivers for procedural or operational issues which their units can resolve within 6 months. MAJCOMs will send an information copy of all temporary waiver approvals to HQ AFFSA/XA.

NOTE: MAJCOMs must send all waiver requests involving manpower issues, facility staffing levels and upgrade requirements to HQ AFFSA/XA. All waiver renewal requests shall reach AFFSA NLT 30 days prior to expiration.

1.3.1.5. HQ FAA is approval authority for waivers to FAA Orders. Requests for waivers to FAA criteria must be submitted using the AF Form 4058. Waiver renewal requests shall reach AFFSA NLT 5 months prior to expiration. Following MAJCOM and HQ AFFSA approval, AFFSA/XA will forward the waiver request to HQ FAA for final processing and will relay the FAA's determination (approval/disapproval/additional requirements for approval) to the MAJCOM.

1.3.2. Changes. Recommendations for changes to this instruction may be submitted on AF Form 847, *Recommendation for Change of Publication* or via official memorandum. Recommendations for changes should be forwarded via the MAJCOM OPR for ATC to AFFSA/XA. If official memorandum is used, recommended text changes and rationale for the change are required.

1.3.3. Special Use Airspace (SUA) waivers which impact terminal ATC operations must be coordinated with the MAJCOM OPR for ATC. Approved waivers to AF directives must be made available to all agencies affected by the waiver. ***NOTE***: SUA issues are primarily managed by the MAJCOM OPR for Airspace Management.

1.4. Conflicting Directives . Units affected by FAA orders, notices, or other related ATC directives not implemented by the Air Force must send such directives, through MAJCOM channels, to AFFSA/XA for resolution.

1.5. General Notices (GENOTs) and FAA Notices. HQ AFFSA/XA receives and reviews all GENOTs and FAA Notices for USAF application. FAA guidance of this nature that applies to USAF ATC facilities will be retransmitted by AFFSA via message to units and MAJCOM staffs. Units or MAJCOMs that receive GENOTs or FAA Notices that appear to impact USAF ATC facilities, when a USAF implementation message has not been issued, contact AFFSA/XAOP, through MAJCOM channels, to confirm if the guidance applies.

1.6. Issuing New USAF ATC Policy or Procedures. In accordance with AFI 33-360, Vol 1, *Publications Management Program*, new policy or procedures may be implemented via memorandum or message pending revision of the governing directive. All new USAF ATC policy/procedures will be distributed through appropriate command channels. These memorandums or messages will also be posted on the AFFSA web site at **https://wwwmil.andrews.af.mil/pages/AFFSA/affsa_xa.htm** until formalized in the governing publication. Mail List (ML) 9354 and/or Address Group Indicator (AIG) 9354 is the message address group used by AFFSA/XA to ensure widest dissemination of air traffic control and airfield management related policy and guidance for expeditious implementation and/or information. Direct recipients of ML/AIG 9354 are the MAJCOM airfield operations staffs, OSS Commanders and Airfield Operations Flight Commanders. ML/AIG 9354 messages will be posted on the AFFSA web site, in addition to being electronically released.

1.7. ATC Publications. Publications in **Attachment 1** provide reference guidance for operating ATC facilities. It is recommended that units maintain a comprehensive publication library accessible to all ATC personnel. Chief controllers (CCTLRs) will ensure appropriate publications necessary to provide ATC services are available in each facility.

1.8. Local Operating Procedures (LOP). All regulatory guidance describing local ATC services must be published in a local operating procedure such as a letter of agreement (LOA), operations letter, flight or facility operating instruction (OI), base airfield operations instruction, or operations plan (OPLAN). LOPs that affect ATC services must be forwarded to the MAJCOM OPR for ATC for approval, prior to publication. This includes base and unit level instructions that have ATC taskings, but does not include OIs on administrative functions such as facility clean-up, leave procedures, etc. This review ensures that local directives comply with federal, USAF, MAJCOM and host nation ATC policy. When forwarding LOPs for approval, attach a cover letter that describes each change and include rationale for each change. ***NOTE:*** The MAJCOM OPR for ATC coordinates, reviews and approves ATC LOPs between the Air Force and a host country. Affected MAJCOMs will establish procedures in MAJCOM supplements to this instruction, for how this process will be conducted. (Additional guidance is provided in AFI 51-701, *Negotiating, Concluding, Reporting, and Maintaining International Agreements*).

1.8.1. LOAs are established between Air Force units or agencies on a particular base and a non-Air Force agency from the base or any unit or agency from another location. Routinely, LOAs are established between a supported wing and an FAA Approach Control or FAA ARTCC. Refer to the LOA section of FAAO 7210.3 for formatting and guidance on general content of LOAs.

1.8.2. Operations letters are established between ATC facilities, or between an ATC facility and another Air Force base agency to supplement operational or procedural instructions and to standardize operations. Describe special operating conditions or ATC procedures that are peculiar to a certain location.

1.8.3. Facility Operating Instructions (OIs) are established to regulate and standardize operational and administrative practices.

1.8.4. The base Airfield Operations Instruction (AOI) provides guidance regarding all activities on the airfield and in the terminal environment which directly affect flying operations. It is the primary source document for describing local ATC, airfield and flying operations applicable to base assigned aircrews, such as VFR and radar traffic patterns, in-flight emergency response procedures, local air-

craft priorities, etc. More specific guidance for the base AOI is provided in AFI 13-204, *Functional Management of Airfield Operations.*

1.8.5. OPLANs provide guidance for contingency/wartime operations. When applicable, ATC taskings are addressed in an OPLAN annex. Guidance for format and content of OPLANs is contained in AFMAN 10-401, Vol 2, *Planning Formats and Guidance*.

1.9. Implementing LOPs. Upon obtaining MAJCOM approval for a LOP, incorporate any required MAJCOM revisions and prepare the LOP in final form. Establish an effective date that allows reasonable time for familiarization and pre-implementation actions after the finalized agreement is signed. FAA requires at least 30 days for LOA familiarization and pre-implementation. Distribute copies of the signed agreement to all affected agencies.

1.10. Air Traffic Control Training Series (ATCTS). The ATCTS furnish standardized training materials for the Airfield Operations Officer (13MX) and enlisted (1C1X1) career fields. The ATCTS use the Instructional System Development (ISD) process in support of the Career Field Education and Training Plan, Air Force Job Qualification Standards and the Airfield Operations Officer Training Program.

1.11. Contract Locations. This AFI applies to contract locations as specifically outlined in the contract Statement of Work.

Chapter 2

PERSONNEL TITLES, QUALIFICATIONS, RESPONSIBILITIES AND RESTRICTIONS

2.1. Tower, RAPCON, GCA, Facility Chief Controller (CCTLR): Each ATC facility (except RFC) must have a CCTLR. The CCTLR is responsible for overall activities in the control room or tower cab, ATC services provided by that facility and for direct supervision of the personnel assigned to the facility.

NOTE: Where staffing dictates, at locations with both tower and radar facilities, the AOF/CC may authorize a single Complex CCTLR in lieu of assigning a CCTLR for each facility. If a Complex CCTLR concept is used, individual facility CCTLRs are not authorized.

2.1.1. Qualifications for selection as CCTLR: Must hold PAFSC 1C100, 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only). Must have performed ATC duties for at least 5 years (not including instructor duty), and have 1 year experience in the type facility to manage, excluding RFC.

2.1.1.1. A Complex CCTLR must hold at least AFSC 1C191.

2.1.1.2. When reduced facility staffing warrants, MAJCOMs may approve temporary appointments of otherwise qualified GS-2152s to CCTLR positions for a period not to exceed 120 days in duration. MAJCOM approved appointments will be forwarded to HQ AFFSA/XA.

NOTE: Ensure Personnel Action (SF 52) is submitted to servicing civilian personnel office prior to start date of temporary appointment.

2.1.2. Qualifications Upon Assignment to CCTLR Duties:

2.1.2.1. Must complete the CCTLR portion of the AFJQS 1C1X1-002 and AT-M-05, CCTLR Task Certification Guide within 6 months of initial assignment to the CCTLR position.

2.1.2.2. Must become certified in at least one operating position in the facility (at least one operating position in each facility for Complex CCTLRs) within 1 year of arriving on station and maintain proficiency.

2.1.3. Responsibilities.

2.1.3.1. Manage the internal operation of the ATC facility. ***NOTE:*** Complex CCTLRs manage the internal operation of both ATC facilities.

2.1.3.1.1. Establish a program to ensure controllers maintain proficiency in all positions in which they are certified. When positions are combined, proficiency time may count for each position provided the controller performs ATC duties associated with each position under normal workload conditions. Publish program requirements in an LOP. This program must include:

2.1.3.1.1.1. Minimum monthly position time requirements and a means of tracking position time. Outline any additional actions to be taken, beyond those required in **Chapter 14** when a controller fails to meet requirements.

2.1.3.1.1.2. Use the definition of proficiency in **Attachment 1** to clearly define traffic conditions that must exist in order to count proficiency time.

2.1.3.1.1.3. CCTLR's may authorize use of simulation scenarios as an aid in maintaining controller proficiency. Use of simulation for proficiency shall not exceed

50 % of the minimum proficiency time requirement. Design scenarios IAW **Chapter 16**.

2.1.3.1.2. Determine the required minimum number of qualified controllers scheduled and present for duty based on published facility hours, services required by assigned flying units and scheduled flying activities.

2.1.3.1.3. Outline requirements for pre-duty familiarization briefings and procedures that provide for a smooth transition from one crew to the next. Procedures must allow for continued ATC services without interruption and be published in a facility operating instruction.

2.1.3.1.4. Provide detailed radar and video map and alignment procedures in the appropriate ready reference file and/or equipment checklist in accordance with paragraph **5.1.3.**

2.1.3.1.5. CCTLRs will define responsibilities and functions of each operating position in a facility OI.

2.1.3.1.6. Ensure that upgrade/SEI information is submitted to the Unit Training Manager for inclusion in the individual's personnel record. The CCTLR validates all upgrade/special experience identifier (SEI) information prior to submission.

2.1.3.1.7. Review and initial all AF Forms 3616.

2.1.3.2. Advise the AOF/CC on ATC procedural and safety of flight issues.

2.1.3.3. Implement approved ATC procedural changes in support of the wing flying mission, FAA and host nation requirements.

2.1.3.4. Ensure all assigned controllers meet appropriate physical qualification requirements.

2.1.3.5. Ensure controller training is in accordance with the training OI. When necessary, initiate corrective measures to ensure the training program meets mission and CCTLR requirements.

2.1.3.6. Ensure all training record discrepancies, identified in the CATCTs training record inspection results report, are corrected monthly.

2.2. Chief, ATC Training (CATCT):

2.2.1. Qualifications.

2.2.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.2.1.1.1. When reduced facility staffing warrants and no other qualified 1C1 personnel are available, MAJCOMs may approve temporary appointments of otherwise qualified GS-2152s to CATCT positions for a period not to exceed 120 days in duration. MAJCOM approved appointments will be forwarded to HQ AFFSA/XA. NOTE: Ensure Personnel Action (SF 52) is submitted to servicing civilian personnel office prior to start date of temporary appointment.

2.2.1.2. Must be certified in all positions, in all facilities before assuming duties and maintain proficiency.

2.2.1.2.1. At RAPCON locations with high density traffic (more than 25,000 operations quarterly), the CATCT must maintain proficiency in approach control, assistant approach control, and local control positions rather than all positions.

2.2.1.2.2. At short tour locations, the CATCT must be certified in a facility before assuming duties and maintain proficiency.

NOTE: An assistant CATCT must be available to handle training issues in the facility in which the CATCT is not rated.

2.2.1.3. Must complete the CATCT portion of the AFJQS 1C1X1-002 and the CATCT section of AT-M-04, TSN Task Certification Guide within 6 months of initial assignment to the CATCT position.

2.2.1.4. Attendance at Instructional Systems Designer Course, #J3AZR3S200010, is recommended. Because course nomenclatures can change without notice, verify correct course number and enrollment procedures at *Education and Training Course Announcement (ETCA),* ***https://etca.randolph.af.mil*** formerly AFCAT 36-2223, *USAF Formal Schools*.

2.2.2. Responsibilities.

2.2.2.1. Manages the training program. At those locations where the flight support element is authorized only one 1C1X1, the duty title will be Chief, ATC Training and Standardization (TSN). TSN responsibilities include those of CATCT and Chief, Standardization and Evaluation (CSE).

2.2.2.2. Develop and manage the unit ATC training program.

2.2.2.3. Coordinate training requirements with the AOF/CC, CCTLRs, CSE and CATCA.

2.2.2.4. Monitor facility training capability.

2.2.2.5. Prepare and coordinate monthly training schedule (i.e., training classes) with ATC staff.

2.2.2.6. Coordinate monthly controller proficiency training requirements with the ATC staff. Provide controllers with a monthly proficiency training requirement letter. As a minimum, include required review, recurring and supplemental training for the month.

2.2.2.7. Inspect training record documentation for accuracy, completeness and standardization. Provide the AOF/CC, CCTLRs and CATCAs with inspection results at least monthly.

2.2.2.8. Manage computer-based instructional (CBI) programs.

2.2.2.9. Conduct the training review board.

2.2.2.10. Develop master facility training record (AF Form 623).

2.2.2.11. Develop and maintain facility master training plans.

2.2.2.12. Specify duties and responsibilities of ACATCTs in writing. Coordinate ACATCT activities with respective CCTLRs.

2.2.2.13. Review Field Evaluation Questionnaires (FEQ) for validity prior to submission.

2.2.2.14. Coordinate and process annual formal school training requirements according to the *Education and Training Course Announcement (ETCA)*.

2.2.2.15. Develop and manage the unit ATC simulation resources. Coordinate simulation administrator activities with respective CCTLR(s) or CATCA.

2.2.2.16. Build and maintain sector and scenario simulation products, as described in **PART 3**.

2.2.2.17. Train controllers on the use of the simulation equipment, as described in **PART 3**.

2.2.2.18. Assist the ATCSE Administrator with developing a simulation equipment continuity folder that is available to all users.

2.2.2.18.1. DELETED

2.2.2.18.2. DELETED

2.2.2.18.3. DELETED

2.2.2.18.4. DELETED

2.2.2.18.5. DELETED

2.2.2.18.6. DELETED

2.2.2.18.7. DELETED

2.2.2.18.8. DELETED

2.2.2.19. Ensure Training Status Codes (TSC) reflect accurate status of personnel assigned according to AFI 36-2201 Vol 3, Air Force Training Program on the Job Training Administration, **Attachment 3**.

2.3. Chief, Standardization and Evaluation (CSE):

2.3.1. Qualifications.

2.3.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.3.1.2. Must be certified in all positions in all facilities before assuming duties and maintain proficiency.

2.3.1.2.1. At short tour locations, must be certified in all positions in the most complex facility before assuming duties and maintain proficiency.

2.3.1.2.2. An assistant CSE (CTO examiner when appropriate) must be available to conduct ratings in the facility in which the CSE is not rated.

2.3.1.3. Must complete the CSE portion of the AFJQS 1C1X1-002 and the CSE section of AT-M-04, TSN Task Certification Guide within 6 months of initial assignment to a CSE position.

2.3.2. Responsibilities.

2.3.2.1. Administer the ATC certification and rating program. Serve as the primary ATC Specialist (ATCS) examiner. When the FAA delegates responsibilities to the local unit, will also serve as the Control Tower Operator (CTO) examiner.

2.3.2.2. Perform position certification/facility ratings and special evaluations using standards published in the facility Position Certification Guides.

2.3.2.3. Evaluate the training program to ensure it meets mission, CCTLR and CATCA requirements. At locations with a TSN only, the AOF/CC will appoint a facility rated 7-level controller to evaluate the training program. Evaluate components of the training program using guidance contained in AFMAN 36-2234, *Instructional System Development*, Chapter 7, Section C and Chapter 8.

2.3.2.4. Specify duties and responsibilities of ACSEs in writing. Coordinate ACSE activities with respective CCTLRs.

2.3.2.5. Develop and administer monthly controller proficiency tests and other associated evaluation requirements.

2.4. Chief, ATC Training and Standardization (TSN):

2.4.1. Qualifications.

2.4.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.4.1.2. Must be certified in all positions in all facilities before assuming duties and maintain proficiency.

2.4.1.2.1. At short tour locations, must be certified in all positions in the most complex facility before assuming duties and maintain proficiency.

2.4.1.2.2. An assistant TSN (CTO examiner when appropriate) must be available to conduct ratings in the facility the CSE does not hold ratings.

2.4.1.3. Must complete the CSE and CATCT portions of the AFJQS 1C1X1-002 and the CSE and CATCT sections of AT-M-04, TSN Task Certification Guide within 9 months of initial assignment to a TSN position.

2.4.1.4. Attendance at Instructional Systems Designers (ISD) Course, #J3AZR3S200, is recommended. See the *Education and Training Course Announcement (ETCA)*, formerly AFCAT 36-2223, for enrollment procedures.

2.4.2. Responsibilities. A TSN serves in the capacity of a CATCT and CSE where only one 1C1X1 position is authorized. The TSN assumes the responsibilities of the CATCT and CSE as indicated in paragraphs **2.2.2.** and **2.3.2.**

2.5. Watch Supervisor (WS) or Senior Controller (SC):

2.5.1. Qualifications.

2.5.1.1. Must hold AFSC 13M, 1C100, 1C191, 1C171 or GS-2152, have performed ATC duties for at least 3 years (not including instructor duty or staff duty), and have one year's experience in type facility to supervise, excluding RFC. (RAPCON satisfies the GCA experience requirement).

2.5.1.2. Must be rated in all positions, including coordinator positions, and maintain proficiency.

2.5.1.3. Must complete the facility WS Task Certification Guide prior to performing duties as a WS and be selected/appointed by the CCTLR.

2.5.2. Responsibilities.

2.5.2.1. The WS maintains situational awareness of the overall flow of air traffic operations within their facility assigned, and when applicable, on the airport movement area. The WS is responsible for all ATC facility operations and services during their shift.

2.5.2.2. If necessary, the WS or SC may limit or disapprove operations based on existing traffic congestion or complexity, staffing, weather or individual controller training and experience capabilities.

2.5.2.3. A SC is also simultaneously responsible for duties at an operating position.

2.6. Chief, ATC Automation (CATCA).

2.6.1. Qualifications.

2.6.1.1. Must hold PAFSC 1C171, 1C191 or GS-2152 with automation equivalency, performed ATC automation duties for at least 3 years, and have one year experience in type of automation work center to manage.

2.6.1.2. Must become position certified or facility rated within 12 months of initial assignment to the CATCA position and maintain proficiency. Minimum certifications to obtain are approach or departure control and associated assistant position (equivalent positions for enroute/range facilities) or arrival control and assistant arrival control in GCA facilities. Additional certifications, determined by the AOF/CC, should be based on the complexity of the facility. ***EXCEPTION:*** MAJCOMs may or may not require GS-2152 CATCAs to obtain position certifications. If MAJCOMs do not require position certifications for GS-2152 CATCAs, they will be required to monitor/observe facility operations as specified by the AOF/CC. This is to ensure an understanding of the operations and requirements of the local ATC system.

2.6.1.3. Must complete the ATCSS formal courses for the system supported at the site. Completion of this course and experience requirements are outlined in AFMAN 36-2108 for award of the Special Experience Identifier (SEI).

2.6.1.4. Upon completion of local ATCSS qualification training should retain this duty for a minimum of 3 years. This will ensure effective management of formal school training allocations and continuity of the automation function at the unit level.

2.6.1.5. Must complete the CATCA AF Form 797 task items and CATCA Task Certification Guide within 6 months of initial assignment to the CATCA position.

2.6.2. Responsibilities:

2.6.2.1. Manage the internal operation and establish procedures for the ATC automation work center.

2.6.2.1.1. Ensure an adequate number of ATCSSs are scheduled to support mission requirements. Notify the CCTLR and Watch Supervisor if ATCSS support is unavailable.

2.6.2.1.2. CATCA will define CDR procedures in an LOP, to include procedures on reviewing CDR media.

2.6.2.2. Direct automation activities for system analysis and design, programming operations, maintenance, security, systems management, technical support and resource management. Help functional users define requirements. Recommend automation methods to enhance resource use.

2.6.2.2.1. Maintain configuration control over ATC operational computer programs ensuring compliance with FAA, USAF and local directives and specifications for the NAS.

2.6.2.2.2. Evaluate and coordinate automated system updates and enhancements with the ATC staff prior to implementation. After coordination, implement approved ATC automation programming and functional system changes in support of the wing flying mission and FAA requirements.

2.6.2.2.3. When system deficiencies are recognized, direct actions to ensure the adequacy of failure recovery and de-bugging procedures. Coordinate software problems with the ATC staff, CATCAs at other sites, MAJCOM, AFFSA, the appropriate FAA/DoD support personnel. Document and submit the appropriate automated system enhancement/ deficiency reports as required.

2.6.2.2.4. Direct and plan testing of ATC automation computer software.

2.6.2.2.5. Responsible for the automated ATC system administration, continuous data recording (CDR), playback systems and the implementation and maintenance of low altitude alerting systems. Coordinate with TERPS to obtain current MAJCOM-approved MVA map data for inclusion in DTAS database. Provide TERPS with all changes to the General Terrain Map (GTM).

2.6.2.3. Advise the AOF/CC on ATC automation procedural and safety of flight issues.

2.6.2.4. DELETED

2.7. ATC Systems Specialist (ATCSS).

2.7.1. Qualifications.

2.7.1.1. Must hold PAFSC 1C171, 1C151, or GS-2152 with automation equivalency and have performed air traffic control duties for at least 3 years (not including instructor duty).

2.7.1.2. Must become position certified or facility rated, within 12 months of initial assignment to the ATCSS position and maintain proficiency. Minimum certifications to obtain are approach or departure control and associated assistant position (equivalent positions for enroute/range facilities) or arrival control and assistant arrival control in GCA facilities. Additional certifications, determined by the AOF/CC, should be based on the complexity of the facility. ***EXCEPTION:*** MAJCOMs may or may not require GS-2152 ATCSSs to obtain position certifications. If MAJCOMs do not require position certifications for GS 2152 ATCSSs, they will be required to observe facility operations as specified by the AOF/CC. The observation requirement: Ensure an understanding of the operational requirements of the local ATC system.

2.7.1.3. Must complete the ATCSS formal courses for the system supported at the site. Completion of this course and experience requirements are outlined in AFMAN 36-2108 for award of the Special Experience Identifier (SEI).

2.7.1.4. ATCSSs cannot work unmonitored and are not considered qualified until they have successfully completed all required formal training courses and local qualification training task items. When task certified on non-critical tasks, identified by the CATCA and approved by the AOF/CC, ATCSSs may work unmonitored on those tasks only.

2.7.1.5. Upon completion of local ATCSS qualification training, should retain this duty for a minimum of 3 years. This will ensure effective management of formal school training allocations and continuity of the automation function at the unit level.

2.7.2. Responsibilities. As directed by the CATCA:

2.7.2.1. Monitors the operations of the facility's ATC automated systems during their shift.

2.7.2.2. Develops, modifies, integrates and tests computer software. Arranges test routines and prepares documentation.

2.7.2.3. Performs system updates. Integrates the automated ATC radar system's site adaptation, MSAW, and digital map databases.

2.7.2.4. Recommends system enhancements and functional changes and identifies system problems. Documents and reports enhancements and system problems as required.

2.7.2.5. Stores, controls, and safeguards automated systems operational computer software programs in accordance with LOP. Maintains the CDR storage library and administers CDR media changes as required.

2.7.2.6. Performs system playbacks, backups and restores in accordance with LOP.

2.7.2.7. Trains and/or briefs users on the operational use of supported computer systems as required.

2.7.2.8. Ensure compliance with directives governing security of automated ATC computer systems.

2.7.2.9. Helps the CATCT develop and integrate controller training scenarios for the automated ATC radar system.

2.8. Non-UMD Positions. The following additional duty responsibilities are described, although they have not earned a full time (funded) manpower authorization. The assistant positions are designed to groom the skills of junior enlisted controllers for future leadership positions. When deemed necessary and appropriate, GS-2152 controllers, who meet the equivalent qualifications required to perform these functions, may be assigned these additional duties. Standardized use of these positions, when used, is crucial to the successful operation of the AOF.

2.8.1. **Assistant Chief Controller:**

2.8.1.1. Qualifications.

2.8.1.1.1. Must be a 1C191 or 1C171 controller, certified in all positions, WS qualified and maintain proficiency. Must have performed ATC duties for at least 5 years (not including instructor duty) and have one year experience in the type facility to manage, excluding RFC.

2.8.1.1.2. Must complete the CCTLR portion of the AFJQS 1C1X1-002 and AT-M-05, CCTLR Task Certification Guide within 6 months of initial assignment to the ACCTLR position.

2.8.1.1.3. The CCTLR will determine whether an assistant CCTLR (ACCTLR) is required. Base selection of an ACCTLR on overall qualification for the position and not solely on rank.

2.8.1.2. Responsibilities will be established by the CCTLR.

2.8.2. **Assistant Chief, ATC Training (ACATCT):**

2.8.2.1. Qualifications.

2.8.2.1.1. Must hold AFSC 1C191, 1C171, 1C151 or GS2152 and have performed ATC duties for at least 4 years.

2.8.2.1.2. Must complete the CATCT portion of the AFJQS 1C1X1-002 and the CATCT section of AT-M-04, TSN Task Certification Guide within 6 months of initial assignment to the ACATCT position.

2.8.2.1.3. Must be certified in all positions in the facility where ACATCT support is provided.

2.8.2.2. Responsibilities will be established by the CATCT.

2.8.3. **Assistant Chief, Standardization and Evaluation (ACSE):**

2.8.3.1. Qualifications.

2.8.3.1.1. Must hold AFSC 1C191, 1C171, or GS2152 and have performed ATC duties for at least 5 years.

2.8.3.1.2. Must complete the CSE portion of the AFJQS 1C1X1-002 and the CSE section of AT-M-04, TSN Task Certification Guide within 6 months of initial assignment to an ACSE position.

2.8.3.1.3. Must be certified in all positions in the facility where ACSE support is provided.

2.8.3.2. Responsibilities will be established by the CSE.

2.8.4. **Assistant Chief, ATC Training and Standardization (ATSN):**

2.8.4.1. Qualifications.

2.8.4.1.1. Must hold AFSC 1C191, 1C171, or GS2152 and have performed ATC duties for at least 5 years.

2.8.4.1.2. Must complete the CSE and CATCT portions of the AFJQS 1C1X1-002 and the CSE and CATCT sections of AT-M-04, TSN Task Certification Guide, within 9 months of initial assignment to the ATSN position.

2.8.4.1.3. Must be certified in all positions, in the facility where assuming duties and maintain proficiency.

2.8.4.2. Responsibilities will be established by the TSN.

2.8.5. Air Traffic Control Simulation Equipment (ATCSE) Administrator.

2.8.5.1. CCTLRs must appoint individuals to serve as simulation equipment system administrator and assistants. When an automation work center exists at unit level, the CATCA and ATCSS personnel fill the responsibilities of administrator and assistants.

2.8.5.2. Courses for simulation systems evolve as new delivery capabilities are created. Contact MAJCOM Airfield Operations staff for current requirements.

2.8.5.3. Simulation administrators shall develop and maintain a simulation equipment continuity folder that is available to all users. Include the following minimum items:

2.8.5.3.1. Complete list of all simulation training scenarios. Include a description (objective) of each scenario.

2.8.5.3.2. Current copy of the ATCSE user's manual.

2.8.5.3.3. Worksheet or log to track hardware/software malfunctions.

2.8.5.3.4. Description of terminal labeling system.

2.8.5.3.5. All coordination documentation pertinent to the simulation system (i.e., emails, memorandums)

2.8.5.3.6. Appointment letters and duty description for assistants.

2.8.5.3.7. Other information pertinent to the simulation system.

2.8.5.3.8. The primary administrator will establish responsibilities for administrator assistants.

2.9. Facility Staffing Requirements. Staff each air traffic facility with the following minimums:

2.9.1. **Control tower, GCA or Radar Final Control (RFC):** One watch supervisor qualified 7-level or civilian equivalent (GS-2152) and one qualified controller (Fairford, Chievres, Moron and Soto Cano need one watch supervisor qualified controller only) or civilian equivalent (GS-2152). A Control Tower, GCA or RFC may operate with only one watch supervisor qualified 7-level or civilian equivalent (GS-2152) during mid-shifts or other periods of low traffic density (e.g. early dayshift, wing down days, holidays, etc.)

2.9.2. **Radar Approach Control (RAPCON):** One watch supervisor qualified 7-level or civilian equivalent (GS-2152) and two qualified controllers or civilian equivalent (GS-2152). RAPCON without PAR function, one watch supervisor qualified 7-level or civilian equivalent (GS-2152) and one qualified controller or civilian equivalent (GS-2152). All units must ensure additional controllers are on duty, as required, to cover periods of increased traffic activity.

2.9.3. The published MAJCOM supplement serves as the manpower authorization source documents IAW Air Force Manpower Standard (AFMS) 13E1, *Airfield Operations (AO) Flight.* All active duty MAJCOMs will supplement this AFI with base specific listings indicating the weekday and weekend operational positions/operating hours for each of their facilities, as follows:

2.9.3.1. Weekdays: Each position used in each facility and the number of hours those positions are to be staffed.

2.9.3.2. Weekends: Each position used in each facility and the number of hours those positions are to be staffed.

Example:

Canyon AFB

Weekdays	Tower	4 positions	16 hours
		2 positions	8 hours
	RAPCON	7 positions	12 hours
		5 positions	6 hours
		3 positions	6 hours
Weekends	Tower	3 positions	8 hours
		2 positions	8 hours
	RAPCON	5 positions	12 hours
		3 positions	4 hours

NOTE: "As Required", used in lieu of the information requested above, will not meet this requirement. AOF/CCs must notify the MAJCOM ATC staff immediately when these staffing requirements permanently change.

2.9.4. When unusual circumstances temporarily reduce air traffic density and/or complexity might dictate or allow control positions to be combined (e.g. weather related cancellation of wing flying; deployment of wing aircraft; scarcity of qualified ATC personnel, etc) the circumstances should be included as a note/memo for record on the AF 3616 at the beginning and again at the conclusion of the circumstantial anomaly (return to normal). This documentation should be retained for justifying authorization levels during subsequent manpower studies.

2.10. ATC Restrictions and Duty Limitations: In order to manage or operate a control position in a USAF ATC facility, individuals must comply with 14 CFR, Part 65, medical and ATC certification requirements. Applicable requirements have been incorporated into this AFI. Local procedures to ensure compliance with the following must be specified in an LOP.

2.10.1. **Medical Requirements:**

2.10.1.1. Military controllers must meet physical qualifications according to AFI 48-123*, Medical Examination and Medical Standards*. Civilian controllers must meet physical qualifications according to FAA medical certification standards (FAR Part 67).

2.10.1.2. Personnel may perform ATC duties even though they are taking innocuous medication, such as aspirin derivatives, vitamin preparations, nose drops and skin ointments.

2.10.1.3. In general, personnel ordinarily assigned to an operating position, including those who directly supervise within the facility, shall not use the types of drugs listed below within a 24-hour period before assumption of duty unless a waiver is obtained:

2.10.1.3.1. Sedatives.

2.10.1.3.2. Tranquilizers.

2.10.1.3.3. Any drug, such as but not limited to, anti-hypertensive agents or duodenal ulcer medications, which has an effect on the central autonomatic nervous system.

2.10.1.3.4. Any other drug and/or medication likely to affect the alertness, judgment, vision, equilibrium or state of consciousness.

2.10.1.4. Controllers shall not be assigned ATC duties for at least 8 hours after donating blood (formal flight surgeon restriction not required). Controllers shall coordinate with the CCTLR prior to giving blood to minimize impact on the duty schedule.

2.10.1.5. Controllers receiving medical or dental treatment or immunizations that could affect duty performance must be cleared by the appropriate medical authority before performing ATC duties. Military controllers must be cleared by the flight surgeon. Civilian controllers must be cleared by the medical authority that medically certifies them for ATC duties. Controllers will coordinate elective medical procedures with the CCTLR when there is a possibility of DNIC status resulting from the procedure.

2.10.1.6. Controllers must not perform ATC duties, nor directly supervise other controllers, while under the influence of alcohol (BAC of .04 or greater) or within 12 hours of consuming any amount of alcohol. If alcohol is used during off duty time, it should be conservative so an individual's mental alertness and ability to perform are not reduced by the after effects (hangover) of alcohol. Abstinence 12 hours before commencing ATC duties does not guarantee blood alcohol limits below .04 at the start of duty when large amounts are consumed.

2.10.2. **Hours of Duty.** To enhance flight safety, air traffic controller duty hours are restricted to ensure that controllers are not fatigued while performing ATC duty. CCTLRs must comply with the following guidance when scheduling air traffic controllers for duty.

2.10.2.1. A normal shift should be 8 hours and will not exceed 10 hours.

2.10.2.2. A scheduled off-duty period between shifts must occur. The duration of the off-duty period will be at least 12 hours for military and UTC tasked Department of Defense (DoD) civilian controllers, and at least 8 hours for Civilian DoD controllers.

2.10.2.3. When unforeseen events prevent staffing a facility as scheduled (emergency leaves, controllers in duty not involving controlling (DNIC) status, or other short-notice, unexpected loss of personnel), controllers may be recalled to ATC duty with only 8 hours between shifts.

2.10.2.4. Duty time begins with the first scheduled duty, either ATC or non-ATC. Once duty time begins, it is continuous. After 10 hours of continuous duty, controllers must not perform further ATC duty. A 12-hour uninterrupted break (8 hours when unforeseen events occur) must occur before the controller's next scheduled duty time requiring performance of ATC duties. Controllers must have at least 24 hours of uninterrupted, off duty time following 6 consecutive days of duty.

2.10.2.5. MAJCOM and Numbered Air Force (NAF) commanders may direct 12-hour surge shifts only at locations outside the National Airspace System (NAS), where required to support contingencies or exercises. When using surge shifts, controllers must have a 12-hour uninterrupted rest period between shifts.

2.10.2.6. Standby time is defined as: controllers are at their duty facility but not in the control room or tower cab. On-call time is defined as: controllers are in their residence awaiting direction

to report for duty. Consider standby time as ATC duty time. Do not consider on-call time or pre-duty familiarization time when computing ATC duty time.

2.10.3. **ATC Certification Requirements:**

2.10.3.1. Only personnel, to include host-nation and sister service (USN, USMC, etc.), who have successfully completed basic ATC technical training, may issue control instructions to aircraft or be assigned to an operating position.

2.10.3.2. Only qualified controllers or qualified apprentice controllers may work in a position without a trainer/monitor.

2.10.3.3. Only trainer certified and position certified controllers may train or monitor a trainee. Additionally, they should not train and must not monitor more than one trainee at a time. Trainers and monitors must maintain direct supervision while assigned to an operating position.

2.10.3.4. Unqualified controllers must not control emergency aircraft unless being formally evaluated for position certification or facility rating. They may control simulated emergencies.

2.10.3.5. Unqualified controllers, who have never previously held a GCA or RFC certification, must not monitor an instrument approach, nor perform as a final controller, when the ceiling is less than 1,000 feet, or the visibility is less than 3 miles, unless being formally evaluated for position certification or facility rating.

2.10.3.5.1. Unqualified controllers, regardless of previous experience, must not control emergency aircraft on radar final approach when IFR weather conditions (ceiling is less than 1,000 feet, or the visibility is less than 3 miles) exist, even when being formally evaluated.

2.10.3.5.2. CCTLRs will ensure procedures are established to notify pilots when controller qualification training is in progress in the PAR position. This notification requirement can be satisfied by inclusion on ATIS recording/broadcast. EXAMPLE: Controller training in progress during Radar Final.

PART 2

ATC PROCEDURES

Chapter 3

MANAGING ATC RECORDS, INQUIRIES AND DATA

3.1. ATC Forms. Unless otherwise indicated, maintain all forms as official facility records according to AFI 37-138, Records Disposition--Procedures and Responsibilities, or as directed below. Publish proper documentation and management of forms in the appropriate LOP.

3.1.1. If not already on requirement for FAA Forms or publications, order these through the base publications office or the nearest FAA facility.

3.1.2. Flight Progress Strips. Any FAA approved form, as determined by the type of printing system, may be used. Destroy after 6 months.

3.1.3. **AF Form 3616, Daily Record of Facility Operation.** Use this form to document all abnormal conditions and occurrences during each shift in the ATC facility. Entries made by other than the WS or SC must include the controller's operating initials. Facilities may initiate a new form at the beginning of each shift or use one form for a 24 hour period. This form may be computer generated, typed or hand written. Destroy after 6 months. CCTLRs shall ensure standardization and adherence to local directives by reviewing and initialing all AF Form 3616s.

3.1.3.1. WS or SC accepts responsibility for the facility by making an initial entry with the exact time and their initials in the remarks section. Document temporary absences during the shift unless you can immediately recall the controller to duty. Anytime a WS or SC is relieved, enter the first name initial and last name and indicate transfer of responsibility for the watch on the AF Form 3616 (i.e. "1310 J. GRAY OFF, RV ON AS WS"). Entering the name of the relieved WS or SC serves the same purpose as signing the certification statement at the top of the actual form. The WS or SC responsible for the watch, when the form is printed, must sign under the certification statement at the top of the form. Individuals may correct or reaccomplish entries before making a hard copy but must not change the entries of a previous WS or SC without their consent.

3.1.3.2. Use only authorized USAF, FAA and International Civil Aviation Organization (ICAO) abbreviations and phrase contractions. CCTLRs shall define/list approved local abbreviations in a facility operating instruction.

3.1.3.3. CCTLRs may authorize use of this form to log position times instead of AF Form 3626, Position Log. The CCTLR specifies which form to use and procedures for logging the position times. Use of either form will be consistent throughout the facility (use AF Form 3616 all the time or AF Form 3626 all the time).

3.1.4. **AF Form 3626, Position Log** . Use a single copy of this form to record individual responsible for each operating position. Controllers responsible for an operating position must place their operating initials on this form at the time they assume responsibility for the position. If assigning a trainee to a position, enter their initials on the form followed by the controller's operating initials. CCTLRs may specify multiple positions to use a single position log, each position using one side of the form (posi-

tions that are side by side, simulator positions, etc.). The WS position does not require a position log. Destroy after 6 months.

3.1.5. **AF Form 3624, Equipment Outage Log.** Use of this form is optional. Use it to record equipment outages or malfunctions and maintenance notifications. Use one form until filled, or as directed by the CCTLR. Transfer open entries when starting a new log. Facilities not using this form must record equipment outages on AF Form 3616. Destroy after 6 months.

3.1.6. **AF Form 3615, Required Data for Performing PAR Alignments.** Destroy when superseded. CCTLRs use this form to record PAR alignment voltage computations. Get correct voltages from maintenance personnel. Maintain one copy on file and provide extracts for controllers' use during PAR alignments.

3.1.7. **AF Form 3622, Air Traffic Control/Weather Certification and Rating Record**. Use this form to document limited weather certifications, ATC position certifications, and/or facility ratings. When transcribing information onto a new AF Form 3622, the CSE, ACSE, TSN, or CTO examiner must sign the examiner's signature block.

3.2. Recorded Records. The AOF/CC is the custodian for all recorded records.

3.2.1. Retain all voice recorder tapes/cassettes and data extraction disc recordings for a minimum of 15 days.

3.2.2. At facilities where the ATC automation system has the ability to record operations on the system, retain CDR media for a minimum of 15 days.

3.2.3. Protect CDR media, CDR hard-copy printouts and all other recorded records of aircraft mishaps, alleged deviations or hazardous air traffic reports (HATR) to the degree necessary to prevent unauthorized access. Locked receptacles (file cabinets, desks or safes) are adequate for storing this material. Requirements for protecting recorded information related to an aircraft mishap/incident are outlined in AFI 13-204, Functional Management of Airfield Operations.

3.3. Charts, Maps, Publications and Instruction Files.

3.3.1. Each ATC facility must maintain current Flight Information Publications (FLIP) documents pertinent to their area of responsibility. They must also display their area of control and depict the location (bearing and distance) and frequency of each NAVAID. Control towers and RFC facilities are exempt from displaying their area of control.

3.3.2. CCTLRs will provide a recent information file that may be a folder, clipboard, binder or an automated display.

3.3.3. CCTLRs will develop a suitable ready reference file or display for each operating position. Define, identify and maintain local procedures or instructions supplementing handbook material pertinent to an operating position. For example: the RAPCON departure position ready reference file or display would contain those portions of a letter of agreement, operations letter, etc., affecting departure procedures. CCTLRs determine what material is applicable to each operating position.

3.3.4. Control towers must maintain:

3.3.4.1. Current on-base crash grid maps (off-base, when available).

3.3.4.2. Airport diagram (runways, ramps, barrier or arresting gear, blind spots, overrun information, precision approach critical areas, etc.).

3.3.4.3. Visibility checkpoint chart(s) (day and night) developed IAW AFMAN 15-111, *Surface Weather Observations* and validated by the local weather station.

3.3.4.4. Current sunrise and sunset tables.

3.3.4.5. Photographs of Certified Tower Radar Display (CTRD) adjusted to standard presentation as defined by the facility CCTLR with correct video map alignment. Note: While Digital Terminal Automation Systems (DTAS) perform map alignment automatically, photographs are still required to validate CCTLR standard display presentation requirements.

3.3.4.6. Intersection takeoff diagram (at locations that authorize intersection takeoffs). Show the remaining runway length from each authorized departure intersection. Show all unauthorized departure intersections on the diagram. ***EXAMPLE***: /NO TAKEOFF/. Combine the intersection takeoff diagram with the airport diagram, when possible. Get measurements from an official source and record them on the diagram, reduced to the lower 50-foot increment. Publish intersection takeoff diagram in the base airfield operations instruction.

3.3.4.7. Diagram (video display, chart, etc) of the airfield lighting system. Quick reference checklist/table identifying the operation of the airfield lighting system and proper light settings.

3.3.5. Radar facilities must maintain:

3.3.5.1. A runway diagram for each airport served. As a minimum, include length and width, barrier or arresting gear, and overrun information.

3.3.5.2. A minimum vectoring altitude chart developed IAW AFI 11-230, *Instrument Procedures*.

3.3.5.3. Photographs of radar displays adjusted to standard presentation by operating position as defined by the facility CCTLR, showing correct video map alignment. Note: While Digital Terminal Automation Systems perform map alignment automatically, photographs are still required to validate CCTLR standard display presentation requirements.

3.3.5.4. A minimum IFR altitude chart (not required for GCA/RFC facilities) developed IAW AFI 11-230, Instrument Procedures.

3.3.5.5. Recommended altitudes for surveillance approaches developed IAW AFI 11-230, *Instrument Procedures*.

3.4. Information Regarding Aircraft Mishaps/Incidents. Do not disclose information related to aircraft mishaps/incidents except as outlined in AFI 13-204, *Functional Management of Airfield Operations.*

3.5. Military Air Traffic Activity Reports (RCS: HAF-XA[A]9352). AFFSA/XA serves as the focal point for gathering, compiling and disseminating air traffic activity reports. AFFSA/XA provides composite reports to HQ USAF, MAJCOMs and other appropriate agencies, upon request. This report is designated emergency status code C-2; continue reporting during emergency conditions, normal. Do not report by message during MINIMIZE. Reports are based on the fiscal year.

3.5.1. Submitting Reports:

3.5.1.1. Units: Input traffic count data into the Air Traffic Activity Reporting System (ATARS). Complete monthly data input NLT the third duty day of the following month. Data is automatically transmitted to HQ AFFSA on a monthly basis via File Transfer Protocol (FTP) internet connection.

3.5.1.2. MAJCOMs: Validate unit air traffic activity reporting.

3.5.2. Focal Points. MAJCOMs, in coordination with AFFSA/XA, approve counting activities in the "Special Use" sub-category. MAJCOMs act as a focal point for units to resolve traffic count information/content problems associated with ATARS. AFFSA/XA acts as the focal point for MAJCOMs to resolve traffic count information/content problems associated with ATARS.

3.5.3. Traffic Count Documentation. Units shall document daily, monthly and quarterly air traffic activities using the automated ATARS. AF Form 3623, *Daily Traffic Count*, may be used as a backup to the automated report program. Count air traffic activity in four 6-hour periods per day beginning at 0000 local. Control towers record a count of one for each aircraft in the formation regardless of the category, type or approach being conducted. When controlling a formation through instructions to a single aircraft within the flight, radar facilities will record a count of one for the flight for each category, type or approach being conducted. When formation flights are split into smaller formations or single aircraft, record a count of one for each formation or single aircraft for each category, type or approach being conducted. Count aircraft operations according to category, type of activity and type of approach.

3.5.3.1. Reports shall include the following information:

3.5.3.1.1. Separate categories for military, civil general aviation, air carrier/air taxi, and other (Tower Only) activity.

3.5.3.1.2. Separate sub-categories to count the type activity in each category.

3.5.3.1.3. IFR arrivals (Tower and Radar)

3.5.3.1.4. IFR departures (Tower and Radar, excluding RFC).

3.5.3.1.5. VFR local and VFR itinerant (Control Tower).

3.5.3.1.6. VFR service over-flights, PAR, ASR and ILS or MLS (RAPCON, GCA).

3.5.3.1.7. Special Use (Tower and Radar).

3.5.3.2. Categories (defined):

3.5.3.2.1. Military. Aircraft belonging to a nation's armed forces.

3.5.3.2.2. Civil General Aviation. Aircraft of any national registry operated by a private person, company, public company, government agency, or flying club not conducting air carrier or air taxi operations.

3.5.3.2.3. Air Carrier or Air Taxi. Aircraft conducting operations for compensation or hire (i.e., TWA, LOGAIR, Federal Express, and charter services such as Tango Cessna 97512).

3.5.3.2.4. Other. Operations wherein a VFR Tower receives a point-out or approval request (APREQ) for an IFR aircraft executing an instrument approach to another (adjacent) airport or as otherwise coordinated and approved for use by MAJCOM. This area constitutes a

non-countable category and values tabulated in this area will not affect the "Type Operations" sub-categories totals (i.e., IFR arrivals, IFR departures, etc.).

3.5.3.3. Type of Activity (defined):

3.5.3.3.1. IFR Departure. IFR or Special VFR departures and IFR, Special VFR or VFR aircraft flying an instrument approach that terminates in other than a full-stop landing and continues to receive IFR service.

3.5.3.3.2. IFR Arrival. IFR, Special VFR and VFR aircraft that fly an instrument, visual contact approach to an airport or point-in-space.

3.5.3.3.3. VFR Local (Tower Only). VFR aircraft that arrive or depart an airport served by the control tower.

3.5.3.3.4. VFR Itinerant (Tower Only). VFR aircraft that originate outside Class D airspace and fly through it without making an approach.

3.5.3.3.5. VFR Service (Radar Only). VFR aircraft that receive services but do not make an instrument approach.

3.5.3.3.6. Over-flight. IFR or Special VFR aircraft that originate outside the area of jurisdiction and fly through the area without flying an approach.

3.5.3.3.7. Special Use. Aircraft that conduct activities in airspace of defined dimensions identified by an area on the surface of the earth wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations that are not a part of those activities. Count activities conducted in alert areas, controlled firing areas, military operations areas, prohibited areas, restricted areas, and warning areas as special use operations. Any other area(s)/activity(ies) not listed requires MAJCOM approval.

3.5.3.4. Type of Approach:

3.5.3.4.1. PAR. Any aircraft that conducts a PAR approach.

3.5.3.4.2. ASR. Any aircraft that conducts an ASR approach.

3.5.3.4.3. ILS or MLS. Any aircraft that conducts an ILS or MLS approach.

3.5.3.4.4. TACAN. Any aircraft that conducts a TACAN approach.

3.6. Changes in ATC Mission.

3.6.1. MAJCOMs approve changes in the ATC mission of their units after coordination with HQ AFFSA/XA. This involves adjustments in manpower, equipment requirements, issues of operational impact, or military interface or services with civil or host nation operations. MAJCOMs coordinate changes in approach control services within the NAS, with the Air Force Representative (AFREP) at the appropriate FAA region.

3.6.2. When notified of a Mission Design Series (MDS) change, the OG and OSS Commander must ensure the following actions, as a minimum, are taken prior to the arrival of new aircraft:

3.6.2.1. Provide aircraft characteristics training to all controllers.

3.6.2.2. Develop radar simulator training scenarios for USAF radar controllers that emphasize integration of the new MDS aircraft operations with existing operations.

3.6.2.3. Develop static lab training or Tower Simulation System (TSS) scenarios for control tower controllers that emphasize interaction of new MDS aircraft operations with existing operations.

3.6.2.4. Develop comprehensive pictorial and written guidance on new MDS, aircraft patterns, profiles and procedures.

3.6.2.5. Ensure all controllers are exposed to new MDS aircraft through live training prior to full operations. The intent is to allow tower controllers to acquire a visual concept of profiles and procedures flown by new MDS aircraft.

3.6.2.6. Review TERPS criteria.

3.6.2.7. Update existing LOPs to include procedures for new MDS aircraft.

Chapter 4

OPERATING PROCEDURES

4.1. Hours of Operation.

4.1.1. **Routine Operations.** The CCTLR will set up procedures for opening and closing facilities that operate less than 24 hours a day, 7 days a week. Include these procedures in an LOP coordinated with the ATC facility that has IFR jurisdiction.

4.1.1.1. The OG/CC may authorize standby hours instead of staffing the GCA or RFC facility continuously. Outline response time requirements, periodic equipment checks, and notification methods in an LOP.

4.1.1.2. OG/CC may extend operating hours at bases where facilities are open less than 24 hours, as required, to meet short-term mission requirements. The CCTLR will ensure crew rest requirements and appropriate NOTAM action is taken.

4.1.1.3. DELETED

4.1.2. Extending/Curtailing Operating Hours. See AFI 13-204, Functional Management of Airfield Operations.

4.2. Consolidating Positions. Assign personnel to positions as required by activity, equipment and facility function. Consolidate positions only after considering activity and qualifications of the personnel involved (see paragraph **2.9.**). Do not combine Local Control with any other operating position, except during periods of authorized single-controller operations. CCTLRs must define procedures for consolidating positions in an LOP.

4.3. Operating Initials. CCTLRs will assign two-letter operating initials to controllers in order to identify them for record purposes. Unless signatures are specifically requested, controllers use assigned operating initials for all operating forms, interphone contacts, marking of recorder tapes, cassettes, digital audio tapes (DAT), and other records. The CCTLR will maintain a listing of controller initials. (Duty rosters with name and initials can meet this requirement).

4.4. Pre-Duty Familiarization. CCTLRs will establish an LOP outlining requirements for pre-duty familiarization briefings and procedures that provide for smooth transition from one crew to the next. Procedures should allow for continuity of ATC services without interruption. Consider the following areas, if relevant to facility operations:

4.4.1. Pre-Duty Familiarization:

4.4.1.1. Status Information Areas/Boards

4.4.1.2. Equipment; i.e., Navaids, Radar(s), Radios, Automated Weather Dissemination Systems, etc.

4.4.1.3. Airport Conditions/Status

4.4.1.4. Airport Activities; i.e., snow removal, vehicles on runway, etc.

4.4.1.5. Altimeter/Trends

4.4.1.6. Weather/Trends

4.4.1.7. Special Activities; i.e., restricted/warning areas in use, air shows, flight checks, new procedures, etc.

4.4.1.8. Special Instructions/Restrictions; i.e., due to adjacent position training, non-standard staffing/configuration, etc.

4.4.1.9. Facility Staffing/Training Assignments

4.4.1.10. Training in Progress

4.4.1.11. Use of position relief checklist

4.4.2. CCTLRs may increase the number of items and/or the level of detail of the pre-duty briefing and the position relief checklist as deemed necessary.

4.5. Wind Information.

4.5.1. Issue surface wind when clearing aircraft to takeoff, when clearing an aircraft to land, touch-and-go, stop-and-go, for low approach, or for the option. Restate the landing runway whenever there is a possibility of a conflict with another aircraft that is using or is planning to use another runway.

PHRASEOLOGY - WIND (surface wind in direction and velocity). CLEARED FOR TAKEOFF/ CLEARED TO LAND.

4.5.2. Issue wind direction and speed from wind displays. When wind displays are unavailable, issue wind information contained in the latest weather sequence, prefaced with the term ESTIMATED. ***EXAMPLE***: WIND ESTIMATED TWO FOUR ZERO AT ONE ZERO. If wind speed fluctuations are observed, issue wind gusts that exceed the average wind speed by five knots or more. Always include wind direction, and both the predominant wind speed and upper extreme of the fluctuation. ***EXAMPLE***: WIND TWO TWO ZERO AT ONE-FIVE, GUST TWO-SEVEN. For FMQ-13 indicators, use the GUSTS display to obtain wind gusts. Issue GUST SPREAD (difference between wind speed lull and wind speed peak during preceding one minute) <u>only</u> if specifically requested by the pilot. For FMQ-13 indicators, use the GUSTS SPREAD display to obtain this value. ***EXAMPLE***: GUST SPREAD TWO-THREE."

4.5.3. When issuing variable wind information, use variable wind criteria (changes in wind direction of 60 degrees or more when the wind speed is 6 knots or more). *EXAMPLE*: WIND THREE ONE ZERO AT ONE FIVE, VARIABLE BETWEEN TWO SEVEN ZERO AND THREE FOUR ZERO. The OG/CC may waive the requirement to issue variable winds, for reasons of operational advantage or pattern efficiency, to wing aircraft. If waived, document procedures in the base Airfield Operations Instruction .

4.5.4. Wind sensors shall be selected for the approach end of runway unless operational advantage will result from other setting. Advise pilot if reported winds are from other than the approach end of runway. This may be accomplished by including information on the ATIS broadcast and pilots advise they have current ATIS information. Define procedures in a LOP.

4.6. Use of Communications. Use ATC frequencies for the transmission of authorized ATC instructions and information.

4.6.1. Personnel must not transmit or permit the transmission of:

4.6.1.1. Non-ATC instructions and information, except as in paragraph **4.6.2.** and **4.6.3.** below.

4.6.1.2. Obscene, indecent or profane language.

4.6.1.3. False or deceptive communications.

4.6.1.4. Willful or malicious interference with other communications.

4.6.1.5. Superfluous or unauthorized transmissions including remarks of a personal nature.

4.6.2. Occasionally, it is necessary to transmit a message not directly associated with ATC, but pertains to safety of aircraft operation or preserving life or property. In these emergency situations, controllers or non-ATC individuals may transmit such a message. A non-ATC person may transmit this kind of message if:

4.6.2.1. They coordinate transmissions with ATC facilities prior to transmitting.

4.6.2.2. They do not issue ATC instructions.

4.6.2.3. Controllers can interrupt transmissions to continue ATC services.

4.6.3. ATC facilities relay essential non-ATC instructions to aircraft if no other source of communications is available and transmissions do not interfere with the controller's responsibility to prevent collision between aircraft.

4.6.3.1. Commanders must ensure maximum use of pilot-to-dispatch, operations center, or similar facilities to relay non-ATC information.

4.6.3.2. Relaying distinguished visitor (DV) information is necessary for military protocol. An ATC facility with direct landline capability may relay DV information to a single agency (base operations, operations center or command post). The ATC facility notifies the agency only once. This duty is secondary to providing ATC services.

4.6.3.3. When an unauthorized agency uses an ATC frequency, make an entry on the AF Form 3616. The AOF/CC will advise the proper base official for appropriate action.

4.6.4. Unless safety of flight or necessity for the control of air traffic dictates otherwise, controllers should avoid transmitting to aircraft in the following critical phases of flight: short final, touchdown, landing roll, departure roll, initial climbout.

4.7. Landline Operations. ATC facilities must have direct and reliable landline communications with adjacent terminal and enroute facilities and specified base agencies. Each telephone line and landline will terminate in a communications key system in the facility, if possible. A direct landline is a dedicated telephone circuit that terminates in two facilities only, with no access available by another facility. Two-digit ring lines between enroute and terminal facilities meet the above criteria. *NOTE:* The optimum configuration between ATC facilities is a direct ring line, a single button ring line or a "shout" line.

4.8. Alternate Communications. CCTLRs must set up interim or alternate communications procedures to use if primary radios or landlines fail. Specify alternate communications procedures in a LOP.

4.9. Radar and Tower Coordination.

4.9.1. To ensure proper sequencing of all arriving IFR radar traffic, define radar and tower coordination procedures in a LOP.

4.9.1.1. Establishing Local Procedures and Requirements:

4.9.1.1.1. The distances from touchdown or end of runway specified below for the amber and green lights are minimum. Adjust distances outward, if necessary, to meet local operating conditions in an LOP.

4.9.1.1.2. Do not modify the meaning or use of the red light.

4.9.1.1.3. Define multiple approach procedures, where required.

4.9.1.2. Wake Turbulence Separation. When mixing aircraft operating in the VFR traffic pattern with IFR/VFR arrivals, tower controllers must ensure appropriate wake turbulence separation exists, or will exist, before turning an aircraft inside the IFR/VFR aircraft on final. Outline these procedures in an LOP.

4.9.2. At locations without an installed radar and tower coordination system, establish procedures that ensure tower controllers receive information in accordance with paragraph **4.9.3.1.1.**

4.9.3. If available, use an installed radar and tower coordination system to coordinate all arriving IFR radar traffic as follows:

4.9.3.1. Flashing White Light. An arriving aircraft has reached a specified point from the runway (normally 15 flying miles):

4.9.3.1.1. Radar controller activates the flashing white light and furnishes the tower controller with aircraft identification, type, position, type of approach, and type of landing. State range if other than specified in the LOP. Facility managers may reduce or modify the information specified to meet operational needs.

4.9.3.1.2. Tower controller steadies the white light acknowledging receipt of arrival information.

4.9.3.1.3. Unless local procedures require radar monitoring using PAR equipment, CCTLRs may develop procedures that allow the aircraft to contact the tower after the tower controller steadies the white light.

4.9.3.2. Flashing Amber Light. An aircraft is (minimum) 7 miles from touchdown or end of runway and the radar controller is requesting tower approval for the aircraft to continue:

4.9.3.2.1. Radar controller activates the flashing amber light. State range if other than specified in the LOP.

4.9.3.2.2. Tower controller steadies the amber light to acknowledge the position of the aircraft and to approve continuation of the approach to 3 miles.

4.9.3.3. Flashing Green Light. An aircraft is (minimum) 4 miles from touchdown or end of runway and the radar controller is requesting tower clearance for landing, touch-and-go, option, stop and go, or low approach.

4.9.3.3.1. Radar controller activates the flashing green light, verbally stating type landing and operating position. State range if other than specified in the LOP.

4.9.3.3.2. Tower controller steadies the green light and issues a verbal clearance to approve a landing, touch-and-go, option, stop and go, or low approach when the aircraft is (minimum) 4 miles, but not closer than 3 miles, from touchdown or end of runway. The clearance includes field and traffic information if appropriate, and altitude restrictions for a low approach, if required.

4.9.3.3.3. Radar controller relays the tower clearance verbatim (may simultaneously transmit the clearance to the aircraft and tower).

4.9.3.4. Red Light. A flashing red light cancels the clearance for aircraft on radar final approach. Unless otherwise stated, it applies only to the first aircraft on radar final approach.

4.9.3.4.1. Tower controller activates the flashing red light when denying or canceling a clearance and furnishes a reason.

4.9.3.4.2. Radar controller steadies the red light after issuing the clearance denial or cancellation to the aircraft (may accomplish by steadying the red light simultaneously with the transmission of go-around instructions).

4.9.3.4.3. The radar controller may activate the red light and will verbally advise the tower of a radar-initiated go-around for the first aircraft on final. Tower steadies the flashing red light indicating receipt of the radar-initiated go-around.

4.9.4. **Use of QUICK LOOK Functions.** QUICK LOOK functions may be used to coordinate aircraft arrivals, at locations where data from a system common to the servicing radar approach control facility and the control tower is presented on a Certified Tower Radar Display (CTRD), only if operational benefits will be accrued. In addition to the data on the CTRD, required keyboard capabilities to effect needed coordination must also be installed.

4.9.4.1. QUICK LOOK coordination, without some means of ensuring tower actively acknowledges inbound aircraft, is not recommended at locations with high density traffic and/or diverse or unpredictable arrival patterns. Determination of whether or not quick look is operationally beneficial is best decided at the unit level. USAF VFR towers who receive approach control service from FAA facilities and use automation for transferring control of aircraft, will not enter into any agreement unless the agreement stipulates an alternate means of transferring control of aircraft (i.e. steadying the flash on an automated handoff or verbal acknowledgement via landline) to use when the CTRD is not operational or when applying the provisions of para. 4.9.4.2.5. Examples of active acceptance include steadying the flash on an automated handoff or verbal acknowledgement via landline.

4.9.4.2. The use of automated handoffs in this context constitutes a transfer of information only and shall not be considered a radar handoff. When QUICK LOOK is used to coordinate arrivals, the LOP governing tower/radar coordination procedures must specify:

4.9.4.2.1. Procedures for data transfer between the radar facility and the tower cab.

4.9.4.2.2. Communications changeover points.

4.9.4.2.3. Transfer of control points.

4.9.4.2.4. Hours or conditions under which facility policy prohibits use of these functions.

4.9.4.2.5. The authority of the local controller or tower watch supervisor to determine whether use of the QUICK LOOK function is satisfactory or some other means of arrival coordination is required.

4.9.4.3. Factors to be considered by the tower in determining whether to use or prohibit the use of the QUICK LOOK function include, but are not limited to:

4.9.4.3.1. Light on the face of the CTRD.

4.9.4.3.2. Traffic volume and diversity.

4.9.4.3.3. The number of controllers available in the tower.

4.9.4.3.4. Other duties requiring the controller's attention.

4.9.5. **Rolling/boundary notification.** Automation is an authorized/approved method to establish nonverbal rolling/ boundary notification for each departing aircraft.

4.9.6. Cancel automatic releases when the official weather for the airport is reported as less than 1000/3, including when Tower visibility is less than 3. Include these procedures in an LOP.

4.10. Minimum Distance Without Final Clearance. Do not continue an approach closer than 3 miles from touchdown (PAR) or 3 miles from end of runway (ASR) without clearance from the tower controller. The minimum distance also applies to radar-monitored approaches. These requirements must be contained in an LOP between the tower and the servicing radar facility.

4.11. Opposite Direction Traffic. Define opposite direction procedures in the base airfield operations instruction; and LOA if the FAA provides radar services. All coordination will include the phrase "OPPOSITE DIRECTION DEPARTURE OR ARRIVAL, RUNWAY (NUMBER). "

4.11.1. Locations that require opposite direction traffic must define minimum opposite direction cut-off points, distances, or fixes for the following operations:

4.11.1.1. Arrival versus arrival

4.11.1.2. Arrival versus departure, low approach, etc.

4.11.2. Consider all airfield conditions that may affect opposite direction operations.

4.12. Practice Instrument Approaches. VFR aircraft practicing instrument approaches at the approach control's primary airport shall be provided IFR separation. The primary airport is the airport from which approach control service is provided. (See FAAO 7110.65, Chapter 4, Section 8, Approach Clearance Procedures for details).

4.13. Clearance Delivery. The clearance delivery function must be performed by a controller not actively controlling airborne traffic. ***EXCEPTION*:** Clearance delivery may be operated by a controller actively controlling aircraft when facilities are staffed by a single seven-level or civilian equivalent (GS-2152) in accordance with paragraph **2.9.**. A clearance delivery position in a RAPCON must have a discrete frequency dedicated to clearance delivery and must not be keyed simultaneously with other frequencies.

4.14. Emergency Frequencies. ATC facilities, except GCA and RFC, must have transmit and receive capability on emergency frequencies 121.5 and 243.0 MHz. Continuously monitor the emergency frequencies during operational hours. When more than one USAF ATC facility shares the emergency radio equipment, the tower must have override capability. Tower should have override capability on emergency radio equipment shared with FAA ATC facilities. ATC facilities must have an override capability on emergency radio equipment shared by non-ATC agencies.

4.14.1. ATC personnel will normally handle an unscheduled personnel, emergency or crash locator beacon signal, as an emergency, regardless of duration. The Wing Commander (WG/CC) may require a lesser level of notification and response and direct ATC not to activate the primary crash alarm system (PCAS). The WG/CC must ensure notification and response procedures are established. If controllers do not activate the PCAS, the ATC facility notifies a single named, base agency and the ARTCC or appropriate host nation equivalent. Define procedures in an LOP.

4.14.2. Operational testing of a personnel, emergency, or crash locator beacon may not require a response when it is conducted within the first five minutes of the hour and is no longer than three audio sweeps.

4.15. Notice to Airmen (NOTAM). The AOF/CC identifies a single ATC facility, in writing, as the NOTAM monitor facility. The NOTAM monitor facility ensures appropriate NOTAMS are sent to protect airspace when the airfield will be open outside of published airfield operating hours, to advise of non-published airfield closures and to ensure notification of ATCALS interruptions and malfunctions.

4.16. Interruptions to ATCALS. The commander responsible for ATCALS must ensure ATCALS are available to support the flying mission. Maintenance personnel response times/actions must be established in an LOP. Preventive maintenance (PM) on ATCALS ensures the equipment performs at an optimum level. The commander responsible for ATCALS maintenance, subject to OG/CC approval, specifies a recurring PM schedule. When developing a standardized, recurring PM schedule, consider safety, local and adjacent base military and civil flying support requirements, current and forecasted weather, equipment reliability, redundancy and maintenance requirements. Airfield management submits the base PM schedule for inclusion in flight information publications (FLIPs). The AOF/CC establishes procedures for reporting and coordinating ATCALS interruptions and malfunctions in an LOP. ATCALS electromagnetic interference should be reported according to AFI 10-707, *Spectrum Interference Resolution Program*.

4.16.1. Before turning a facility over for PM during other than published maintenance periods:

4.16.1.1. Maintenance workers must request approval for the work far enough in advance to allow for coordination.

4.16.1.2. The AOF/CC or designated representative coordinates the downtime of a facility and notifies maintenance of approval/disapproval.

4.16.1.2.1. Before approving downtime, obtain approval from the OG/CC and notify the Airfield Manager for appropriate NOTAM/airfield advisory action. Schedule no more than one ATCALS facility for maintenance at a time. *EXCEPTION:* Multiple ILS facilities installed at opposite ends of the same runway.

4.16.1.2.2. When an ATCALS component is part of the NAS, coordinate with the appropriate ARTCC, FAA terminal radar control (TRACON), and flight service station (FSS). The coordinating agency will ensure appropriate NOTAM action is taken.

4.16.1.2.3. At multiple base complexes, coordinate PM schedules so all bases do not remove similar ATCALS from service at the same time.

4.16.1.2.4. Request planned maintenance shutdown of ATCALS during periods of least activity, including nighttime, as much as possible.

4.16.2. Maintenance workers must coordinate with the affected ATC WS/SC before taking ATCALS off the air. Define procedures in an LOP.

4.16.3. WS/SC must not allow maintenance personnel to perform work that disrupts or affects the signal of a NAVAID, unless the facility is removed from service and the identification feature is turned off.

4.17. Monitoring Navigational Aid Equipment. An internal monitor is an integral part of each NAVAID that automatically transfers transmitters or shuts down the NAVAID when its performance falls below established tolerances. Each NAVAID used for instrument flight must be monitored.

4.17.1. Designate one ATC facility to be responsible for monitoring NAVAID status and install a remote status indicator (RSI) for each NAVAID. The RSI displays the operational status of each NAVAID. The ATC facility monitoring the RSI informs other facilities of NAVAID status changes.

4.17.2. When an RSI is inoperative or the RSI monitoring facility is unmanned, continue to use NAVAIDs equipped with an internal monitor as long as pilot or maintenance reports show the NAVAID is operating normally.

4.17.3. For category (CAT) II ILS facilities, when the RSI fails or the facility with the RSI is not staffed, even though the ILS is functioning properly, downgrade the ILS to CAT I status. Units affected by this requirement should specify this requirement in an appropriate LOP.

4.17.4. **Snow Effects on ILS Glide Slopes:** Snow accumulation must be removed from specific areas around the glide slope long before causing the glide angle to go out of tolerance. Follow procedures outlined in the base airfield operations instruction and Snow and Ice Control Plan to ensure the snow does not impact the glide slope signal. Advise Airfield Management and/or ATCALS Maintenance, as appropriate, when snow accumulation or drifting on the airfield may impact system reliability. Remove the system from service when advised by ATCALS Maintenance that accumulation has exceeded technical limits IAW maintenance T.O.s, when the RSI remains in alarm after attempted resets, or when system anomalies are reported by pilots on final, IAW FAAO 7110.65. The OG/CC determines if a local flyability check and/or special flight inspection is required before returning the system to service or if pilots continue to report anomalies in the signal.

4.17.5. At locations where NAVAIDs operate less than 24-hours daily, publish NAVAID operating hours in appropriate flight information publications (FLIP).

4.18. Auxiliary Power for ATCALS Facilities. The OG/CC will determine which ATCALS and ATC communications facilities require the installation and operation of auxiliary backup power generators and automatic start and transfer systems to ensure long term, seamless operation in the event of a commercial power failure.

4.18.1. The following facilities should be considered:

4.18.1.1. Air navigational aids.

4.18.1.2. Radar facilities, RAPCONs and ATC Towers.

4.18.1.3. Transmitter or Receiver sites and Ground Air Transmitter Receiver (GATR) sites.

4.18.2. At a minimum, ensure all facilities included in the NAS are in compliance with FAA Order 6950.2, *Electrical Power Policy Implementation at National Airspace System Facilities*.

4.18.3. Include auxiliary power requirements in the base airfield operations instruction.

4.18.4. When automatic start and transfer capability is not available or the OG/CC has determined commercial or base power is unreliable to support critical mission requirements and aircraft launch and recovery, units should consider placing ATCALS facilities on backup generator power for impending severe weather conditions.

4.18.5. Include auxiliary power procedures for all ATCALS facilities in an LOP. Consider all available auxiliary power sources (generators, uninterruptible power sources (UPS) and battery capability), base civil engineering support (maintenance, testing, response times and restorable priorities for failed auxiliary power sources), and user responsibilities.

4.18.5.1. Maintenance personnel must get approval from the WS/SC before transferring power at a control tower or radar facility.

4.18.5.2. Maintenance personnel must get approval from the facility responsible for monitoring NAVAID status before transferring power at a NAVAID and from affected ATC facilities before transferring power at transmitter or receiver sites.

4.19. Alternate ATC Facilities. The OG/CC determines if there is a need for alternate ATC facilities to sustain ATC services during emergency conditions. Where a need has been established, define transition procedures and any restrictions on flight operations or vehicle movement due to alternate ATC facility limitations in an LOP. The following are requirements for alternate ATC facility operations:

4.19.1. UHF/VHF transmitters and receivers

4.19.2. Landline communications

4.19.3. FM transmitters and receivers

4.19.4. Control of airfield lighting

4.19.5. Applicable publications

4.19.6. NAVAID monitoring

4.19.7. Recording Equipment (If capability exists)

4.19.8. Access to pertinent airfield information (NOTAMs, weather, etc.)

4.20. Precision Approach Critical Areas. The OG/CC will identify precision approach critical areas in the base airfield operations instruction, ensure the appropriate signs/markings are posted, and develop an LOP to ensure critical areas are protected, as appropriate. The following areas must be protected to avoid signal interference: The localizer (**Figure 4.1.**), the glide slope (**Figure 4.2.**) and ILS CAT II/PAR touchdown area (**Figure 4.3.**), MMLS azimuth critical area (**Figure 4.4.**) and MMLS elevation critical area (**Figure 4.5.**). Establish touchdown areas only when the height above touchdown (HAT) is less than 200 feet for either an ILS/MMLS or PAR approach. An instrument hold line prevents vehicles and aircraft

from violating these areas during low weather operations. Markings, signs, and lighting requirements are in AFMAN 32-1076 and AFI 32-1042.

4.20.1. **CAT I and II ILS Localizer Critical Areas (Figure 4.1.).**

4.20.1.1. When the reported ceiling is less than 800 feet and/or the visibility is less than 2 miles, restrict all aircraft and vehicle operations in the localizer critical area. Do not permit vehicles or aircraft to transit the localizer critical area when an aircraft on the ILS approach is inside the final approach fix (FAF). ***EXCEPTION:*** A preceding aircraft, approaching the same runway or another runway, may pass through the area while landing, departing, or exiting the runway; do not allow aircraft to stop within the critical area.

4.20.1.2. When the reported ceiling is less than 200 feet and/or RVR 2,000 or less (1/2 mile if no RVR) do not authorize vehicle or aircraft operations in or over the area when an arriving aircraft is inside 1 NM from touchdown (TD).

4.20.2. **CAT I and II ILS Glide Slope Critical Areas (Figure 4.2. and Figure 4.3.).**

4.20.2.1. When the reported ceiling is less than 800 feet and/or visibility less than 2 miles, but at or above 200 feet and/or visibility at or above 1/2 mile (RVR 2,400), restrict all aircraft larger than fighter type size. Do not permit these aircraft to taxi beyond the instrument hold line when an aircraft executing an ILS/MMLS approach is inside the FAF.

4.20.2.2. When the reported ceiling is less than 800 feet and/or visibility less than 2 miles, restrict all vehicles. ***NOTE:*** Vehicles escorting (i.e., launch essential vehicle, mission support vehicle and end of runway (EOR) vehicle) the fighter type size aircraft under the conditions of paragraph **4.20.2.1.** are authorized to proceed into the glideslope critical area with the aircraft (aircraft tows are not authorized). Do not permit vehicles to proceed beyond the instrument hold line when an aircraft executing an ILS/MMLS approach is inside the FAF, unless the arriving aircraft has reported the runway in sight or is circling to land on another runway.

4.20.2.3. When the reported ceiling is less than 200 feet and/or visibility less than 1/2 mile (RVR 2,400), restrict all aircraft and vehicles. Do not permit aircraft to taxi or vehicles to proceed beyond the instrument hold line when an aircraft executing an ILS/MMLS approach is inside the FAF.

4.20.3. **PAR Touchdown Areas (Figure 4.3.).** When the reported ceiling is less than 200 feet and/or the RVR is 2,000 or less (1/2 mile visibility if no RVR), do not authorize vehicles or aircraft in the PAR touchdown area when an aircraft conducting an approach or missed approach is inside the middle mark (MM) or 1 NM from TD if no MM.

4.20.4. **MMLS Azimuth Critical Area (Figure 4.4.).**

4.20.4.1. When the reported ceiling is less than 800 feet and/or the visibility is less than 2 miles, restrict all aircraft and vehicle operations in the azimuth critical area. Do not permit vehicles or aircraft to transit the azimuth critical area when an aircraft on the MMLS approach is inside the final approach fix (FAF). ***EXCEPTION:*** A preceding aircraft, approaching the same runway or another runway, may pass through the area while landing, departing, or exiting the runway; do not allow aircraft to stop within the critical area.

4.20.4.2. When the reported ceiling is less than 200 feet and/or RVR 2,000 or less (1/2 mile if no RVR) do not authorize vehicle or aircraft operations in or over the area when an arriving aircraft is inside 1 NM from touchdown (TD).

4.20.5. **MMLS Elevation Critical Area (Figure 4.5.).**

4.20.5.1. When the reported ceiling is less than 800 feet and/or visibility less than 2 miles, but at or above 200 feet and/or visibility at or above 1/2 mile (RVR 2,400), restrict all aircraft larger than fighter type size. Do not permit these aircraft to taxi beyond the instrument hold line when an aircraft executing an MMLS approach is inside the FAF.

4.20.5.2. When the reported ceiling is less than 800 feet and/or visibility less than 2 miles, restrict all vehicles. ***NOTE:*** Vehicles escorting (i.e., launch essential vehicle, mission support vehicle and end of runway (EOR) vehicle) the fighter type size aircraft under the conditions of paragraph **4.20.5.1.** are authorized to proceed into the elevation critical area with the aircraft (aircraft tows are not authorized). Do not permit vehicles to proceed beyond the instrument hold line when an aircraft executing an MMLS approach is inside the FAF, unless the arriving aircraft has reported the runway in sight or is circling to land on another runway.

4.20.5.3. When the reported ceiling is less than 200 feet and/or visibility less than 1/2 mile (RVR 2,400), restrict all aircraft and vehicles. Do not permit aircraft to taxi or vehicles to proceed beyond the instrument hold line when an aircraft executing an MMLS approach is inside the FAF.

4.20.6. **Criteria for Protecting Critical Area.** The DoD is authorized to define criteria for protection of precision approach critical areas at military controlled airports, which would be applied to all aircraft operating at that military controlled airport. This includes both civil and military aircraft operations.

4.20.6.1. Protection of the critical area by enforcing control of the movement area is essential to flight safety. Units should assess current operations to ensure protection of precision approach capability. Unit level assessment should consist of the following items:

4.20.6.1.1. Evaluate the existing critical area's footprint against available options and select the criteria that best suits wing operational needs, using the following guidelines:

4.20.6.1.1.1. USAF criteria or FAA criteria described in FAAO 6750.16, *Siting Criteria for Instrument Landing System,* may be applied at any USAF location. NATO criteria described in APATC-1 Version A may be applied at any NATO base. ICAO criteria described in ICAO Attachment C to Part I of Annex 10 may be applied at any overseas location.

4.20.6.1.1.2. Application of the footprint is system dependent, not airfield dependent. For example, units may use FAA criteria for one ILS system of a runway and USAF criteria for the other ILS system, if that configuration best suits the needs of a particular location. However, the same criteria must be applied to both the localizer and glideslope of a specific system.

4.20.6.1.2. If the footprint of the selected criteria contains a stationary object (i.e. fence, building), ensure the unit has a current flight inspection report on file conducted since the object was in place. If interference is not detected, no further action is required. If interference is detected, the object must be removed or the signal will not be valid under specified weather conditions.

4.20.6.1.3. If the footprint of the selected criteria contains a non-stationary object(s), one or more of the following actions must be taken:

4.20.6.1.3.1. Establish procedural guidance to control/prohibit operations in the movement area when required to protect the signal for aircraft on final.

4.20.6.1.3.2. At locations where perimeter/access roads penetrate the critical area, install stop lights (or an equivalent device) to prevent intrusion of vehicles not in direct radio contact with the tower, when inbound aircraft on the approach require a protected signal.

4.20.6.1.3.3. Use alternate approach capability (i.e., PAR) when feasible and restrict use of the ILS/MMLS when weather conditions dictate protection of critical areas.

4.20.6.1.4. MAJCOM/DOs are granted waiver authority for protection of critical areas at USAF locations. This authority may be delegated to respective units, but only to wing commanders. Use the following guidelines:

4.20.6.1.4.1. Units must conduct an operational risk assessment of factors involved (i.e., weather criteria, mission necessity, alternative approaches available, reduced level of safety, standardization of air traffic control services) when allowing movement in the critical areas during periods when weather conditions dictate the area be controlled. Unit risk assessments must specifically address both military and civilian aircraft operations at the base. Risk assessments must be included as part of any waiver request package submitted to the MAJCOM/DO or designated representative.

4.20.6.1.4.2. Upon approval, procedures for implementing waivers must be briefed at the base airfield operations board and published in the base airfield operations instruction. Appropriate entries must be published in DoD FLIP products to ensure aircrews are aware of waivered criteria.

Figure 4.1. Localizer Critical Area. This rectangular area extends from the localizer transmitting antenna 2,000 feet toward the approach end of the runway and 150 feet on each side of the runway centerline. It includes a 50-feet extension behind the localizer antenna.

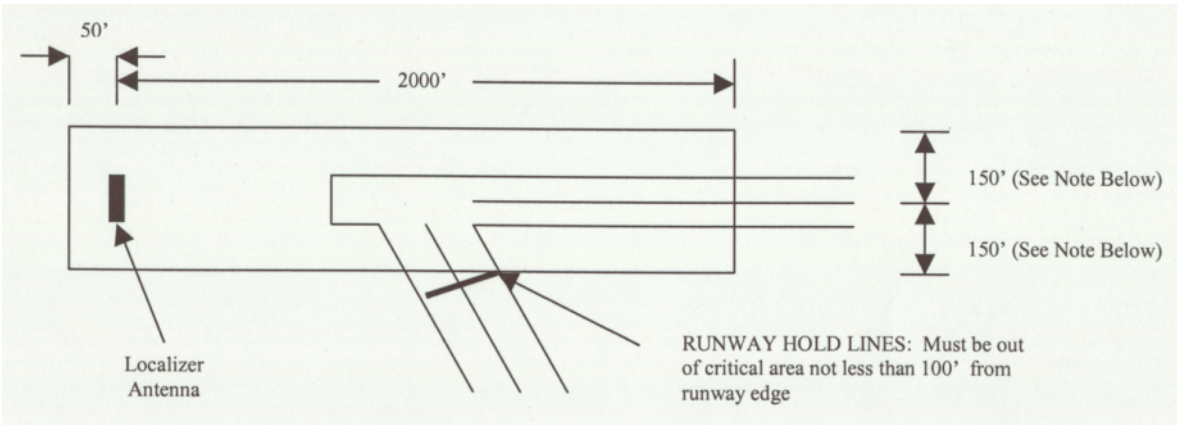


Figure 4.2. Glide Slope Critical Area. This is a fan-shaped area that extends from the glideslope antenna 1,300 feet toward the approach end of the runway or to the end of the runway, whichever is greater. It covers an area 30 degrees each side of a line drawn through the glideslope antenna and parallel to the runway centerline.

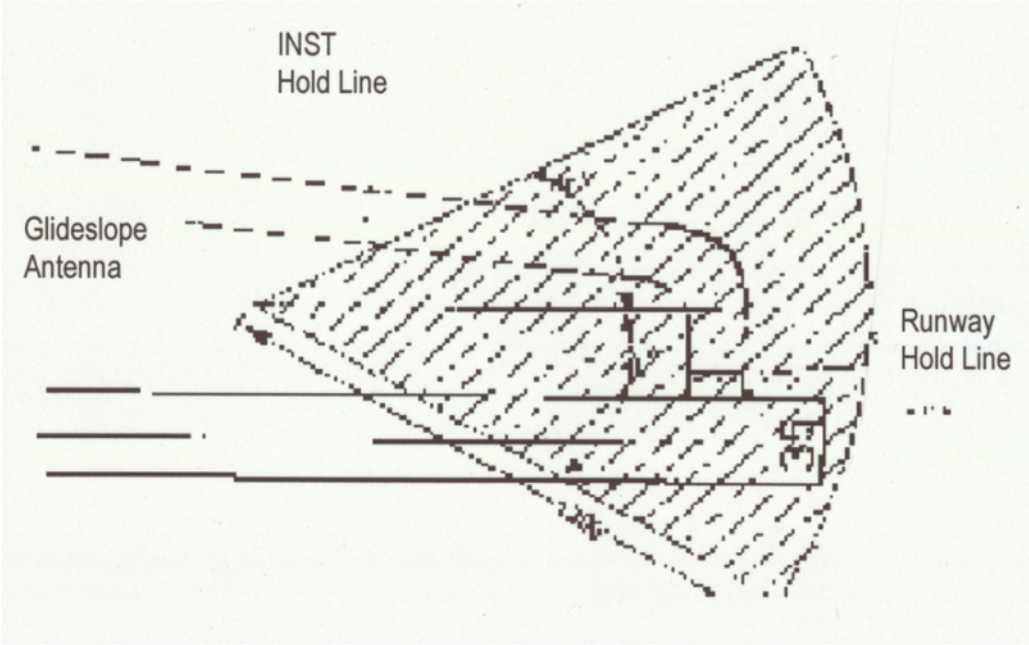


Figure 4.3. Touchdown Area. This is a 3,200 foot long by 1,000 foot wide rectangle centered on the runway centerline. It begins 200 feet outward from the landing threshold (normal or displaced) and extends 3,200 feet in the direction of landing. The instrument hold line must not be placed closer than 500 feet from the runway centerline when the Touchdown Area applies.

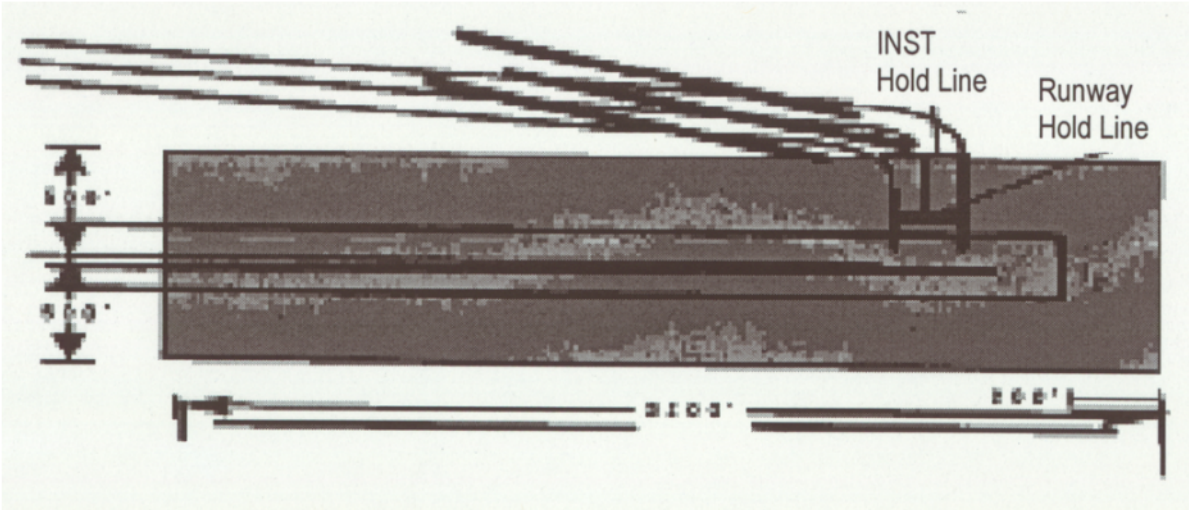


Figure 4.4. MMLS Azimuth Critical Areas.

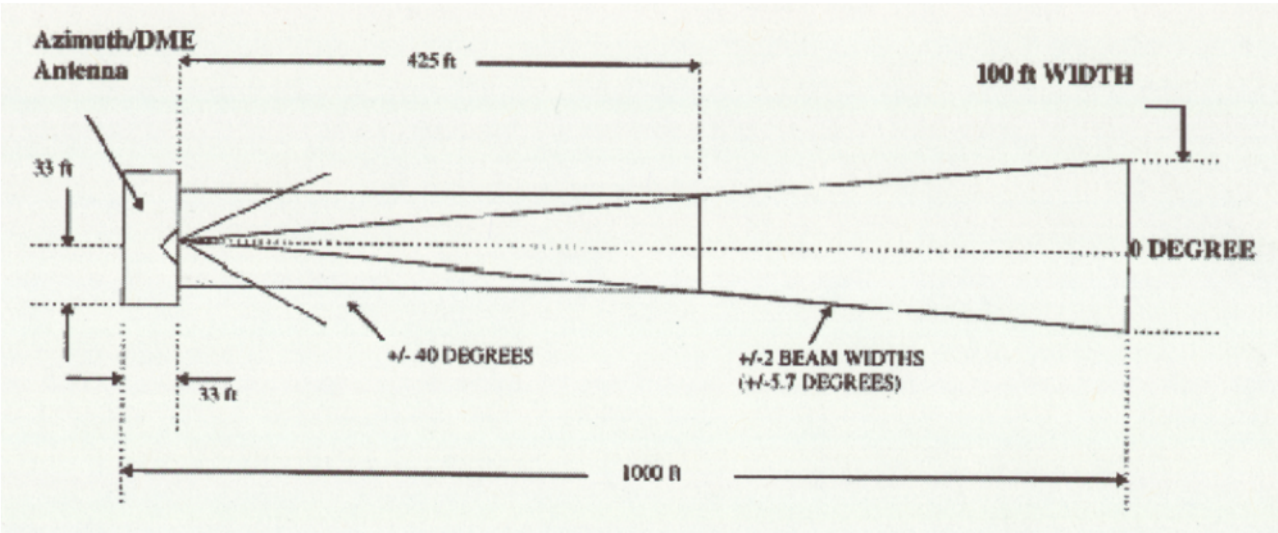
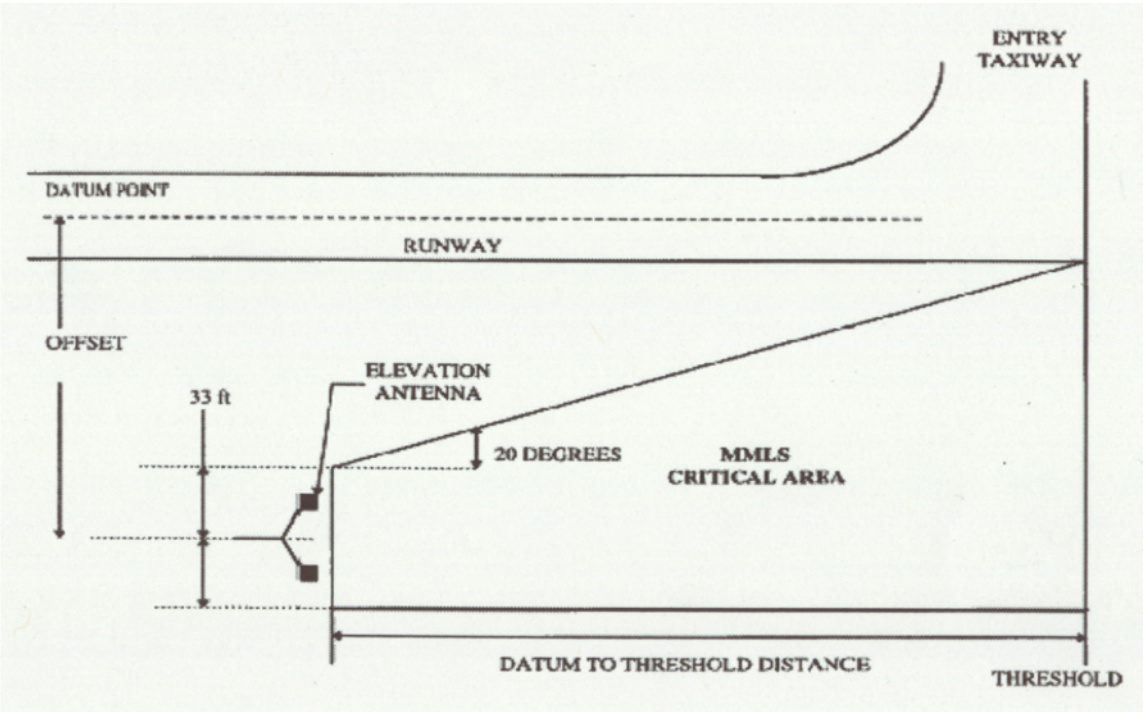


Figure 4.5. MMLS Elevation Critical Areas.



4.21. Displaced Landing Threshold. Actions required in response to displaced landing threshold operations are specified in AFMAN 11-230, *Instrument Procedures,* and AFI 13-213, *Airfield Management.*

Chapter 5

EQUIPMENT

5.1. Equipment Checks.

5.1.1. CCTLR will publish procedures and develop a detailed checklist in an LOP to ensure proper operations of all equipment, to include actions after a power failure and generator changeover. The CATCA will assist the CCTLR by defining procedures for periodic checks and monitoring of all automated equipment for use by the controller workforce.

5.1.1.1. CATCA will publish procedures and develop a detailed checklist in an LOP to ensure proper operations of DTAS and all locally defined systems, to include procedures for periodic checks, system monitoring, and actions after a power failure and generator changeover.

5.1.1.2. The watch supervisor/senior controller opening the facility must complete all equipment checks prior to officially opening the airfield. Additionally, each on-coming watch supervisor must initiate the checklist at the beginning of each shift and complete the checklist as soon as possible.

5.1.2. Watch supervisors must verify equipment outages daily with Job Control. Document completion of the checklist on AF Form 3616**.** Locations with reduced hours of operations at Job Control will establish procedures in an LOP to verify outages when Job Control resumes operations.

5.1.3. Radar and Video Map Alignment. CCTLRs provide detailed radar and video map and alignment procedures in the appropriate ready reference file and/or equipment checklist as follows:

5.1.3.1. Method for checking range/azimuth of obstruction/permanent echo (PE) symbols. The allowable tolerance for radar/map alignment is 2 percent of the ASR antenna-to-PE distance. The allowable tolerance for azimuth is +/- 1.0 degrees. The PE target and PE symbol must be checked separately, however, the tolerances are the same. The PE target is checked to verify radar alignment; the PE symbol check validates map alignment. Calculate the range tolerance using the following formula:

ASR antenna-to-PE distance: .02 X distance (in feet) = allowable range tolerance

Example: To compute the allowable tolerance if the ASR-to-PE symbol/obstruction distance is 20nm, multiply .02 X 20 = 0.4nm. Thus, the PE symbol/obstruction (checked using the cursor and/or range strobe) must fall within +/- 0.4nm of the actual PE symbol/obstruction location.

5.1.3.2. To preclude variances in cursor read out among indicators, designate one radar indicator as the primary source for determining facility radar/map alignment. Controllers are still required to perform radar/map alignment checks at their assigned scope, however, the radar and/or GPA-134 will not be logged out until verified on the primary alignment scope. Fix/map accuracy must be checked on the same range scale for which the video map was developed. See AFMAN 13-215*, ATC Radar Maps and Associated Systems* for map development procedures.

5.1.3.3. TPN-19 and MPN-14K mobile radar systems are not capable of deriving distance criteria, therefore, verify that the PE symbol/obstruction is within +/- 1.0 degrees (using the radar cursor) of the actual PE symbol/obstruction location.

5.1.3.4. Range scale for each video map.

5.1.3.5. For automated systems (STARS, M-EARTS, etc.), verification of the accuracy of new or modified digital maps shall be accomplished through the use of "targets of opportunity" flying over displayed fixes, navigational aids, etc. Any observed discrepancies shall be documented to indicate the observed direction and displacement. If any identified error cannot be corrected or if a facility is otherwise dissatisfied with the results from "targets of opportunity," request a flight check if necessary.

5.2. Facility Clocks. A reliable clock showing hours, minutes and seconds must be visible from each control position. Facilities without a direct coded time source must obtain a time check at the beginning of each shift. Acquire time checks from IFR facilities equipped with a coded time source, the US Naval Observatory (DSN 762-1401), radar facility that provides approach service, host nation ARTCC/area control center responsible for the terminal area, or a GPS source. Set clocks to within 15 seconds of time source. Check clocks immediately after the facility goes on backup power and again 30 minutes after. If found to be inaccurate, check clocks hourly until restoring normal power. **NOTE:** Wind sensor equipment that provides a reliable clock must be checked at the beginning of each shift unless connected to a direct coded time source.

5.3. Weather Equipment Warning Devices. Current observations and pertinent severe weather warnings, advisories, and pilot reports must be available at all controller positions. Where this is not possible, set up coordination procedures to ensure changes to the weather promptly reach each controller position. Equip automatic weather displays with a visual and aural alarm system suited to local operational needs. Facilities with multiple weather displays need only have the aural alarms operational at one position. CCTLR shall designate, in writing, one operating position that is responsible for collecting and disseminating weather data during equipment outages.

5.4. Recorders. Where the capability exists, record by operating position, individual frequency, and landlines as determined by facility managers. Outline procedures in an LOP.

5.4.1. Record operating positions in the following priority:

5.4.1.1. Precision approach radar.

5.4.1.2. Local control.

5.4.1.3. Primary crash phone.

5.4.1.4. Arrival control.

5.4.1.5. Departure control.

5.4.1.6. Approach control.

5.4.1.7. Coordinator.

5.4.1.8. Flight data.

5.4.1.9. Assistant controller.

5.4.1.10. Clearance delivery.

5.4.1.11. Ground control.

5.4.1.12. Supervisor of flying (SOF).

5.4.1.13. Land Mobile Radio (LMR) nets.

5.4.1.14. Automatic Terminal Information Service (ATIS).

5.4.1.15. Supervisor.

5.4.1.16. Tower backup radios.

5.4.1.17. Administrative telephones.

5.4.2. Multi-channel recorders/Digital Voice Recording Systems (DVRS) must have an approved time source installed (i.e. Global Position Satellite). For analog tape systems, use one channel to record the time source.

5.4.3. Record pilot-to-dispatch and pilot-to-forecaster frequencies after meeting the requirements of paragraphs **5.4.** through **5.4.1.** Use remaining channels to record individual frequencies.

5.4.4. DVRS (Digital Voice Recording Systems); Checking and changing recorder tapes. CCTLRs shall establish procedures for DAT change/cleaning schedules. CCTLRs will consider local conditions and ensure DAT cassettes are changed at increments that do not exhaust cassette capacity. DAT cassette changing cycles shall not exceed 73 hours.

5.4.4.1. CCTLRs shall ensure personnel performing tape/digital audio tape (DAT) changes are trained in the proper methods to be used and task certification is documented in AF Form 623. Publish tape change/check procedures in facility operating instruction.

5.4.4.2. An identification number shall be assigned to each DAT cassette. As part of the DAT changing procedures, a checklist identifying date, time, DAT cassette in use, the initials of the person accomplishing the change, and reason for the change (periodic, bad tape, etc.) must be developed and used. A daily entry on the AF Form 3616, *Daily Record of Facility Operation* may be used in place of a checklist, provided all the required information is included in the entry. Maintain this checklist for at least 90 days.

5.4.4.3. Directly after a DAT tape insertion (as a standby tape), the DVRS places a date created tag on the tape (current zulu date). DAT software calculates the 17-day overwrite protection based on the date created tag, not the last recording on the tape. If the recorded content of the tape exceeds two days from the date created stamp, there is a potential to overwrite recorded data too soon (especially for locations using DAT longer than a 24-hour cycle). CCTLRs shall ensure enough DAT's are available in the rotation cycle to accommodate 17-day overwrite protection. Protection at facilities using DAT's for greater than 24-hour cycles must be ensured to prevent inadvertent loss of data. Locations using a 24-hour rotation cycle shall ensure a minimum of 17 days between initial insertion and reuse. Locations using a 48-hour rotation cycle shall ensure a minimum of 18 days between initial insertion and re-use.

5.4.4.4. Validate Nicelog supervision window for alarms and verify normal operations of equipment on digital voice recorder system on a daily basis not to exceed 25 hours. Audio quality checks shall be accomplished monthly. If this function is performed by maintenance, that information should be included in facility procedures. Annotate Nicelog verification and quality checks on AF Form 3616 when accomplished.

5.4.4.5. DAT cartridges shall be replaced after 35 recording cycles.

5.4.4.6. Each user of digital voice recording system shall be issued a user unique log-in password (i.e. log-in: RT; password: chosen by RT). ***NOTE:*** Log-in password information shall not be shared amongst users (i.e., log-in: A Crew; password: shared by a crew).

5.4.4.7. The DVRS shall only be used for accessing and editing recordings made with the DVRS equipment. The computer workstation and logger shall not be used for any other purpose.

5.4.4.8. No other programs and/or software packages are to be loaded and/or executed on any of the DVRS system components.

5.4.4.9. Do not lock channel(s) longer than five hours. Locking channel(s) for extended periods of time will overload the hard-drive and cause system failure. Make an entry on AF Form 3616 to show locking and unlocking times.

5.4.5. Analog voice recorder systems. Tape change and recorder monitor operations checks shall be performed daily and shall not exceed 25 hours between checks. Annotate on AF Form 3616 when complete.

5.5. Primary Crash Alarm System (PCAS). Define procedures and conditions for activation in the base airfield operations instruction. Limit agencies with two-way telephones to the control tower, base operations, fire department, and the medical center. Additional agencies may have receive-only capability. The tower PCAS must have a visual system indicating when each two-way party on the PCAS picks up the handset. During real-world emergencies, trainees may only activate the PCAS if the trainer/monitor has the capability to monitor and transmit over the PCAS.

5.6. Land Mobile Radios (LMR). Each LMR system supporting ATC and aerodrome operations must terminate in the control tower console if enough transmitter and receiver selection switches and speakers are available.

5.6.1. Each LMR terminating in the control tower must have a selective call feature (electronic, mechanical, or procedural) that enables the tower to mute the radio and eliminate unnecessary transmissions. LMRs tuned to a frequency dedicated to ATC use are exempt from this requirement.

5.6.2. Control towers with digital land mobile radios will establish an LMR net (a.k.a. FM net, talk group, etc) dedicated for use between vehicle operators and ATC, solely for the purpose of operating on the runway and controlled movement area.

5.7. Airfield Lighting Systems.

5.7.1. Equip the control tower with the capability to operate airport lighting systems and visual aids. Name an agency responsible and define procedures in an LOP for operating the airport lighting when the tower closes. Refer to AFI 13-213, Attachment 6, for specific lighting requirements.

5.7.2. When the prevailing visibility is 1 mile or less, or the runway visual range (RVR) is 6,000 feet or less, report changes in the high intensity runway light (HIRL) setting to the weather observer. This ensures the RVR, based on the HIRL setting of 3, 4, or 5, represents the existing RVR.

5.7.3. Rotating Beacon. Follow FAAO 7110.65 rules for operating the rotating beacon during facility operating hours. However, if the tower does not operate 24-hours a day, ensure the airport rotating beacon is turned off when the facility closes.

5.8. Multiple Instrument Landing Systems (ILS) Facilities:

5.8.1. ILS facilities installed on intersecting or parallel runways may operate simultaneously, provided the ILS facilities operate on separate, non-interfering frequencies and an operational requirement for simultaneous operation exists. Verify noninterference by FAA flight inspection.

5.8.2. ILS facilities at opposite ends of the same runway must have an interlock to prevent simultaneous operation. Assign distinctly different identifier codes.

5.8.2.1. If the facilities are on common frequencies, assume interference (both glide slope and localizer). Do not disable the interlock to allow simultaneous operation.

5.8.2.2. If the facilities are on discrete non-interfering frequencies and weather is VMC, personnel may bypass the interlock to allow simultaneous localizer and or glide slope operations to accommodate facility installation, maintenance restoration, preventive maintenance, or flight inspection. If a flight inspection discovers interference between localizers and documents the location of interference, permit simultaneous localizer radiation during VMC weather and issue a NOTAM that restricts the facility to the in-tolerance portion of the ILS signal. ***EXAMPLE***, "RUNWAY 32 LOCALIZER UNUSABLE INSIDE MM or 1.5 DME."

5.8.2.3. Specify conditions for bypassing interlocks in an LOP with maintenance.

5.8.3. The CCTLR of the facility responsible for NAVAID status must set up procedures to verify the operational status of the inactive ILS, to include standby transmitters of each operating system, at least once daily during a low density traffic period.

5.8.4. Maintenance personnel must get ATC approval before making radiation checks on the inactive ILS.

5.9. ILS Equipment Requirements for Operation. Loss of transmitter or monitor redundancy of either subsystem does not affect the category. Instructions concerning temporary RSI in paragraph **4.17.** also apply. If the localizer far field monitor (FFM) becomes inoperative on a Category II system, send a NOTAM downgrading the ILS to Category I until repair of the FFM. Temporary bypass of the FFM does not affect Category I systems.

5.10. Automated ATC Systems.

5.10.1. HQ Electronic Systems Center (ESC) OL-D/E is the authoritative source for the implementation, operation, and maintenance of the automated ATC systems they support and maintain (i.e., PIDP, FLIPS, ATCTD, etc.). HQ ESC OL-D/E Operator's Manuals and Version Description Documents (VDDs) are directive in nature.

5.10.1.1. Facility CCTLRs will review each PIDP/FDS VDD to determine any operational or procedural impact and, when necessary, issue a facility directive describing the functional or procedural changes. Prior to operational use of a new program update, the PIDP Performance Evaluation Test (PET) will be accomplished indicating the date and individuals performing the tests. If any portion of the test fails, do not initialize the new program until HQ ESC OL-D/E has authorized its use.

5.10.2. The FAA is the authoritative source for the software maintenance of the ATC systems they support (i.e., Micro-EARTS, STARS, ETVS, DVRS, etc.). System Technical Instructions are directive

in nature. Prior to operational use of a new program update, accomplish the applicable test plan, indicating the date and individuals performing the tests.

5.10.3. Computer hardware, software programs, and databases used to provide operational ATC services are mission and life critical resources. Do not tamper with, alter, or use these resources for other than their intended purposes. Load only authorized software programs provided by the system software manager. All personnel share the responsibility for protecting these resources.

5.10.4. Immediately withdraw from service any ATC computer resource suspected of malfunctioning due to tampering, abuse or introduction of unauthorized programs (i.e., software viruses, etc.). Physically disconnect all interface connections to other computer systems and maintain the suspect computer or software for analysis. Notify the FAA/DoD support personnel and AOF/CC for submittal to MAJCOM ATCALS OPR.

5.10.5. Digital Terminal Automation Systems (DTAS).

5.10.5.1. Operational Use.

5.10.5.1.1. Do not use STARS data when the system is released to maintenance.

5.10.5.1.2. Verify the operational status of all DTAS sub-systems daily.

5.10.5.1.3. Advise effected facilities when STARS equipment will not be operational at normal startup time, when it fails, is shut down, resumes operation, or when inter-facility mode is lost/regained.

5.10.5.2. Data Entries. Facility directives shall prescribe the use of the scratch pad and the specific responsibility for entering the current ATIS alpha character, the current general system information (GSI) and the system altimeter setting.

5.10.5.3. Display Data.

5.10.5.3.1. When a malfunction causes repeated discrepancies of 300 feet or more between the automatic altitude readouts and pilot reported altitudes, request the ATCSS to inhibit the automatic altitude report (Mode C) display until the malfunction has been corrected.

5.10.5.3.2. Display Mode C on untracked (unassociated) targets within each controller's area of responsibility by setting the altitude filters to encompass all altitudes within the controller's jurisdiction. Set the upper limits no lower than 1,000 feet above the highest altitude for which the controller is responsible. In those stratified positions, set the upper and lower limit to encompass at least 1,000 feet above and below the altitudes for which the controller is responsible. When the position's area of responsibility includes down to the airport field elevation, the facility will set the lower altitude filter limit to encompass the field elevation, so that provisions of FAAO 7110.65, paragraph 2-1-6, Safety Alert, and FAAO 7110.65 subparagraph 5-2-18a2, Validation of Mode C Readout, may be applied. CCTLRs may authorize the temporary suspension of this requirement when target clutter is excessive.

5.10.5.4. Automation Program Changes.

5.10.5.4.1. CATCAs shall review all applicable documentation issued by the FAA/DoD support facility pertaining to changes in their automated system and database to determine any operational or procedural impact. The CATCA will notify facility CCTLRs and Chief of Maintenance of any changes that impact operations or procedures.

5.10.5.4.1.1. When necessary, the CCTLR will:

5.10.5.4.1.1.1. Notify all controllers of any functional/procedural change(s) and any resulting training requirements.

5.10.5.4.1.1.2. Coordinate any procedural, and airspace change(s) with the ARTCC.

5.10.5.4.1.2. When necessary, the CATCA will coordinate functional changes with the host ARTCC requiring modification of inter-facility adaptation.

5.10.5.4.2. The CATCA will ensure, as a minimum, the 3 latest builds of software and associated documentation, to include adaptation, are available.

5.10.5.5. Automatic Acquisition/Termination Areas.

5.10.5.5.1. Facility CCTLRs shall:

5.10.5.5.1.1. Establish automatic acquisition areas for arrivals and overflights at ranges permitting auto-acquisition of targets prior to the ARTCC/STARS-to-STARS automatic handoff area when the center is in the radar data processing (RDP) mode.

5.10.5.5.1.2. Coordinate with the adjacent automated facilities to ensure that computer handoffs will be initiated only after the aircraft is within their facility's automatic acquisition area. Where this is not feasible due to airspace assignment, facility directives shall require use of an appropriate procedure specified in FAAO 7110.65 to confirm the identity of all aircraft handed off prior to auto-acquisition.

5.10.5.5.1.3. Establish automatic acquisition areas for departing aircraft one mile or less from the runway end.

5.10.5.5.1.4. Establish automatic termination areas for arriving aircraft one mile or less from the runway threshold or, at satellite airports, the minimum radar coverage range/altitude, whichever is greater.

5.10.5.5.1.5. Identify which operating position is responsible for determining if automatic acquisition of a departure track has occurred in an LOP. ***NOTE:*** This is intended for operations where automatic acquisition responsibility could be confused, i.e., uncontrolled airports within a single sector or between different radar sectors that serve the same airport.

5.10.5.6. Minimum Safe Altitude Warning (MSAW) and Conflict Alert (CA).

5.10.5.6.1. CCTLRs shall ensure that aural test of the MSAW speakers located in the operational positions are included as part of the equipment checklist required during each watch. The purpose of this inspection is to ensure the aural alarm is functioning and audible to the appropriate operational personnel.

5.10.5.6.2. When their continued use would adversely impact operational priorities, CCTLRs may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions. Except when equipment or site adaptation problems preclude these functions from being used, a brief written report shall be sent to the MAJCOM OPR for ATC whenever they are inhibited. A copy of the report shall be forwarded to AFFSA/XAO.

5.10.5.6.3. CCTLRs are authorized to inhibit CA at specific operating positions if an operational advantage will accrue.

5.10.5.6.4. Utilize the most current MSAW Database.

5.10.5.6.5. CCTLRs, in coordination with TERPS and the CATCA, shall ensure that:

5.10.5.6.5.1. The magnetic variation of radar video maps/geo maps, MSAW, DTM's, and radar site settings coincide. Verify magnetic variation annually. Whenever a change of 2 degrees or more occurs, recompile the effected maps. **NOTE:** The video map is the primary reference for maintaining radar antenna alignment.

5.10.5.6.5.2. DELETED

5.10.5.7. Magnetic Variation of Video Maps/GEO Maps at STARS Facilities. CCTLRs, in coordination with TERPS and the CATCA, shall ensure that the magnetic variation of radar video maps/geo maps, MSAW and radar site settings coincide. The magnetic variation shall be verified annually and a change of two (2) degrees or more requires reaccomplishing/recompiling the effected map or maps. ***NOTE:*** The video map is the primary reference for maintaining radar antenna alignment.

5.10.5.8. MSAW DTM Updates. Updates to DTM maps will be provided for each site through their supporting OSF. CATCAs will advise their supporting OSF of any intent of moving the ASR antenna on which the map is based if it is to be relocated more than 300 feet away from its original position and/or the magnetic variation of the site changes by two degrees or more. Either of the two above conditions will require recompiled MSAW DTM maps. ***NOTE:*** Requests for new or recompiled DTM's requires approximately ten weeks to build and deliver.

5.10.5.9. Mode C Intruder (MCI) Alert Parameters. Use the nominal value of parameters specified in the appropriate NAS Configuration Management Document and Site Program Bulletins for the MCI Alert functions, except for the base altitude parameter, as specified in the paragraphs below, unless a waiver to adjust the base altitude parameter value is received from the MAJCOM OPR for ATC.

5.10.5.9.1. MCI Alert base altitude shall be set at any value between ground level and 500 feet AGL at the discretion of the facility CCTLR. Any instance of base altitudes above 500 feet AGL shall be documented and forwarded to the MAJCOM.

5.10.5.9.2. CCTLRs are authorized to temporarily adjust the MCI Alert base altitude at a sector(s)/position(s) when excessive MCI Alerts derogate the separation of IFR traffic. For the purpose of this section, temporary is considered to be of less than 4 hours duration, not necessarily continuous, during any calendar day. The following is required when MCI base altitude is adjusted:

5.10.5.9.2.1. Log each occurrence on the facility log when this procedure is being used, including the sector/position and temporary altitude.

5.10.5.9.2.2. Documentation shall be forwarded to the MAJCOM OPR for ATC if it is determined that a temporary adjustment of the MCI base altitude does not meet the needs of the sector/position.

5.10.5.9.3. CCTLRs are authorized to inhibit the display of MCI Alert at specified sectors/position.

5.10.5.10. Operational Mode Transition Procedures.

5.10.5.10.1. CCTLRs shall develop and maintain current detailed procedures in a LOP for transition to and from the various automated and non-automated modes of operation.

NOTE: The architecture of STARS allows for different operational modes during display component failures. For example, a system component failure could result in positions within the same facility operating in a non-automated mode with reduced functionality. For example, a system component failure could result in positions within the same facility operating in Emergency Service Level (ESL) or Full Service Level (FSL) mode. Facilities are encouraged to take advantage of this capability to minimize the impact of display system outages.

5.10.5.10.2. The transition plans shall include as a minimum:

5.10.5.10.2.1. Transition decision authority; i.e., the individual responsible for making the transition decision.

5.10.5.10.2.2. Specific transition procedures.

5.10.5.10.2.3. Detailed checklists specifying the duties and the responsibilities for the watch supervisor and other appropriate positions. The checklist shall include, as a minimum, the following information/procedures:

5.10.5.10.2.3.1. Transition decision authority.

5.10.5.10.2.3.2. Coordination/notification procedures (intra and inter-facility).

5.10.5.10.2.3.3. Specific duties/responsibilities (including detection and resolution of potential conflicts). ***NOTE:*** Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

5.10.5.11. Radar Selection Procedures. CCTLRs shall develop and maintain current detailed procedures for selection of radar sites in a LOP. ***NOTE:*** The architecture of STARS allows for the selection of up to 16 different radars including short range and long-range radars at each display. This could result in positions within the same facility working and receiving radar information from different radars. Facilities are encouraged to take advantage of this capability to minimize the impact of radar outages, blind areas, limited radar coverage, etc.

5.10.5.11.1. The selection plans shall include as a minimum:

5.10.5.11.1.1. Radar selection decision authority; i.e., the individual responsible for making the radar selection decision.

5.10.5.11.1.2. Specific radar selection procedures.

5.10.5.11.1.3. Detailed checklists specifying the duties and the responsibilities for the watch supervisor and other appropriate positions. The checklist shall include, as a minimum, the following information/procedures:

5.10.5.11.1.3.1. Radar selection decision authority.

5.10.5.11.1.3.2. Coordination/notification procedures (intra- and interfacility).

Specific duties/responsibilities (including detection and resolution of potential conflicts). ***NOTE:*** Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

5.10.5.12. Multi-Sensor Radar Operations. CCLTRs shall develop detailed procedures for selection and use of multi-sensor radar operations. ***NOTE:*** The architecture of STARS allows for the use of multi-sensor radar coverage for the display presentation. This could result in positions within the same facility working in both single sensor slant range mode and multi-sensor mode. Facilities are encouraged to take advantage of this capability to minimize the impact of radar outages, blind areas, limited radar coverage, etc.

5.10.5.12.1. Minimum procedures will include:

5.10.5.12.1.1. Decision authority to use multi-sensor coverage: i.e., the individual responsible for making the decision.

5.10.5.12.1.2. Specific multi-sensor radar procedures.

5.10.5.12.1.3. Detailed checklists specifying the duties and the responsibilities for the watch supervisor and other appropriate positions. The checklist shall include, as a minimum, the following information and procedures:

5.10.5.12.1.3.1. Decision authority to use multi-sensor radar coverage.

5.10.5.12.1.3.2. Coordination/notification procedures (intra and inter-facility).

5.10.5.12.1.3.3. Specific duties/responsibilities including detection and resolution of potential conflicts such as transition from a 3 mile separation single-sensor environment, to a 5 mile separation multi-sensor environment.

NOTE: Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

5.10.5.13. Single Site Coverage Operations. Facilities may adapt all sort boxes within 40 miles of the antenna to that site as preferred and with the single site indicator set to permit the use of 3 miles radar separation as defined in FAAO 7110.65, subparagraph 5-5-4b3, Minima.

5.10.5.13.1. This adaptation may be used provided:

5.10.5.13.1.1. A significant operational advantage will be obtained using single site coverage. Consideration must be given to such aspects as terminal interface, radar reliability, etc.; and appropriate procedures are identified in a LOP. As a minimum the LOP must:

5.10.5.13.1.1.1. Define areas within 40 NM of any radar site in which the adaptation has been modified.

5.10.5.13.1.1.2. Permit 3 NM separation in the modified area.

5.10.5.13.1.1.3. Accommodate local procedural changes.

5.10.6. Programmable Indicator Data Processor (PIDP). Units using PIDP shall comply with the following procedures:

5.10.6.1. CCTLR shall establish procedures to check PIDP Minimum Safe Altitude Warning (MSAW) alarms. Checks shall be accomplished at the beginning of each watch and documented in the Facility Events Log.

5.10.6.2. Except for emergency requirements, submit any needed changes in site-unique PIDP or MSAW data at least 120 days in advance. Submit changes to MAJCOM for review and forwarding

to HQ ESC OL-D/E/TG/3S, Tinker AFB, OK. Each PIDP equipped unit will maintain the following site-unique data, as appropriate:

5.10.6.2.1. AF Form 3645, PIDP Submission Form.

5.10.6.2.2. Current 15 and 60 nautical mile (NM) MSAW charts and data.

5.10.6.2.3. Reflection discrimination data, if used.

5.10.6.2.4. Low Altitude Alerting System (LAAS) data products for TPX-42/980B.

5.10.6.2.5. LAAS data products for TPX-42-only versions of digital bright indicator tower equipment (DBRITE).

5.11. Radar Mapping Equipment. The minimum radar mapping capability for commissioning an approach control service is a dual video mapper, adequate map overlay (if available), or computer-generated display. *NOTE:* AN/GPA-134 Video Mapper meets the dual video mapper requirement.

5.11.1. Do not use grease pencil markings, plastic tape, compass rose grid lines, range marks or other innovations in place of an adequate map overlay, video map, or computer generated display.

5.11.2. If map overlays are available and coincidental with a flight inspected video map presentation, they do not need to be flight-inspected.

5.11.3. DTAS Maps

5.11.3.1. The TERPS specialist will design facility maps IAW AFI 13-215. The designated CATCA will coordinate with HQ ESC OL-DE/GA, Tinker AFB to create the facility maps, then upload, and maintain facility maps IAW CCTLR. The TERPS specialist will ensure locally generated MVA maps are verified against the current MAJCOM approved MVA chart before operational installation in the facility. Obtain CCTLR approval prior to installation of new maps. Keep a copy of the map data print out sheet signed by the CCTLR on file.

5.11.3.2. CCTLRs shall specify in an LOP procedures for using optional maps.

5.11.4. AN/GPA 134.

5.11.4.1. Prior to installation, CCTLRs shall ensure current accurate data was used during the building process of digital video maps. Quality checking and comparing the source document data with the map data print out sheet can accomplish this. Ensure that the data used to build the map agrees with the data found on the source document. CCTLRs shall certify completion of the quality measure by signing a file copy of the map data printout sheet.

5.11.4.2. The designated TERPS specialist will create, upload, and maintain facility maps in accordance with AFMAN 13-215. Ensure locally generated MVA maps are verified against the current MAJCOM approved MVA chart before operational installation in the facility. Obtain CCTLR approval prior to installation of new maps. Keep a copy of the map data print out sheet signed by the CCTLR on file.

5.11.4.3. Use only MAJCOM approved source documents, such as LOAs, CE documents, flight check reports, airfield surveys and current MVA charts, when building digital maps.

5.11.4.4. Procedures.

5.11.4.4.1. Ensure primary and backup designated airspace map and your unit's most critical maps are programmed and placed on separate slim line/circuits.

5.11.4.4.2. Designate one position on the slim line panel as the maintenance test map. This map acts as an internal system monitor for digital map accuracy. Refer to TCTO "Adjustment for Delay".

5.11.4.4.3. Restrict access to the system. Do not load any software other than the system software provided with the map creation unit laptop.

5.12. Battery-Powered Transceivers. Facilities equipped with battery-powered transceivers, such as PRC-113, shall ensure that they are maintained in a state of readiness. Transceivers shall be checked at least once a month.

5.13. Control Tower Plastic Window Shades. Use of standard specification FAA-E-2470B for control tower plastic window shades in accordance with FAAO 6480.18. Local units must use these specifications when ordering replacements.

5.14. Control Tower Cab Windows. Install tower cab windows in accordance with FAAO 6480.7, **Attachment 1**. Consult the Air Traffic Control Tower design guide for further guidance.

5.15. Facility Security. The CCTLR must secure the ATC operating area at all times. Install a cipher lock or other suitable locking device at initial entry points to control towers and radar facilities. Install similar devices at the main entry point to the control tower cab and the radar operations room. Secure other entry points to the tower cab and radar operations room with manual devices, such as dead bolts, locks, hasps, etc. Secure mobile radar and tower facilities to the maximum extent possible.

5.16. Gas Mask (MCU-2A/P) Communication System Interface Equipment. This equipment is designed to enhance operations through improved connectivity and contamination control in mission-oriented protective posture (MOPP) environments faced with an increased threat of biological/chemical warfare attacks. OG/CCs determine whether or not to procure the MCU-2A/P communication system interface equipment at their locations based on the type facility. MCU-2A/P communication system interface is dependent upon host ATC equipment compatibility requirements. The communication system interface equipment is listed in the MCU-2A/P Technical Order 14P4-15-l, paragraph 5-34 and illustrated parts breakdown (IPB) section, Page 6-6, Index 22.

5.16.1. All system interface architectures use the form/fit/ function replacement "150-ohm" microphone element (NSN 5965-01-447-29**8**6). Microphone elements are ordered through base supply.

5.16.2. The "Y" cords are identified by model number and are ordered directly from PLANTRONICS INC. PLANTRONICS government sales representatives can be reached at 1-800-544-4660 ext 7520.

NOTE: The MCU-2A/P communications system interface equipment is not compatible with the AN/GSC-37 communications system.

5.17. Emergency Warning and Evacuation Alarms. When evacuation alarms are installed, AOF/CCs must coordinate with the Chief of ATCALS Maintenance to ensure written procedures are established in a local operating procedure (LOP) for testing the alarms. Document results of the test on the AF Form 3616.

5.18. Certified Tower Radar Display (CTRD). DBRITE and Tower Display Workstation (TDW) radar displays in USAF control towers are certified radar displays. Radar displays must be certified for use by maintenance personnel according to AF and FAA guidance.

Chapter 6

CONTROL TOWER OPERATIONS

6.1. Light Gun Operations.

6.1.1. Attach AFVA 13-221, *Control Tower Light Signals,* or card listing the color codes and meanings contained in FAAO 7110.65 to the each gun.

6.1.2. If equipment allows, adjust each gun to give a red light when turned on.

6.1.3. Do not beam signals through sunshades.

6.1.4. Light gun operational checks must be accomplished at least once per day and when practical with aircraft or vehicles.

6.2. Takeoff or Landing Direction Determination. According to FAAO 7110.65, Control tower personnel determine the runway in use, unless procedures in an LOP delegate this function to another agency.

6.2.1. Coordinate with terminal radar facilities before changing the runway in use.

6.2.2. Notify the terminal radar facility, base operations, base weather facility, and ARTCC (if appropriate) when the runway change is complete.

6.3. Control of Ground Traffic in Controlled Movement Areas. Specific ATC approval is required prior to entry into controlled movement areas (defined in the base AOI) in accordance with AFI 13-204, paragraph 5.6.

6.4. Wind Limitations on Control Towers. The base civil engineer must make a structural evaluation of the control tower to determine the maximum wind velocity the tower will safely withstand. Make the evaluation a permanent part of control tower real estate records. The OG/CC establishes a maximum safe wind velocity for control tower operations. The maximum safe wind velocity will be incorporated in the base airfield operations instruction and will be used to guide control tower evacuation plans. The tower CCTLR establishes local tower evacuation procedures in an LOP.

6.5. Functional Use of Certified Tower Radar Display (CTRD). CTRD's may be used by local controllers for the following functions:

6.5.1. To determine an aircraft's identification, exact location, or spatial relationship to other aircraft. This authorization does not alter visual separation procedures. When employing visual separation, apply procedures as required by FAAO 7110.65, Air Traffic Control.

6.5.2. To provide aircraft with radar traffic advisories.

6.5.3. To provide a direction or suggested headings to VFR aircraft as a method for radar identification or as an advisory aid to navigation.

6.5.4. To provide information and instructions to aircraft operating within the surface area for which the tower has responsibility.

6.5.5. MAJCOMs may authorize the use of the tower radar displays to ensure separation between successive departures, between arrivals and departures, and between overflights and departures within the surface area for which the tower has responsibility only if:

6.5.5.1. There is no additional airspace delegated to the tower.

6.5.5.2. Tower local controllers receive radar training and certification commensurate with their radar duties. Items/tasks trained in local control PCGs and documented in the CFETP will satisfy these requirements.

6.5.5.3. An LOP exists with the IFR facility having control jurisdiction, clarifying the additional functions tower is authorized to perform. The LOP must outline

6.5.5.3.1. The process for a transition to nonradar procedures or the suspension of separation authority in the event of a radar outage. Procedures must not impair the local controller's ability to satisfy responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility.

6.5.5.3.2. Procedures for giving and receiving radar handoffs or point-outs do not impair the local controller's ability to satisfy responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility.

6.5.5.3.3. Procedures for ensuring radar separation do not require the tower to provide radar vectors.

6.5.6. Operational applications of certified tower radar displays other than those outlined above require HQ AFFSA/XA approval.

6.5.7. CCTLRs may determine, on a case-by-case basis, if the maintenance indicator is adequate to support operations during short-term outages. Do not use the DBRITE maintenance indicator on a permanent basis.

6.6. Wear of Sunglasses in Control Towers. Do not wear photogray, polarizing, or photo activated darkening system type sunglasses while performing ATC duties.

6.7. Protection of 360 Overhead Pattern. Locations that use the overhead pattern must develop local procedures and coordinate ATC/aircrew requirements to protect the overhead pattern. Procedures and coordination requirements must be published in an LOP. Such procedures must not restrict the departing, missed approach, or go-around aircraft to a point or altitude that, once it crosses the departure end of the runway, compromises TERPS obstacle clearance or IFR clearance. Published (flight inspected) IFR TERPS procedures, including missed approach instructions, must not be restricted to protect the VFR/360 overhead pattern. Where the base airfield operations instruction contains specific climbout instructions to protect the overhead pattern, controllers may use the phrase "EXECUTE LOCAL CLIMBOUT" for locally assigned aircraft only.

6.8. Tower Equipment Requirements. Appropriate to assigned mission functions, provide each control tower with the following equipment:

6.8.1. Control Tower console

6.8.2. Flight progress strip holders

6.8.3. Landline system

6.8.4. Radio receiver and transmitter controls

6.8.5. Tower radar display

6.8.6. Weather dissemination and display equipment

6.8.7. Two wind direction and speed indicators

6.8.8. NAVAID remote status indicators

6.8.9. Tower and radar coordination system

6.8.10. Two air traffic control light guns

6.8.11. Two pair of binoculars

6.8.12. Airfield lighting control

6.8.13. Runway barrier controls and status indicators

6.8.14. Primary crash alarm system

6.8.15. Counters for recording traffic

6.8.16. UHF and VHF emergency/alternate radio systems

6.8.17. Voice recorders and adequate supply of digital/magnetic tapes/cassettes

6.8.18. Battery-operated emergency lighting system or flashlights

6.8.19. Dedicated communications for tower/radar coordination

6.8.20. Flight Data System

6.8.21. Automatic Terminal Information Service (ATIS)

6.8.22. RVR equipment for bases with CAT II ILS

6.8.23. Headsets

6.9. Tower Departure Restrictions.

6.9.1. DELETED

6.9.2. Tower shall not issue takeoff or taxi into position and hold clearances when arriving IFR aircraft are four miles or less from the runway, unless visual separation can be applied between aircraft on the runway and aircraft on final.

6.10. USAF VFR Tower Operations Within Class C Airspace.

6.10.1. When conditions require USAF VFR towers to operate within Class C airspace, the following minimum provisions are required for providing VFR tower services and must be covered in an LOP with the servicing radar agency:

6.10.1.1. Tower surface area must be defined.

6.10.1.2. Tower controllers may provide transit authorization of the surface area in accordance with FAAO 7110.65, paragraph 2-1-16. When approving surface area transit requests, tower con-

trollers shall use phraseology for operational requests in accordance with FAAO 7110.65, paragraph 2-1-18. IFR surface area transitions will remain under the control of the servicing radar facility.

6.10.1.3. Tower and radar coordination procedures for arrivals must be developed in accordance with, paragraph **4.9.** of this instruction.

6.10.2. USAF VFR towers, located within Class C airspace, are authorized and may provide the following services within their surface area:

6.10.2.1. Standard separation between successive departures and between arrivals and departures.

6.10.2.2. Visual Separation, wake turbulence separation and traffic advisories/alerts between IFR and VFR aircraft.

6.10.2.3. Mandatory traffic advisories/alerts between aircraft in the tower's surface area.

6.11. Land and Hold Short Operations (LAHSO). USAF policy prohibits air traffic controllers and pilots from conducting LAHSO operations.

6.12. Aircraft Arresting System Maintenance/Reconfiguration Notification. Notify airfield management before releasing arresting systems to barrier maintenance for maintenance or configuration changes.

Chapter 7

RADAR OPERATIONS

7.1. Radar Use.

7.1.1. USAF ATC radar systems may be used for:

7.1.1.1. Surveillance of aircraft to assure the effective use of airspace.

7.1.1.2. Vectoring aircraft to provide separation and radar navigation.

7.1.1.3. Vectoring aircraft to final approach.

7.1.1.4. Vectoring aircraft to the airport of intended landing.

7.1.1.5. Monitoring instrument approaches.

7.1.1.6. Providing assistance to pilots of aircraft in distress.

7.1.1.7. Conducting precision or surveillance approaches.

7.1.1.8. Air Base Defense (see paragraph **7.11.**).

7.1.2. A facility may remote a radar operated by non-ATC agencies and use it for ATC purposes if the radar is satisfactorily flight checked according to AFMAN 11-225. The non-ATC agency must not alter radar information furnished to the ATC facility without prior notification.

7.1.3. A controller provides radar service when they have a usable target and determine that presentation and equipment performance are satisfactory.

7.1.3.1. A usable target is one where a return is not missed on more than two consecutive scans along the entire airway/route or arrival/departure control routes for which radar service is provided. For surveillance approaches, a return should be seen on every scan from the final approach fix to the missed approach point. ***NOTE:*** For automated radar systems, consult system specific technical manuals and FAAO 7110.65, Chapter 5.

7.2. AN/TPX-42 Strapping. Normally strap the AN/TPX-42 1,000' higher than the transition altitude. The negative 1,000' altitude factor applied between the point of strapping and the point of applying local altimeter correction is an inherent part of the signal-processing chain. At locations with low transition altitudes (below 10,000'), strap the TPX-42 2,000' above the transition altitude. This will reduce the number of incorrect altitude read-outs below the transition altitude during periods of low altimeter settings.

7.2.1. Do not use AN/TPX-42 altitude read-outs for separation between the transition altitude and the transition level. During periods of low altimeter settings (between 28.92 and 27.92), altitude read-outs may be unreliable at altitudes within 1,000' below the transition altitude.

7.2.2. Facilities with programmable indicator data processor (PIDP) equipment do not require strapping.

7.3. Range Azimuth Beacon Monitor (RABM).

7.3.1. CCTLRs must provide written guidance for use of the AN/TPX-49A during equipment checks and when verifying beacon range accuracy before providing secondary radar-only service during temporary primary radar outage conditions or when secondary radar service is provided outside the cov-

erage of primary radar. Continually display the AN/TPX-49A generated target to verify system accuracy whenever primary radar is inoperative and secondary radar is in use. If using a code other than 6666, ensure maintenance sets the displayed altitude to greater than 60,000 feet (600) to prevent erroneous Traffic and Collision Avoidance System (TCAS) alerts to TCAS-equipped aircraft.

7.3.2. Where desirable and equipment supports this function, beacon targets may be displaced at a slightly greater range than their respective primary returns. When beacon displacement is elected, issue a facility directive specifying the standard relationship between primary returns and the beacon control slash of secondary returns. The maximum allowable displacement is 1/2 mile applied in 1/4-mile increments.

7.3.3. Continually display the AN/TPX-49A generated target to verify system accuracy when secondary radar service is provided outside the coverage of primary radar.

7.4. Radar Reflectors for Precision Approach Radar (PAR).

7.4.1. The outage of one bracketing reflector, or the outage of the centerline reflector when a single centerline reflector is being used, does not make the PAR unusable provided a suitable alternate method of runway centerline reference is available (approach lights, runway lights, barrier poles, etc.). CCTLRs will determine which returns to use as a temporary replacement for the bracketing reflectors. Verify accuracy of the alternate references through local or formal flight inspection. After flight check determines accuracy, publish guidance for use in a facility directive. In addition, MTI reflectors must be operational (refer to the appropriate TO for the minimum number required) when conducting PAR approaches using MTI radar. The outage of any one of these reflectors makes the PAR unusable in the MTI mode.

7.4.2. The AN/GPN-22 and AN/TPN-25 do not use bracketing or touchdown reflectors; they rely on track reflectors to monitor track accuracy for each runway served. The PAR is unusable for a given runway if the system cannot track the corresponding reference reflector. If this condition occurs, the systems will flat-line the glideslope cursor. If the system can track the reference reflector, but the controller cannot view or manipulate track symbols, the system may still be used in the scan-only mode if it is flight checked and procedures are detailed in local directives.

7.5. Radar Glide Path and Course Information. Use the center of the radar target (track symbol for phased array PARs) to determine when an aircraft exceeds the PAR safety limits. Use minimum gain to provide the most accurate position information.

7.5.1. The AN/GPN-22 and AN/TPN-25 use a computer tracking system. Local conditions and equipment performance may limit the use of this equipment to control aircraft without the aid of the tracking system (scan mode only). Commissioning and periodic flight inspections of these radar systems will identify their capabilities and limitations. During temporary loss or non-availability of the tracking symbology and the controller can verify the radar is otherwise operating normally, the controller may use scan only video to conduct radar approaches provided limitations and procedures are published in an LOP.

7.6. PAR Safety Zones.

7.6.1. PAR Lower Safety Limit Zone. A PAR lower safety limit path ("B" cursor) originates between the end of the runway and a point not closer than 500 feet before the runway point of intercept (RPI)

of the glide path. Where possible, "B" cursor origin should be at least 250 feet from the runway end. That area between the "B" cursor and the glide path is the safety zone.

7.6.1.1. The "B" cursor extends upward at an angle one-half (0.5) of a degree lower than the commissioned glide path angle, and ends at an altitude of 250 feet below the established glide path intercept altitude.

7.6.1.2. At some locations, the length of the "B" cursor differs because of differences in glide path angles or intercept altitudes for the two runways. When this occurs, use the longer "B" cursor length (termination point below the glide path). Using the common "B" cursor expedites use of PAR by reducing maintenance adjustments after a runway change and equipment turnaround.

7.6.1.3. The AN/GPN-22 "B" cursor extends to the length of the "A" cursor. However, safety limits apply for go-around instructions only between the point on the "B" cursor 250 feet below the established glide path intercept altitude and the normal termination point of the approach.

7.6.1.4. A dashed electronic cursor displays the "B" cursor on the elevation portion of the PAR scope for each precision approach. If an equipment malfunction prevents display of the cursor, a suitable substitute may identify the lower safety limit zone.

7.6.2. PAR Upper Safety Limit Zone. This zone is above the glide path. Its dimensions are the same as those established for the lower zone. The upper safety limit path starts at a point in space above the glide path and has the same geometrical relationship to the glide path as the lower path. The upper path rises at an angle one-half (0.5) of a degree greater than the commissioned glide path angle. There is no requirement to display the upper path on the scope.

7.6.3. PAR Lateral Safety Limits. These limits refer to distances on the azimuth portion of the PAR scope. There is no requirement to display lateral safety zone limits on the radarscope; however, a drawing or table depicting lateral safe limits must be available at each PAR position. **Table 7.1.** specifies PAR lateral safety limits and approximate displacement distances. The displacement distances are averages and actual distances will vary. Displacement distances for scan type radar are based on a maximum display range of 9 miles. The displacement relationship remains constant for tracking type radar, regardless of the display range selected (8, 15, or 20 miles). Use these distances as a guide for interpreting the precision radar displays.

Figure 7.1. Typical FPN-62 Elevation Display.

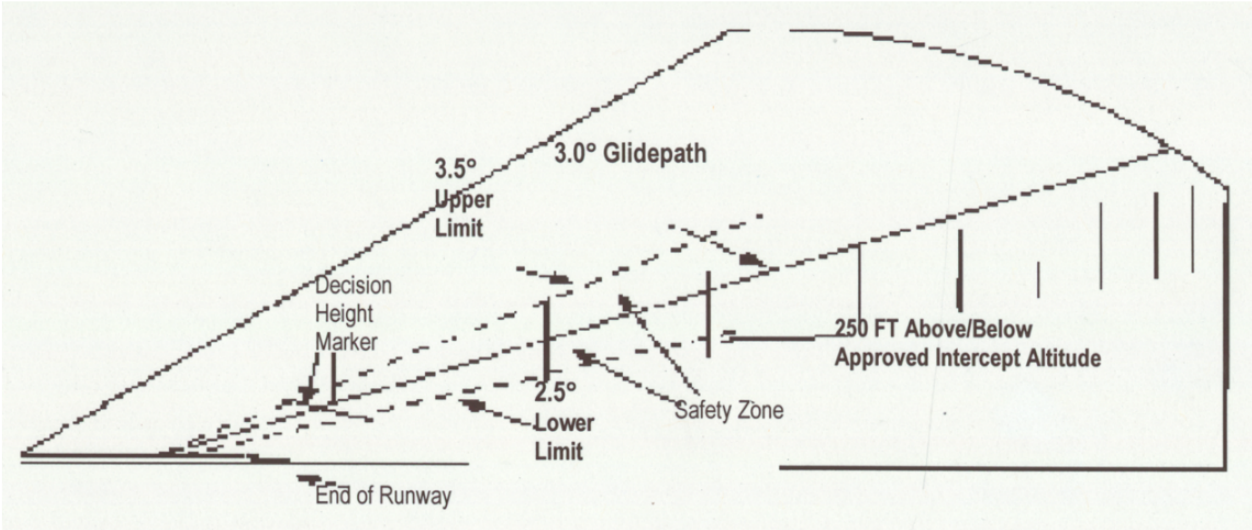


Table 7.1. PAR Lateral Safety Limits and Approximate Displacement Distance.

Range	Lateral Limit	Scan Radars	Tracking Radars
6	1200	3/4 inch	1/2
5	1000	3/4 inch	1/2
4	800	1/2	3/8
3	600	1/2	3/8
2	400	1/4	1/4
1	200	1/4	1/4
1/2	100	1/4	1/4

7.7. Decision Height (DH). Mark the DH on the PAR azimuth-elevation zone paths that represent the height above touchdown (HAT) zone elevation approved for the runway in use. Use grease pencil or fluorescent gummed cellophane tape to display the DH if not electronically displayed. Display only the DH for the runway in use (see **Figure 7.1.**).

7.8. Use Of Precision Approach Radar (PAR) to Monitor Instrument Final Approach Courses. In order to use PAR to monitor nonradar instrument approach courses, the PAR final approach course must coincide with the instrument final approach course from the final approach fix to decision height. Additionally, the PAR runway point of intercept (RPI) must be within 250 feet of the ILS or MLS RPI, and the commissioned flight check angle of the PAR must be within two-tenths of a degree of the ILS or MLS commissioned glide slope angle. Where the capability exists, the OG/CC will determine whether or not

there is a requirement to monitor approaches at their locations. If units choose to monitor approaches using the PAR equipment, follow procedures outlined in FAAO 7110.65.

7.8.1. Where PAR serves a runway that has an ILS, MLS, or visual glide slope indicator, the glide paths, glideslope angles and RPIs should coincide. An official flight inspection must determine coincidence. At locations where PAR, ILS, MLS, and visual glide slope indicators are not technically coincident according to AFJMAN 11-226 the host MAJCOM must decide whether to comply with the coincidence requirement. Where PAR, ILS, MLS, and visual glide slope indicators are not coincident, publish the deviation in the IFR Supplement. ***EXAMPLE***: RWY 30-PAR, ILS, and PAPI glideslopes are not coincidental.

7.8.2. When the mission warrants simultaneous approach monitoring, the CCTLR will outline procedures in an LOP. A radar final controller must not monitor more than four aircraft.

7.8.3. A radar final controller must not accept more than one aircraft or flight conducting a PAR or ASR approach.

7.9. Airport Surveillance Radar (ASR) Approach Procedures.

7.9.1. An adequate reference to the runway centerline must be available on the ASR indicator. The video map is an adequate reference when the commissioning flight check establishes permanent echoes or targets. Facilities without a video map must have alignment reflectors to verify course accuracy. Use two runway bracket reflectors or a centerline runway reflector to verify alignment of an overlay (if available), cursor or compass grid line for ASR approaches. MTI reflectors must be operational when conducting ASR approaches using MTI radar when video maps are not available or when using MTI to determine runway centerline reference.

7.9.2. Facilities must use a video map to depict the extended runway centerline. A map overlay (if available) may be used during map outages. Use the electronic cursor in an MPN-14 facility during a video map outage, if the cursor de-centering and bearing controls have protective covers.

7.9.3. There is no requirement for bracketing reflectors or a video map to provide ASR approaches using the AN/TPN-19. The system's fixed, displayed runway cursor is based on a set geographic location in relation to the ASR antenna and meets reflector, video map and cursor requirements.

7.9.4. Recommended altitudes for ASR approaches must be developed according to AFI 11-230 and be immediately available at each RFC, ASR indicator, and DBRITE (if used for surveillance approaches) position. The minimum descent altitude (MDA) or circling MDA published for the approach procedure is applicable in determining the point at which to discontinue recommended altitudes.

7.10. Radar Performance Checks. Each radar controller is responsible for determining, on a continuous basis, if the quality of their radar display and video fix accuracy is satisfactory for ATC purposes. Radar quality and performance are determined by comparing identified targets against data obtained during the commissioning flight check or by using minimum performance criteria determined jointly by maintenance and the CCTLR. Radar controllers must be familiar with commissioning flight check and minimum performance data, which can be obtained from the most recent ATCALS Evaluation Report or Flight Inspection Report. Chief controllers will make this information readily available to the controllers. Targets used for comparison checks should be generated by small aircraft, similar in size to those used during the commissioning flight check.

7.10.1. The radar performance check must be accomplished at least once each shift.

7.10.2. Automated ATC narrow-band radar systems shall not be used for operational purposes unless they are operationally validated (certified) by ATCALS maintenance personnel. Non-validated radar sensors (i.e., failed or out of tolerance) shall be inhibited from the system until validated for use. An entry shall be made on AF Form 3616 when the digitized radar system is validated for operational use and/or when a non-validated radar sensor is inhibited or restored to the operational system.

7.11. Air Base Defense. If a requirement exists, terminal ATC radar facilities perform radar surveillance functions to support early warning or ensure safe passage of friendly aircraft. Describe controller priorities and procedures, coordination requirements, and areas of responsibility in an LOP.

7.12. Optimum Antenna Tilt. Operate radar units with variable antenna tilt capability at the tilt angle prescribed by the official commissioning flight check or subsequent flight check data incorporated into the most recent ATCALS Evaluation Report.

7.13. Surveillance Antenna Operation in High Wind. ATC operations and maintenance will allow the antenna to freewheel whenever the wind exceeds the maximums defined in the system specific technical orders (TO) and ATC conditions permit. CCTLRs must define procedures in an LOP to notify maintenance personnel when wind forecasts exceed system operational capabilities. Procedures should also specify who is responsible for placing the antenna in the free-wheel mode.

7.14. Minimum Safe Altitude Warning (MSAW)/ Low Altitude Alerting System (LAAS). Radar facilities that have MSAW/LAAS capabilities will set MSAW/LAAS requirements in accordance with AFI 13-215, *ATC Radar Maps and Associated Systems.*

7.15. Diverse Vector Areas (DVA). When aircraft executing departure/climb-out instructions will be vectored below the MVA, the CCTLR, in coordination with the TERPS specialist, shall establish a DVA. (see FAAO 7110.65, Chapter 5, Section 6 and AFI 11-230). A DVA provides reduced separation from obstacles in accordance with TERPS diverse departure criteria.

7.15.1. When a DVA is established, the CCTLR shall prepare a facility operating instruction providing:

7.15.1.1. A complete description of the DVA, to include any restrictions and/or free vectoring areas. ***NOTE:*** Free vector areas are areas within a DVA in which random vectoring below the MVA/MIA is authorized.

7.15.1.2. Procedures for radar vectoring IFR departures below the MVA/MIA and within 3-5 miles of an obstacle, as applicable.

7.15.2. Depict sectors (areas) and/or radar routes/corridors within which positive course guidance is provided on radar video map displays.

7.15.3. Restrictions to a DVA shall be incorporated in accordance with AFI 11-230.

7.15.4. No IFR aircraft climbing within a DVA shall be assigned an altitude restriction below the MVA/MIA.

7.15.5. Headings shall not be assigned beyond those authorized for DVA prior to reaching the MVA/MIA.

7.15.6. For climb gradients in excess of 200 feet per nautical mile, controllers are required to issue the specific climb gradient and obtain pilot concurrence, prior to providing ATC navigational guidance on departure.

7.16. Designation of Sectors. The CCTLR develops airspace sectorization based on predominant traffic flows, altitude strata and controller workload. Ensure no two controllers provide service or advisories in the same airspace.

7.17. Multiple Radar Final Control (RFC) Requirement. The OG/CC specifies the wing's multiple RFC requirements (more than one RFC position) and ensures enough approaches are flown to maintain controller proficiency. Detail the multiple RFC requirements in the base airfield operations instruction.

7.18. Radar Equipment Requirements. Appropriate to assigned mission functions, a radar approach control or other terminal radar ATC facility has the following equipment:

7.18.1. Flight Progress Boards

7.18.2. RVR Equipment (for locations with CAT II ILS)

7.18.3. A landline system that includes an intercom between positions within the facility.

7.18.4. A radar display

7.18.5. Radio receiver and transmitter controls and consoles

7.18.6. Weather dissemination and display equipment

7.18.7. NAVAID remote status indicators (where applicable)

7.18.8. Voice recorders and adequate supply of digital/magnetic tapes/cassettes

7.18.9. Wind direction and speed indicators

7.18.10. Flight Data System (FDS), with a collocated clearance delivery position that has independent communications.

7.18.11. Coordinator positions. Authorize independent coordinator positions when necessary due to traffic complexity.

7.18.12. Secondary radar system

7.18.13. Video Mapper

7.18.14. Battery operated emergency lighting systems or flashlights

7.18.15. UHF and VHF emergency alternate radio system

7.18.16. Radar and tower coordination system

7.18.17. Automated Radar Tracking System (STARS, PIDP, EARTS, ARTS 3/A, etc.)

7.18.18. Headsets

7.19. PAR Associated Equipment Requirements. A readily observable and operational ASR display must be available in the operations room at facilities providing PAR only service. At locations where ASR displays are not available, a DBRITE maintenance monitor or television slaved from the tower DBRITE

meets the requirement. The ASR display will aid controllers during radar hand-offs between approach control and PAR. When the ASR display is out of service, PAR services may continue if the AOF/CC establishes procedures in an LOP.

7.20. Turn around for ATC Radar. CCTLRs will establish an LOP for notification of personnel working in or around radar units during turn-around operations.

7.21. Center Radar Presentation (CENRAP). CENRAP is a combined software, hardware, and procedures program to provide PIDP facilities with the host center radar presentation in the event of terminal radar system failure or non-availability. It was developed to provide a limited radar environment which allows a more expeditious means of controlling aircraft than utilizing nonradar procedures.

7.21.1. CENRAP-Plus. All standard terminal primary target radar separation standards shall apply when in CENRAP-Plus, except the use of Mode C altitude readout for vertical separation purposes.

7.21.2. CENRAP. The following separation criteria and limitations are intended to provide ATC service during periods of terminal radar failure. It is not intended to increase the level of air traffic services provided beyond that provided during normal operations.

7.21.2.1. Provide traffic advisories, workload permitting, and safety advisories to IFR and VFR aircraft when operating in CENRAP. In addition, when sequencing and/or separation services to VFR aircraft are normally provided, the CCTLR shall determine if these services can be provided to VFR aircraft without impacting services to IFR aircraft during CENRAP operations. Procedures for providing separation and/or sequencing services to VFR aircraft shall be included in an operating instruction if it is determined these services will be provided.

7.21.2.2. Separation requirements will be in accordance with FAAO 7110.65, Enroute Separation Criteria. The following criteria will also be applied:

7.21.2.2.1. Use vertical separation of 1,000 feet between instrument flight rules (IFR) aircraft, and between visual flight rules (VFR) aircraft when passing below or behind a heavy aircraft or B-757. Use 500 feet vertical separation between VFR aircraft and other VFR or IFR aircraft when heavy aircraft are not involved. The use of Mode C altitude readout for vertical separation purposes is not authorized.

7.21.2.2.2. Five mile lateral separation may be used in lieu of vertical separation. The lateral separation standard shall apply to all IFR aircraft and all VFR aircraft receiving sequencing and/or separation service.

7.21.2.2.3. Visual separation standards shall be applied in accordance with FAAO 7110.65, Chapter 7, terminal area guidance.

7.21.2.2.4. When visual separation cannot be provided, separate a departing aircraft from an arriving aircraft on final approach by 5 miles.

7.21.2.2.5. Provide five miles separation between aircraft conducting parallel ILS/MLS. Simultaneous parallel ILS and MLS approaches are not authorized when using CENRAP/CENRAP-Plus.

7.21.3. Certification and Performance Criteria. Perform an alignment check before using CENRAP in accordance with FAAO 7110.65, Chapter 5, alignment check guidance. Position reports from targets of opportunity shall be used if unable to comply with FAAO 7110.65 guidance. *NOTE:* A video/geo

map mark which aligns with the North Mark generated by the host computer shall be scribed on the video maps.

7.21.3.1. An entry shall be made with an appropriate explanation on AF Form 3616, as follows:

7.21.3.1.1. When required to switch to a CENRAP operation.

7.21.3.1.2. During periodic checks of CENRAP.

7.21.3.1.3. During periods of CENRAP training.

7.21.3.2. Advise pilots when the primary radar is out of service and CENRAP is in operation in accordance with FAAO 7110.109A, *Center Radar Presentation*. Phraseology: "PRIMARY RADAR OUT OF SERVICE. VFR SERVICES ARE AVAILABLE ONLY TO AIRCRAFT WITH TRANSPONDERS AND ARE LIMITED TO SAFETY ALERTS, TRAFFIC ADVISORIES, SEPARATION (if appropriate) AND SEQUENCING (if appropriate) TO (name of airport)."

7.21.3.2.1. The advisory may be omitted when provided on the automatic terminal information service (ATIS) and the pilot indicates having the ATIS information.

7.21.3.2.2. Issue a Notice to Airman discontinuing VFR separation services when using CENRAP provided these service are normally provided by the facility.

7.21.4. Radar Service Limitations.

7.21.4.1. Surveillance approaches are not authorized when using CENRAP.

7.21.4.2. Minimum safe altitude warning and conflict alert are not available with CENRAP or CENRAP-Plus.

7.21.4.3. Center weather data is not available when using CENRAP/CENRAP-Plus.

7.21.4.4. The normal PIDP video/geo map will be used with center radar input. Fix accuracy checks shall be completed in accordance with paragraph **5.1.3.**

7.21.4.5. Prearranged coordination agreements or directives which require the use of Mode C altitudes shall not be exercised during CENRAP operations.

7.21.5. Flight Check Certification Requirements.

7.21.5.1. CENRAP must be flight checked prior to initial operational use. If the FAA sensor feeding the CENRAP display has previously been flight checked, that flight check is sufficient.

NOTE: CCTLRs must still ensure that the FAA sensor in use provides adequate radar and altitude coverage for the type of operations it will be used for. The flight check must be completed with a FAA flight inspection aircraft or targets of opportunity to verify the minimum altitudes at which a CENRAP target can be tracked within the terminal airspace.

7.21.5.2. Records of CENRAP flight inspections shall be in accordance with AFMAN 11-225, *United States Flight Inspection Manual*.

7.21.6. CENRAP Maps.

7.21.6.1. Ensure that MVA and/or DVA maps have been developed to meet the enroute criteria of 5 NM separation (Buffer Areas) versus using terminal criteria of 3 NM separation within 40 NM of the radar antenna.

7.21.6.2. Facilities using only CENRAP-Plus do not need to make MVA/DVA map adjustments.

7.21.6.3. If the potential exists to alternate radar presentation between terminal and CENRAP radar presentation, either two MVA/DVA video maps will be developed to handle the individual situations or a single MVA/DVA map may be developed using 5 NM buffer throughout.

NOTE: If applicable maps have not been developed, radar vectoring shall not be authorized when CENRAP is being used.

7.21.7. Local Procedures.

7.21.7.1. A facility operating instruction must be developed establishing the following guidance (as a minimum):

7.21.7.1.1. The operational steps required to transition to and from CENRAP/CENRAP-Plus operations; include nonradar procedures to cover the period of the transition.

7.21.7.1.2. The minimum altitude(s) that targets can be tracked with CENRAP or CENRAP-Plus.

7.21.7.1.3. Procedures on the level of VFR services that can be provided.

7.21.7.2. Local procedures shall be developed between tower and approach to permit VFR arrival/departure operations in the event that VFR sequencing services normally provided to the primary airport cannot be accomplished.

7.21.8. An LOA with the host ARTCC is required prior to implementing CENRAP. Host Center responsibilities are outlined in FAAO 7110.109A, *Center Radar Presentation.* They include the following:

7.21.8.1. Facility managers shall provide the appropriate operational personnel with the following CENRAP/CENRAP-Plus information.

7.21.8.1.1. In the event that the host center has exceeded, or is about to exceed the number of ARTS/PIDP facilities that can be sent CENRAP/CENRAP-Plus for processing, terminate processing in the following order:

7.21.8.1.1.1. First, facilities engaged in CENRAP/CENRAP-Plus operations for proficiency or training.

7.21.8.1.1.2. Second, facilities with the lowest level of existing /projected traffic.

7.21.8.2. Termination of CENRAP/CENRAP-Plus processing to the PIDP/ARTS facility(s) shall not take place until the PIDP/ARTS facility has been notified and adequate time has been provided to prepare for the loss of center target information.

7.22. FAA/USAF Contingency Plan Agreements. The purpose of an FAA Parent Facility Contingency Plan, developed according to FAAO 1900.47A, *Air Traffic Services Contingency Plan*, is to mitigate impact to the National Airspace System (NAS) in the event of an ATC facility's loss of ability to provide ATC services. The FAA Parent Facility Contingency Plan should address reciprocal support between USAF and FAA approach control facilities to assume each other's enroute/approach control services as

much as feasible, in the event of a contingency involving equipment failure. These agreements should also address requirements for FAA assumption of USAF facility airspace, in the event of temporary facility closure or a need to temporarily curtail operating hours, due to circumstances such as deployments or critical staffing levels.

7.22.1. The Air Traffic Services (ATS) contingency plan authority is an agreement authorizing inter-facility cooperation to proceed with the contingency plan development. For USAF locations, the OG/CC will sign these agreements in lieu of the Facility-2 Air Traffic (AT) Manager and Facility-2 Airway Facilities (AF) Manager.

7.22.2. The support facility operational capability level (OCL) procedures should encompass each support facility's OCL site specific procedures, contain customized checklists and detailed data or procedures necessary to activate and support the parent facility contingency plan.

7.22.2.1. The information contained in section 3, *Then Do This,* should incorporate a checklist tailored to each individual facility. Include detailed procedures (including nonradar, if required) for departures, arrivals and enroute operations to/from the terminal area, adjacent areas and inter-facility coordination required to accomplish it.

7.22.2.2. The section labeled *Information and/or Actions* common to all facilities may contain general guidance that all facilities need in case of the parent facility's OCL declaration. Outline procedures for reporting to the Air Traffic Control System Command Center (ATCSCC) when the transfer control of airspace has been stabilized.

7.22.2.3. Each procedures document contains administrative and operational data attachments needed to activate the contingency plan. Attachments include:

7.22.2.3.1. Map of Assets. This is a geographical depiction of physical assets, frequency service volumes, etc. and is used as a tool for developing airspace divestment charts.

7.22.2.3.2. Data Tables. Ensure this contains specific telephone, frequency, navigational facilities and other similar types of physical assets.

7.22.2.3.3. Airspace Divestment Charts. Geographical depiction of airspace delegation derived from parent and support facility map of assets.

7.22.2.4. Additional attachments include maps depicting departure and arrival routes are permitted, as long as detailed procedures are outlined within the actual plan (section 3, *Then Do This*). Ensure requirements within Section 3 and the attachment match.

7.22.2.5. Other very important areas to include are:

7.22.2.5.1. Facility Operating Hours (i.e., when will facilities not be available to participate in the contingency plan).

7.22.2.5.2. The number of days the facility can sustain continuous operations (24 hours, 7 days per week) before augmentations is required.

7.22.2.5.3. A statement that USAF air traffic controllers are deployable assets and can be deployed at any time, affecting the terms of the agreement.

7.22.2.5.4. Limitations of equipment (i.e., radar and radio coverage, control positions available, if any, and options for parent facility controllers to augment USAF staffing, and accepted impact on routine services.

7.22.2.5.5. Due to the uncertain ties regarding automation capabilities, facilities should address the use of automated inter-facility handoff procedures and/or the use of manual hand-off until automation capabilities are verified.

7.22.2.5.6. Units will forward proposed support facility authority and support facility OCL procedures to MAJCOM for approval prior to implementation. The request for approval must be signed by the OG/CC (or equivalent) and must contain one of the following statements:

7.22.2.5.6.1. Draft requirements (if approved) can be accomplished within existing resources; or

7.22.2.5.6.2. Additional (personnel, equipment, funds etc.) resources will be necessary.

7.22.2.5.6.3. A mission impact statement (will it affect the efficiency/aircraft movement of training mission aircraft at your base?).

7.22.3. Do not enter into the plan if:

7.22.3.1. The support facility agreement is not written to a level that, stand alone, provides the tool to transition to/from the contingency plan.

7.22.3.2. Entering into an agreement will require additional equipment or manpower that you are not funded for or currently do not have available. USAF units may support more than one parent facility. ***EXAMPLE:*** An approach control could support two separate ARTCC facilities, or two USAF RAPCON facilities could mutually support a single ARTCC facility. Units must use caution when entering into more than one support facility agreement. Ensure support responsibilities do not overlap or override another plan in addition to units acting as a support facility.

Chapter 8

SPECIAL OPERATIONS AND SUPPLEMENTAL PROCEDURES

8.1. Exercises. Wing officials must brief the AOF/CC at least 48 hours in advance of exercises that involve any ATC facility or the airport controlled movement area. The AOF/CC must approve, in advance, exercises that include removing controllers to alternate facilities or to shelter areas. Consider traffic volume and service limitations when coordinating these exercises.

8.1.1. WS/SC must ensure ATC facility participation does not degrade services. WS/SC may interrupt or discontinue facility participation in any exercise if flight safety is in question or it interferes with the recovery of emergency aircraft.

8.1.2. ATC personnel may wear gas masks in support of exercises/inspections, consistent with wing requirements and flight safety provided a non-masked safety observer is present. The safety observer must be facility rated and cannot be assigned to any position other than WS. The safety observer will have the authority to direct controllers to remove gas masks in the interest of flight safety. When an aircraft declares an emergency or is in distress, controllers in direct communications with the aircraft shall remove the gas mask.

8.2. Aircraft Arresting Systems. Where the Air Force is responsible for control tower services, an LOP must define the following:

8.2.1. Coordination between agencies involved in operating the arresting systems.

8.2.2. Configuration of arresting systems.

8.2.3. Intervals to use when sequencing aircraft for successive engagements.

8.2.4. Procedures for remotely controlled arresting systems.

8.2.5. Responsibilities concerning use of aircraft arresting systems.

8.2.6. A training program to include the location, capabilities, and procedures for all installed arresting systems.

NOTE: OG/CC may establish multiple system priorities/configuration to meet local operational requirements.

8.3. Supervisor of Flying (SOF). When the SOF performs duties in an ATC facility, describe details in an LOP. When advice is extremely technical, or when the SOF feels that relay of information by the controller could cause an unacceptable delay, the SOF coordinates with the facility watch supervisor and transmits directly to the affected aircraft. Instructions should be limited to preventing a mishap. The SOF must not perform ATC functions or transmit ATC instructions or clearances to an aircraft. A person who commandeers an ATC frequency assumes responsibility for separation of aircraft.

8.4. Aircraft Priorities. The OG/CC establishes local aircraft operational priorities in the base Airfield Operations Instruction. Locally developed operational priorities must not take precedence over priorities listed in FAAO 7110.65 and AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials.*

8.5. Reduced Same Runway Separation (RSRS). USAF authority for establishing RSRS is designated in FAA Order 7110.65, paragraph 1-1-9. Accordingly, MAJCOM/DOs are responsible for establishing RSRS criteria for their specific commands.

8.5.1. RSRS criteria is based on aircraft characteristics, aircrew training requirements and the responsible air traffic controllers' ability to ensure application of established separation.

8.5.2. Unit level application of RSRS must be developed by affected air traffic control personnel and user units, specifically outlined in either the base airfield operations instruction or a wing operations letter, and approved by the MAJCOM prior to implementation.

8.6. Radar In-Trail Recovery.

8.6.1. Radar in-Trail recovery procedures must be coordinated through the AOF, Operations Group (and host nation, if required,) approved by the MAJCOM, and detailed in the base airfield operations instruction. If the FAA provides approach services, procedures must be contained in an LOA and signed by all appropriate individuals. Procedures must address the following:

8.6.1.1. Recovery procedures and notification requirements (to include flight lead coordination of trail recovery with ATC prior to taking spacing).

8.6.1.2. Missed approach/break-out/go-around procedures

8.6.1.3. Lost communications procedures

8.6.1.4. Spacing requirement within/between flights

8.6.1.5. Radar In-Trail recoveries will not terminate in PAR or ASR approaches

8.6.1.6. Radar In-Trail recovery is limited to a maximum of four aircraft.

8.6.1.7. Aircrews conducting radar in-trail recoveries are responsible for their own separation between elements of their flight while on final for full-stop landings. To ensure appropriate departure separation, multiple practice radar in-trail approaches that do not terminate with a full-stop landing shall be conducted only in VMC. During practice approaches in VMC conditions, after an executed low approach/landing, the flight is responsible for their own separation until ATC initiates flight split-ups for individual control on departure.

8.7. Unlawful Seizure of Aircraft. AFI 13-207, *Preventing and Resisting Aircraft Piracy (FOUO),* provides guidance regarding unlawful seizure of aircraft. An LOP must define the base response to hijack or theft attempts and identify a single base agency to receive ATC notification. Limit tower responsibilities to:

8.7.1. Immediately activating the primary crash alarm system, or notification via landline

8.7.2. Issuing current position information to fire/crash, security police, base rescue, etc.

8.7.3. Assisting the on-scene commander by forwarding updated information and relaying any orders or instructions

8.8. Min-Comm/Comm-Out. Departure/inbound procedures for minimum-communications and communications-out operations must be established in an LOP and require MAJCOM approval prior to implementation. Procedures that task or involve the FAA must be defined in an LOA.

8.9. Night Vision Device (NVD) Use for ATC .

8.9.1. NVDs, as specified below, can be used as an aid for air traffic controllers to assist in maintaining air traffic situation awareness and airfield surveillance during periods of aircraft operations at airfields with reduced lighting configurations.

8.9.1.1. NVDs used for ATC purposes must be binocular type and must not be affixed to any head strap, helmet or any other retention device.

8.9.1.2. Minimum acceptable NVD binocular optics will be comprised of two Generation III image intensifier tubes and two objective lenses/eye pieces.

8.9.2. Procedures for NVD use for ATC must be published in the Base Airfield Operations Instruction, and any other appropriate LOPs. As a minimum, the following areas must be addressed:

8.9.2.1. Scheduling procedures.

8.9.2.2. Notification/coordination requirements, i.e. publication of NOTAMs, inclusion of remarks in FLIPS, etc.

8.9.2.3. Weather/lunar illumination requirements.

8.9.2.4. NVD taxi routes (ground vehicle and/or aircraft) and NVD Traffic Pattern, to include pattern entry/re-entry points.

8.9.2.5. Traffic pattern/flow restrictions, i.e: maximum traffic density, cut-offs for returning to normal lighting configurations for arriving non-participants, etc. NOTE: Nonparticipating aircraft will not mix with participating NVD aircraft in any traffic pattern or on any controlled movement area

8.9.2.6. Limitations on ATC separation responsibilities.

8.9.2.7. Termination/Restart procedures for:

8.9.2.7.1. Transitions between reduced and normal airfield lighting configurations to accommodate nonparticipating arrivals/departures.

8.9.2.7.2. Emergency Knock it off/termination .

8.9.2.8. Airfield lighting configurations (may vary to reflect mission/force protection requirements)

8.9.2.9. Internal tower cab lighting requirements.

8.9.2.10. Aircraft lighting requirements.

8.9.2.11. Vehicle lighting requirements. Vehicles operating lights-out during periods of reduced airfield lighting should mount an IR strobe on the vehicle's roof so tower/aircrew can see the vehicle on the airfield. Vehicles are still required to meet AFI 13-213 requirements to maintain radio communications with the control tower while operating within the movement area. Vehicle operations should be kept to a minimum during periods of reduced airfield lighting.

8.9.3. Air traffic control personnel (military/civilian) shall be trained in the proper use of NVDs. Identify NVD tasks on AF Form 797 with applicable training references (TR). Be sure to also include tasks that reflect use of associated equipment. The Chief Controller will determine applicable review training requirements and schedule appropriately.

8.9.4. Night Vision Device (NVD) for ATC Use During Aircrew NVD Training Missions. NOTE: There are currently no exceptions to FAR 91.209 granted by the FAA allowing aircraft lights out operations within any tower surface area airspace class within the U.S.

8.9.4.1. Overseas locations must check and comply with host-nation requirements/restrictions for airfield/aircraft reduced lighting.

8.9.4.2. Current NVD optics capabilities are insufficient to allow controllers to ensure visual separation between aircraft at every location within tower's designated airspace at all times under the best of conditions. Due to this fact and that many environmental factors e.g. nearby facility, street, and city lighting, etc., remain beyond the control of ATC and can greatly degrade NVD utility, NVDs shall not be used to provide positive air traffic control within the tower surface area.

8.9.4.3. DELETED

8.9.5. Contingency Operations. Take control tower and airfield layout into account when establishing control procedures. Host-nation control towers are often very different than the normal USAF standard and may have features that limit or prevent the use of NVDs (i.e., the quality of the glass in the control tower, ambient lighting, type of ground operations being conducted, and type of communications equipment, etc). During contingency operations, the designated operations group commander has waiver approval authority IAW paragraph 1.2.4.

8.10. Explosives Detection K-9 Teams.

8.10.1. CONUS Locations, Alaska, Hawaii and Guam. ATC facilities will take the following actions if they receive a civil aircraft request for the location of the nearest explosives detection K-9 teams:

8.10.1.1. Relay the pilot's request to the FAA Washington Operations Center, ADA-30, via telephone (DSN 851-3750 and Commercial (202) 267-3333) providing the aircraft's identification and position.

8.10.1.2. ADA-30 will provide the ATC facility with the nearest location. Have ADA-30 standby while relaying the information to the pilot.

8.10.1.3. After determining the aircraft wishes to divert to the airport provided, the ATC facility will find out the estimated time of arrival (ETA) and advise ADA-30.

8.10.1.4. If a military installation has an explosives detection K-9 team, during emergency situations and with the concurrence of base officials, advise the pilot that such service is available.

8.10.2. Overseas Locations. ATC facilities receiving a request from a military or civil aircraft must take action according to local resource protection plans and guidance received from local military authorities in accordance with host nation agreements.

8.11. Parachute Jump Operations.

8.11.1. Define operational/procedural needs to conduct parachute jump operations in an LOP with parachute jump organizations or responsible individuals. As a minimum, the LOP should contain:

8.11.1.1. The description and the location of the jump zone(s) and the conditions of use.

8.11.1.2. The activity schedules.

8.11.1.3. The maximum jump altitudes (MSL).

8.11.1.4. Notification procedures.

8.11.1.5. Any other items pertinent to the needs of the ATC system and the users.

8.11.2. Areas designated as permanent jump sites in an LOP may be used repeatedly to minimize coordination. Specific authorization or notification is still required, but not necessarily for each jump.

8.11.3. To the extent possible, advise parachute jumping organizations or responsible individuals of known high traffic density areas or other airspace where parachuting may adversely impact system efficiency, such as IFR departure/arrival routes, airways, VFR flyways, military training routes, etc.

8.12. Prohibited/Restricted Areas. FAAO 7110.65 prescribes separation requirements from special use and ATC assigned airspace. In recognition of the fact that several prohibited/restricted areas are established for security reasons or to contain hazardous activities not directly involving aircraft operations, provision is made for exempting these areas from vertical and radar separation minima if the areas have been identified by facility management. The intent in prescribing separation requirements from special use and ATC assigned airspace is to establish a buffer between nonparticipating aircraft and aircraft operations inside special use or ATC assigned airspace. As such, the buffer serves as an extra safety margin in consideration of possible operational, procedural, or equipment variances. Application of the separation prescribed in FAAO 7110.65 is not considered necessary whenever the prohibited/restricted airspace does not contain aircraft operations because these areas typically provide an internal buffer based upon the exact type of activity taking place. In addition, instrument procedures protected areas cannot violate or penetrate special use airspace (SUA) without meeting criteria established in AFI 11-230. In making a determination to exempt specific areas, facility managers shall be guided by the following:

8.12.1. Determine the exact nature of prohibited/restricted area utilization through direct liaison with the using agency.

8.12.2. Coordinate with MAJCOM OPR for ATC during the analysis of area utilization.

8.12.3. The following types of activity are examples of restricted area utilization which often will not require application of separation minima:

8.12.3.1. Explosives detonation

8.12.3.2. Ground firing of various types

8.12.3.3. Drone and other unmanned aircraft flight operations

8.12.3.4. Aircraft operations associated with the above in a safety, observer, or command and control capacity only; i.e., the aircraft is not directly engaging in activity for which the airspace was designated and is operating visual flight rules (VFR).

8.12.4. If area utilization varies between aircraft operations and other types of activity as described above, do not exempt the area from separation requirements unless a significant operational advantage can be obtained.

8.12.5. Restricted airspace with the same number but different letter suffixes are considered to be separate restricted areas. Units may treat these types as one restricted area for the purpose of identifying areas for exemption from separation requirements in order to simplify application of separation minima unless a significant operational advantage can be obtained.

Chapter 9

PROCEDURES FOR ESTABLISHING VFR FLYING AREAS AND TRAFFIC PATTERNS

9.1. VFR Traffic Patterns:

9.1.1. When designing traffic patterns, be sure that:

9.1.1.1. They conform to the requirements of paragraphs **9.2.** and **9.3.** below except when safety or noise problems require adjustments.

9.1.1.2. No unusual or unnecessary maneuvering is required.

9.1.2. When traffic patterns for two or more airfields are close together or overlap, coordinate letters of agreement regarding safe operations. The Airfield Operations Board reviews these LOAs.

9.1.3. Coordinate revised traffic patterns with ATC agencies and the MAJCOM.

9.2. VFR Traffic Pattern Types:

9.2.1. Establish rectangular and overhead patterns at each Air Force airfield, joint-use airfield and overseas airfield controlled by the Air Force. Use letters of agreement to provide the desired traffic pattern at airfields under the control of foreign governments or agencies other than the Air Force. Usually, traffic patterns use a left-hand traffic flow; however, you may use right-hand patterns if required.

9.2.2. Develop closed traffic procedures. Closed traffic is a maneuver that allows an aircraft making successive patterns to stay in the normal traffic flow without exiting and reentering the pattern.

9.2.3. Bases may establish an additional rectangular pattern for light aircraft. This pattern provides adequate separation from normal rectangular and overhead pattern traffic.

9.2.4. Establish separate helicopter patterns, if needed. You don't need these patterns if the rectangular or light aircraft patterns meet operational needs without creating congestion.

9.3. VFR Traffic Pattern Altitudes. Establish traffic pattern altitudes to the nearest 100-foot level relative to the airfield elevation. For example, the traffic pattern altitude for a 1,000-foot traffic pattern with a field elevation of 245 feet would be 1,200 feet above mean sea level. Traffic pattern altitudes must provide a minimum of 300 feet obstruction clearance. Use the traffic pattern airspace criteria as depicted in FAAO 7400.2, figure 6-3-11, Traffic Pattern Airspace, to determine the area to be evaluated for obstacle clearance.

9.3.1. Rectangular pattern: 1,000 feet above field elevation (1,500 feet if a lower altitude causes a noise problem).

9.3.2. Overhead pattern: 1,500 feet above field elevation (2,000 feet if the 1,500 foot rectangular pattern is used or if a lower altitude causes a noise problem).

9.3.3. Light aircraft pattern: At least 500 feet above field elevation. In all cases, ensure adequate separation from normal rectangular pattern traffic.

9.3.4. Helicopter patterns: Establish specific altitudes that ensure adequate separation from traffic in other patterns.

9.3.5. Closed traffic: The altitude specified usually corresponds to the altitude of the pattern for which closed traffic is established.

9.4. Environmental Impact Analysis and Air Installation Compatible Use Zone (AICUZ). Before making changes to local VFR flying areas, VFR traffic patterns or altitudes, analyze proposals for impact based on the published AICUZ study and potential environmental impact. Submit AF Form 813, *Request for Environmental Impact Analysis*, to the base civil engineering environmental planning staff for approval (see AFI 32-7061, *The Environmental Impact Analysis Process*). The Environmental Impact Analysis Process must be completed prior to making any decision to implement the proposed change. Advise the base civil engineer when the proposed change has been implemented.

PART 3

AIR TRAFFIC CONTROL TRAINING

Chapter 10

ATC TRAINING PROGRAM

10.1. Purpose. The purpose of training in the ATC career field is to qualify air traffic controllers for position certifications, facility ratings, skill-level advancement and facility management positions to support peacetime operations and wartime readiness. ATC training programs consolidate and standardize common training tasks and doctrine while integrating Air Force, MAJCOM and unit directives.

10.2. Front Load Training (FLT). (Does not apply to AFRC). FLT is a structured training program designed to introduce a defined amount of knowledge and/or performance training requirements at the beginning of a controller training program. FLT is required for all controllers. CCTLR's will establish time limits for all individuals in upgrade/qualification training, prior and non-prior experience, in a like facility. CCTLR's will also determine whether or not prior and non-prior controllers will complete the FLT training tasks in a classroom or crew environment.

10.2.1. Block I covers Local Area

10.2.2. Block II covers facility equipment.

10.2.3. Block III covers general ATC practices.

10.2.4. Block IV covers practical application.

10.2.5. Common items without performance variance from position to position can be certified in the first three blocks and revalidated as part of the initial evaluation to ensure compliance with standards. The fourth block will remain open until the individual has demonstrated the ability to apply the items in a live and/or simulated environment. The objective is to send a trainee to live traffic with a good understanding of phraseology, separation, and control practices prior to working live aircraft.

10.3. OI Construction. Effective training requires the execution of a detailed training OI. An effective training OI must establish policy and procedures for implementing the specific training program and define the responsibilities of all personnel involved in the program. Each OI must expand on those areas where further explanation is required and standardize local training procedures. Each unit must develop, implement and administer each program according to this instruction, AFI 36-2201 Volume 1-6, *Air Force Training Program* and AFMAN 36-2234, *Instructional System Development.* As a minimum, address the following areas:

10.3.1. Responsibilities. Training must be a coordinated effort between all members of the ATC staff. As a minimum, outline the responsibilities (those applicable) of the AOF/CC, CCTLR, CATCT/ACATCT, CSE/ACSE or TSN/ATSN, CATCA, supervisor, watch supervisor (WS), trainer and trainee.

10.3.2. Upgrade Training. Outline program schedules, administrative actions (PC III process, etc.) and additional instructions (documentation, frequencies of evaluations, requests for certification) for skill level advancement. Additionally, CATCTs will integrate Career Field Education Training Plan

(CFETP), ATC Training Series (ATCTS), computer based training presentations (CBTs), simulator programs, non-radar programs and command/local training products into certification guides to meet upgrade training requirements for 5-skill level.

10.3.3. Recurring Training. Describe what, how and when recurring training is administered and documented. Include mandatory training outlined in Air Force and MAJCOM instructions and any additional training necessary to ensure personnel remain current on local skill requirements.

10.3.4. Review Training. HQ AFFSA, MAJCOMs or facility personnel may initiate review training. The CATCT will ensure all review training is prepared and conducted according to appropriate tasking directives.

10.3.5. Qualification Training. Outline responsibilities, program schedules, necessary training materials and any local prerequisites to be completed.

10.3.5.1. Management Training. Establish procedures on how management training will be conducted, who will accomplish the training, documentation, frequency of evaluations and track the progress of each duty position. As a minimum, identify AOF/CC/DO, CCTLR, CATCT, CSE or TSN, CATCA and ATCSS, TERPS, WS and Trainer.

10.3.5.2. Facility Rating/Position Certification Training. As a minimum, establish the following:

10.3.5.2.1. Position certification/award of SEI/facility rating time limits (in calendar days).

10.3.5.2.2. Requests for certification and processing channels.

10.3.5.2.3. Local documentation requirements to include training products and automation procedures if used.

10.3.5.2.4. Radar/tower simulator usage and nonradar training requirements.

10.3.5.2.5. Prerequisites necessary to control live traffic as a trainee. Identify the validation process and who will determine the trainee's ability.

10.3.6. Recurring/Review Training and Testing. Establish monthly proficiency training and test schedules, pass and fail criteria, review training, retest procedures and follow-up actions. Include required recurring and review training areas as appropriate. Identify individual responsibilities and procedures in the training and testing process.

10.3.7. Newcomers Indoctrination. CCTLRs must ensure a Newcomer Indoctrination Program is developed and implemented which is applicable to both apprentice and skilled personnel. Use AT M-08, *Facility Indoctrination/Orientation Guide*, as a reference to develop the program.

10.3.8. Training Review Board. Establish administrative policies and procedures to include meeting schedule, board membership, agenda and dissemination of minutes in accordance with AFI 13-204, *Functional Management of Airfield Operations*.

10.3.9. Weather Training. As a minimum, outline tower controller responsibilities in Cooperative Weather Watch to include Tower Visibility Observation Training and Certification.

10.3.10. Non-Radar Training. At locations where individuals are certified in a radar control position (excluding Radar Final Control (RFC), outline non-radar training to include Center Radar Presentation (CENRAP) procedures (if applicable) using the radar simulator to the maximum extent possible. Identify non-radar training required for position qualification, recurring and review training and certi-

fications. CCTLRs must coordinate with the CATCT to ensure the non-radar training program conforms to ISD principles and includes non-radar simulation scenarios in each applicable PCG.

10.3.11. Automation and Simulation Training. Identify all uses of simulators or any other training devices utilized in ATC training to include upgrade, qualification and recurring training. Outline procedures when automation/simulation is used to supplement position certifications. Outline automation/simulation proficiency requirements for all ATC personnel.

10.3.12. Training Program Review. Outline procedures to periodically review and document locally developed and required training products used in facility training. As a minimum ensure the following products are reviewed:

10.3.12.1. Master Training Record. CATCTs must maintain a master training record in each facility to ensure training records remain current according to applicable training references. The CATCT must continuously update the master training record to ensure accurate training products are available to all facilities and work centers.

10.3.12.2. Technical References (TR). HQ AFFSA develops, maintains and publishes the Air Force Master Task and Technical Reference (MTTR) and Master Reference Index (MRI). CATCT should review the current MTTR for changes and review all TRs for applicability to their facility. CATCTs must incorporate local technical and task references into the AFFSA developed MTTR listing and maintain a copy for each facility. The MTTR and MRI may be maintained in the master training record or automated on the AOF Web. The CFETP/STS and AF Form 797 comprise the ATC Master Task List (MTL).

10.3.13. DELETED

10.3.14. DELETED

10.3.15. Stop Training. Identify circumstances in which the CCTLR will authorize Stop Training time and outline documentation procedures. The facility CCTLR should only consider the use of stop when further training is not possible or is detrimental to the mission. The facility CCTLR will determine the need for placing an individual in stop training.

10.4. Position Certification Guide (PCG) Development. Develop a separate guide for each position requiring certification. Certification guides must identify training requirements, technical references, performance objectives, standards and simulation requirements. Technical References must be broken down to the lowest denominator for each task item (i.e., FAAO 7110.65, paragraph 5-7-1, Note 2). As a minimum, each guide must identify all tasks listed in the applicable, Career Field Education and Training Plan (CFETP), and AF Form 797, Job Qualification Standard Continuation/Command JQS, for the applicable position or area, along with the objectives.

10.4.1. PCGs are designed in a block or blocks of instruction. Initial block overview must identify block objective requirements, knowledge and performance standards, and recommended time limits. The number of blocks within each guide depends on the training requirements and complexity of the position.

10.4.2. The CCTLR and CATCT (or TSN) will conduct a position task analysis, (see AFMAN 36-2234, *Instructional System Development*), for each position in the facility to define all tasks, knowledge and technical references necessary to fulfill the training requirements for a position certification. CFETP outlines general core requirements and is the main source document for training;

however, units must add locally unique training requirements to ensure the position analysis is comprehensive.

10.4.3. Identify all task items, knowledge items and technical references required to complete a task. Align the items in a logical order for training (simple to complex). Ensure that task and knowledge items directly support the training objective.

10.4.4. DELETED

10.4.5. The CCTLR is required to identify objective requirements, knowledge and performance standards, and time limits to obtain position certification.

10.4.6. Each PCG must contain the following:

10.4.6.1. All CFETP, and AF Form 797 knowledge/task requirements with applicable TRs that require training. Training references must coincide with those listed in the MTTR and should address the specific paragraph for each task item. **NOTE:** a reference to MTTR line number fulfills this requirement.

10.4.6.2. Objective statements for each task (see AFMAN 36-2234, *Instructional System Development).*

10.4.6.3. Applicable Air Traffic Control Training Series (ATCTS) and Computer-Based Training (CBT) products.

10.4.6.4. Simulator and non-radar scenario problems that support training.

10.4.6.5. Measurement methods that validate the objective (i.e., oral, written or performance examination).

10.4.6.6. Time limits based on ATC experience and skill level for each block.

10.4.6.7. A determination of the training required for the trainee to work live traffic.

10.4.7. Position Certification Time Limits. CCTLRs specify position certification time limits for each position in the facility in calendar days. Time limits must be established for all individuals in upgrade/qualification training based on prior and non-prior experience in a like facility. Review PCG time limits annually and make adjustments accordingly. Base time limits on the average time required to complete position certifications during the preceding calendar year. NOTE: CCTLR's may adjust PCG time limits more often than annually if mission requirements/changes dictate. Time adjustments should be kept to a minimum and must be based on measurable assessments of prior trainee performance. Document all time adjustments in the TRB.

10.4.8. Position Certification Guide Utilization. The CSE/TSN will test and evaluate trainees on their attainment of required knowledge and proficiency against established standards for each CFETP/AF Form 797 task item at the end of each block of instruction and completion of the PCG. An unqualified 3-level must meet the block objectives before officially entering into the next block.

10.5. Development of ATCTS. HQ AFFSA/XAOT develops and maintains Air Force ATCTS; coordinates and validates training publications with agencies having collateral interests in specific publications; develops revisions to ATCTS due to changes in prescribed regulations, TOs, directives, or policies; and ensures new publications are announced in the Air Force Publishing Bulletin.

10.5.1. MAJCOM and unit developed ATCTS. MAJCOMs and units should develop ATCTS to support locally unique training needs using the Instructional System Development (ISD) process. These products shall not duplicate material presented in any Air Force training series.

10.5.1.1. Subordinate units shall forward locally developed training series to the parent MAJCOM for approval.

10.5.2. Index and Numbering**.** Index the ATCTS publications (including MAJCOM and unit developed) by using letter and number combinations. The letters "AT" shall be used to identifying the publications as part of the ATCTS. The next letter identifies the major category: Air Traffic Control Management (M), Control Tower Operations (T), Radar and Nonradar Operations (R), General (G), Equipment (E), Combat Skills (C) and, Job Performance Aid (JPA). The number identifies a specific publication within a given category.

Chapter 11

UPGRADE TRAINING

11.1. Definition. Upgrade training is necessary to be awarded a higher skill level. Requirements differ with each skill level and career field and always involve specific career field learning and completion of Air Force time in grade and rank requirements.

11.2. Initial Training Evaluation. Supervisors must officially enter all personnel into training and ensure an initial evaluation is conducted on all newly assigned personnel. An initial evaluation is subsequently required at the beginning of each position of training, to identify tasks the trainee can already perform based upon knowledge gained in their previous certification. As a minimum, the first initial evaluation will include a review of the following, Part I of the CFETP, Master Training Record, Contingency and Wartime Training, and Supervisor and trainee responsibilities as outlined in local and AF governing directives. Document completion of all initial evaluations on the AF Form 623a or a suitable substitute.

11.3. Three-Skill Level Upgrade Training. The ATC 3-skill level is awarded when an individual completes the ATC Operations Apprentice Course at Keesler Technical Training Center or as a result of the recruiting process when an individual has successfully completed a formal DoD/DOT Air Traffic Control course.

11.3.1. Evaluate the adequacy of formal training by comparing it to the Specialty Training Standard (STS) in the CFETP.

11.3.2. Supervisors will report deficiencies to the technical school by documenting deficiencies on a Field Evaluation Questionnaire (FEQ) or by calling the Customer Service Information Line (CSIL), DSN 597-4566, at Keesler AFB.

NOTE: The CSIL is a 24-hour telephone line for supervisors to call when they have any questions about the training received at any technical training school. Questions are replied to within 5 working days. This system allows Headquarters Air Education Training Command (HQ AETC) to respond quickly to the concerns of the field supervisors.

11.3.3. The Graduate Assessment Survey (GAS) is a survey mailed to supervisors of ATC apprentice course graduates. The GAS provides the Technical School an initial assessment of the graduates overall ability as they enter the field.

11.4. Five-Skill Level Upgrade Training. Apprentice personnel must complete the requirements of this instruction, AFI 36-2201, 1C1X1 CFETP and obtain the necessary position certification/facility ratings prior to the award of the 5-skill level. Minimum training times will be a total of 9 months for retrainees and 15 months for normal upgrade training.

11.4.1. Control Tower - Local, Ground and Flight Data position certifications (CTO Rating).

11.4.2. Radar Approach Control (RAPCON) - Approach Control, Approach Assist and Arrival Control.

11.4.2.1. At locations where controllers routinely perform arrival control functions as part of an approach control function, individuals may be awarded SEI 364 as long as the following provisions are met:

11.4.2.2. Chief controllers outline the minimum standards necessary for award of the arrival control rating as part of a combined rating in the facility position certification guide and all training objectives and standards for the arrival control position are met.

11.4.2.3. Position Certification in Approach Assist. For SEI procedural guidance refer to AFMAN 36-2108, *Enlisted Classification.*

11.4.3. Ground Controlled Approach (GCA) - Arrival Control, Arrival Assist and RFC.

NOTE: The CATCT will coordinate with Base/Wing Training for award of the SEI when all requirements have been met.

11.4.4. DELETED

11.4.4.1. DELETED

11.4.4.2. DELETED

11.4.4.3. DELETED

11.4.4.3.1. DELETED

11.4.4.3.2. DELETED

11.4.4.4. DELETED

11.4.4.5. DELETED

11.4.4.6. DELETED

11.5. Additional Training Time. CCTLRs may approve additional training time for trainees who exceed position/qualification time limits. CCTLR extensions may not exceed 50 percent of the original time allotted for the position. CCTLRs extensions may be granted for each block or for the entire position. CCTLR extensions must be documented on an AF Form 623a or suitable substitute and maintained in the trainee's AF Form 623 until facility rating or position certification requirements are met. The MAJCOM OPR for ATC approves training beyond the CCTLR extension.

11.6. Seven-Skill Level Upgrade Training. Journeyman personnel must be a staff sergeant; complete 12 months upgrade training time and complete Computer-Based Instruction (CBI) course E6ACS1C171-000, Air Traffic Control Craftsman Course (training may begin on the first day of the promotion cycle) in order to become a craftsman. NOTE: Individuals in retraining status Code "G" are subject to the same requirements and must complete a minimum 6 months in upgrade training.

11.7. Training Evaluations. Trainers must accomplish training evaluations to document trainee progression towards tasks and objectives. Accomplish evaluations on trainees in position qualification and upgrade training, as a minimum, every 14 calendar days. Evaluations on other qualification/ management training (7-level and management positions) will be conducted once monthly, as a minimum. Evaluations must be submitted prior to the 5th calendar day of each month.

11.7.1. The following must be included in all position training evaluations (not necessarily in this order):

11.7.1.1. Name, inclusive dates of evaluation, position, position start date and total calendar days allowed for position.

11.7.1.2. Specific tasks covered during the evaluation period.

11.7.1.3. Status of trainee development. Assess the trainee's progress, or lack of progress toward objectives. Include deficient areas and strength's. Identify the cause(s) of unsatisfactory progress, if applicable.

11.7.1.4. Results of previous corrective actions.

11.7.1.5. Time spent in each category of training (live, simulator, non-positional).

11.7.1.6. Other comments. Include all interruptions to training (stop training days, to include reason).

11.7.1.7. Trainee's comments if necessary.

11.7.1.8. Identify specific action(s) to correct deficient areas or unsatisfactory progress, if applicable.

11.7.2. CCTLRs will identify and document, on AF Form 623a or suitable substitute, trainees who are not progressing satisfactorily as "experiencing difficulty in training" (EDIT) and in the training evaluation specify corrective actions to be taken. CCTLRs document on AF Form 623a or suitable substitute when a controller is no longer "experiencing difficulty in training." As a minimum, weekly evaluations will be conducted on personnel in EDIT status.

NOTE: Trainees may have deficient areas and still be progressing satisfactorily.

11.7.3. The trainee, trainer, WS, CATCT and CCTLR must review and sign all training evaluations. Additionally, the AOF/CC must review and sign training evaluations for trainees in EDIT status.

11.7.4. Seven-skill level training evaluations will be written and retained until the individual has been awarded the skill level. Seven-skill level training evaluations may be discontinued on individuals once all other requirements have been met and individuals are only waiting to complete 12 months in training time.

11.7.5. Maintain all training evaluations on apprentice personnel until the award of the SEI. Maintain training evaluations on prior rated controllers until the position certification is awarded.

11.7.6. Maintain each individual position certification evaluation in AF Form 623. Maintain all position certification evaluations until the facility rating encompassing the position certification is awarded. Retain facility rating evaluation form in training record until PCS or PCA.

11.7.7. Maintain all training evaluations on controllers in management training until management position qualified.

11.8. Apprentice Controller Training Progression .

11.8.1. Apprentice Controller Facility Assignment. Apprentice controllers completing technical training at Keesler receive training focused toward their initial facility of assignment (tower or radar). This focus should continue for apprentice controllers at their first duty station. Units must obtain MAJCOM approval prior to assigning an apprentice controller to other than their intended initial facility of assignment. MAJCOMs must coordinate with AFFSA/XAR prior to assigning apprentice controllers to the other facility and provide a copy of approval letters to HQ AFFSA/XA and HQ AFPC/DPAAD3.

11.8.2. ATC Apprentice Controller Database (Not applicable to ANG or AFRC). The CATCT/TSN shall provide quarterly updates to apprentice controller training information (name of trainee, training start date, SEI award date) using the Microsoft Access Database provided by AFFSA. Updates to database information are due to the MAJCOM by the 5th duty day of the month following the quarter. MAJCOMs shall upload unit level input to their consolidated database and forward that information to AFFSA/XAOT by the 15th duty day of the month following the quarter. Once individuals attain an SEI, further reporting is not required.

Chapter 12

QUALIFICATION TRAINING

12.1. Definition. Actual hands-on task performance training designed to qualify an individual in a specific duty position. It may occur during and after the upgrade training process to maintain up-to-date qualifications.

12.2. Management Training Guides. Units must use published Air Force Task Certification Guides (TCG) and Qualification Training Packages (QTP). Units may supplement Air Force TCGs and QTPs with MAJCOM and local requirements. CATCT's shall ensure a local Watch Supervisor , Trainer, CATCA and ATCSS Task Certification Guide is developed. The CATCT should work closely with the CCTLR and CATCA to ensure all required tasks, objective statements, and training references are included.

12.2.1. 13M1 Officers. Complete AT-M-11, Air Traffic Control Officer Guide, within 6 months of arrival at the first duty station. Complete AT-M-10, Airfield Management Training Guide, within 1 year after completion of AT-M-11. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.2. CCTLR. Complete the CCTLR portion of the AFJQS 1C1X1-002 and AT-M-05, CCTLR Task Certification Guide, within 6 months of initial assignment to the CCTLR position. The same requirement applies to individuals in CCTLR training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.3. CATCT. Complete the CATCT portion of the AFJQS 1C1X1-002 and the CATCT portion of AT-M-04, TSN Task Certification Guide, within 6 months of initial assignment to the CATCT position. The same requirement applies to individuals in CATCT training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.4. CSE. Complete the CSE portion of the AFJQS 1C1X1-002 and the CSE portion of AT-M-04, TSN Task Certification Guide, within 6 months of initial assignment to the CSE position. The same requirement applies to individuals in CSE training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.5. TSN. Complete the CSE and CATCT portions of the AFJQS 1C1X1-002 and the CSE and CATCT portions of AT-M-04, TSN Task Certification Guide, within 9 months of initial assignment to the TSN position. The same requirement applies to individuals in TSN training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.6. CATCA. Complete the locally developed CATCA TCG within 6 months of initial assignment to the CATCA position. The same requirement applies to individuals in CATCA training.

12.3. Management Training Documentation. The individual conducting the management training will document learning progression, as a minimum, every 30 calendar days on AF Form 623a or suitable substitute until completion.

12.3.1. Certification of TERPS knowledge/task items should be accomplished by a certified TERPS (SSgt 5-level or higher) specialist at the unit or by MAJCOM/HQ AFFSA TERPS personnel who have completed task certifier training.

12.3.2. Certification of ATC Systems Specialists (ATCSS) knowledge/task items will only be accomplished by a certified (SSgt 5-level or higher) ATCSS or CATCA. Certification of CATCA knowledge/task items will only be accomplished by a certified CATCA. If unit personnel are not available to certify the items, MAJCOM or HQ AFFSA ATCSS personnel who have completed task certifier training may certify the tasks. The unit commander, or delegated representative, must designate these certifiers in writing.

NOTE: MAJCOM personnel performing duties as task certifier must be delegated by the local unit in writing.

12.3.3. When management qualifications training and requirements have been accomplished, document the completion on the inside front cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.3.4. Management training should be conducted by the individual currently holding the management position. Task certification should be conducted by other staff members who have completed task certifier's training and are qualified on the appropriate section of AFJQS 1C1X1-002 as CCTLR, CSE, CATCT, or TSN. CATCA's task certification is completed by individuals signed off on locally developed AF Form 797's. When this is not possible, AFI 36-2201, Volume 3 Air Force Training Program On The Job Training Administration provides an exemption for air traffic control allowing individuals in one person shops, any person qualified to perform the task, who has completed certifier's training to certify management tasks. This exemption applies specifically to management qualification training where the same person may act as the trainer and the certifier when no other individual is available for certification. For example : Only one qualified chief controller exists in a facility, that person may act as a trainer and certifier. Also, AOF/CCs who have completed certifier's training should certify tasks in the applicable section of AFJQS 1C1X1-002. This can only be done when the AOF/CC is certified on the specific task or position referenced in AFJQS 1C1X1-002.

12.4. Trainer Qualification. Only position certified, trainer certified individuals are allowed to monitor trainees working live traffic. Qualifications for selection as ATC Trainer to train or monitor:

12.4.1. Must hold PAFSC 1C151 and above, GS-2152, or 13M. Controllers holding AFSC 1C131 may train or monitor 60 days after award of facility rating SEI.

12.4.2. Trainers must be position certified and/or facility rated prior to training an individual on a task.

12.4.3. Attend the Air Force Trainers Course.

12.4.4. Complete AT-M-01, Trainer's Qualification Training Package and local Trainer TCG.

12.4.5. Must be recommended by the supervisor, appointed in writing by the unit commander. (AOF/CC or CCTLR may appoint trainers if this responsibility has been delegated by the unit commander)

12.4.6. CCTLR's and CATCT's are authorized to document trainer certification on AF Form 3622, Air Traffic Control/Weather Certification and Rating Record.

12.5. Task Certifier Qualification. Must be appointed in writing by the unit commander (AOF/CC or CCTLR may appoint Task Certifiers if this responsibility has been delegated by the unit commander). Qualifications and responsibilities are outlined in AFI 36-2201 Volume 3, *On The Job Training Administration*. **NOTE:** ATC Trainer qualified personnel are authorized to certify tasks in the CFETP.

12.6. Weather Training. All tower controllers must receive local weather familiarization (to include tower visibility observation training) and participate in Cooperative Weather Watch (CWW) IAW AFMAN 15-111, *Surface Weather Observations*. Facility managers will ensure tower visibility observation training and certification is completed before controllers work a position unmonitored and documented in CFETP/STS, *ATC Operations*. Initial documentation of limited weather certifications will be documented on AF Form 3622 and is signed off by a designated weather examiner. Annual re-certifications are documented on AF Form 1098 and may be signed by the CSE (TSN).

12.7. Special Tactics Combat Control Team (CCT) Training. *CCT personnel (AFSC 1C2X1) require ATC qualification training in USAF, ANG, or AFRC facilities*. Each CCT member must meet medical qualifications for ATC duty and possess an Airman Written Test Report or Control Tower Operator Certificate. Training of CCT personnel will follow the same local requirements and guidelines as 1C1X1 personnel, except CCT personnel will not be awarded the SEI after completing facility rating. Combat Controllers, may work unmonitored at positions where they have earned certifications under direct supervision of a WS/SC. Combat Controllers may not be used to monitor or train 1C1X1 personnel.

Chapter 13

RECURRING AND REVIEW TRAINING

13.1. Definitions.

13.1.1. Recurring Training. Training provided to periodically review selected current operational procedures and techniques.

13.1.2. Review Training. Training conducted for the purpose of correcting specific operational deficiencies identified through performance evaluations, supervisory observations, trends, operational evaluations and other methods of detection. It also includes all new and/or revised portions of existing training material that apply to facilities.

13.2. Recurring Training Schedule. All controllers shall accomplish recurring and review training during the month indicated and/or scheduled by the CATCT. Individuals on leave, TDY, or other leaves of absences shall accomplish all recurring training requirements within 30 days after returning to duty. CCTLRs must establish procedures for personnel returning from TDYs, Duty Not Involving Controlling (DNIC), and leaves to receive training missed during their absences. Semi-Annual training will be conducted at least once every 6 months and annual training will be conducted at least once every 12 months.

13.2.1. CATCTs shall ensure the following items, including technical references, are scheduled, trained and outlined in the training OI. All items must be supplemented with any locally developed material pertinent to the unit's operations.

13.2.1.1. Electromagnetic Interference (EMI). Conduct annually. TR: AFI 10-707, Spectrum Interference Resolution Program and Flight Information Publication (FLIP) General Planning Guide, FAAO 7110.65, CBT-R-10.

13.2.1.2. Anti-Hijack Training. Conduct semiannually. TR: FAAO 7110.65, CBT A-2 and AFI 13-207, Preventing/Resisting Aircraft Piracy (For Official Use Only).

13.2.1.3. Aircraft Characteristics and Performance. Conduct annually. TR: FAAO 7110.65, CBT A-1. At locations where exercises and aircraft deployments occur, ensure controllers are trained on aircraft characteristics prior to exercise/deployment date. Review annually and make adjustments as required.

13.2.1.4. Tower Visibility Observations. Conduct annually for all tower controllers. TR: FAAO 7110.65, AFMAN 15-111, AFMAN 15-124 and AT-G-60.

13.2.1.5. Special Aircraft Operations by Law Enforcement Organizations. Conduct annually (if applicable). TR: FAAO 7110.65, FAAO 7110.52 and FAAO 7110.67.

13.2.1.6. Wake Turbulence. Conduct semiannually. TR: FAAO 7110.65 and CBT A-3.

13.2.1.7. Snow Control Operations (if applicable). Conduct annually. TR: LOPs.

13.2.1.8. Alternate Facilities (if applicable). At locations with alternate facilities conduct training at least semiannually. TR: LOPs.

13.2.1.9. Non-Radar Training (conduct monthly). All controllers certified in a radar control position (arrival/approach), excluding RFC, must complete at least one non-radar scenario per month. (At locations with CENRAP, the non-radar scenario must include activation and deactivation of

the CENRAP features to ensure a smooth transition of events). Conduct non-radar training using Air Traffic Control Simulation Equipment (ATCSE). TR: FAAO 7110.65, AFI 13-203 and CBT A-5.

NOTE: At locations where the FAA or host nation assumes responsibility for the radar facilities airspace, controllers must be trained to provide initial non-radar separation until such time that the airspace is transferred back to the FAA or host nation. Units with radar UTC taskings must train on basic non-radar procedures

13.2.1.10. Bird Aircraft Strike Hazard (BASH) Reduction Program. Conduct semiannually prior to the bird migratory seasons. TR: FAAO 7110.65, Air Force Pamphlet 91-212, Bash Management Techniques, CBT A-7 and LOPs.

13.2.1.11. Simulated Flameout Procedures (SFO). Semiannually. TR: FAAO 7110.65, CBT G-7 and LOPs (If Applicable).

13.2.1.12. Crew Resource Management (CRM). Conduct annually. TR: AT M-06a and CBT G-23.

13.2.1.13. Generator Training (if applicable). Conduct annually. TR: LOPs.

13.2.1.14. Applicable changes to FAAOs and AFIs as published.

13.2.1.15. Vehicle Control. Conduct Annually, TR: FAAO 7110.65, LOPs

13.2.1.16. At locations with NVD procedures, conduct recurring training semiannually for all tower controllers. TR: LOPs and AFI 13-203.

13.3. Review Training Schedule. CATCTs will solicit additional training from the AOF/CC, CCTLR and CSE. HQ AFFSA and MAJCOMs may initiate review training requirements and these items may be included on the monthly recurring training (proficiency) test.

13.4. ATC Training Series. Complete all new series (paper/CBT) and/or revised portions of existing series that apply to facilities in which controllers hold position certifications, qualifications or facility ratings within 90 days of receipt. CATCTs must update supporting programs that reference ATC training series. Complete all new management training series according to the instruction in the training guide.

13.5. Recurring/Review Training Dissemination. CATCTs must develop and publish monthly recurring/review training requirements for all personnel in a monthly training letter. Monthly training requirements must include required Air Force and MAJCOM recurring training, messages mandating training on specific tasks, local requirements determined by ATC managers. Retain monthly training letters for one year. Document monthly recurring/review training on AF Form 1098.

13.6. Proficiency Testing. CSEs shall develop and administer monthly testing products and other associated evaluation methods (e.g. performance evaluations, simulation, written tests).

13.6.1. Proficiency tests shall be administered without the use of reference material. Tests may be administered either on paper or through an electronic medium. Minimum passing score is 80 percent on all monthly proficiency tests. Review training must be conducted when individuals score less than 100 percent on proficiency/certification tests or are found substandard in any performance process. Document the review training and proficiency test score on AF Form 1098.

13.6.2. Supervisors of individuals scoring below 80 percent on the monthly proficiency test are required to conduct review training on those items missed. The individual will retest within 14 calendar days of the original test date. Minimum passing score of the monthly proficiency retest is 80 percent. Document the review training and the proficiency retest on AF Form 1098.

13.6.3. Individuals scoring below 80 percent on the retest will be referred to the CCTLR for evaluation and training recommendations. Document recommendations and corrective actions on AF Form 623a.

13.6.4. Apprentice controllers in FLT blocks 1-3 may be administered the proficiency test open book.

Chapter 14

ATCS CERTIFICATION MANAGEMENT, FACILITY RATINGS AND CERTIFICATES

14.1. Air Traffic Control Specialist (ATCS) Certificate. In accordance with the Code of Federal Regulations 14, Part 65, Subpart B, Air Traffic Control Tower Operators, only personnel holding a current Air Traffic Control Specialist (ATCS) Certificate shall be authorized to perform air traffic control duties in USAF facilities. This applies to any issuance of air traffic control instructions to airborne aircraft and aircraft on the ground over ATC frequencies even under direct supervision by a qualified air traffic controller. To obtain an ATCS certificate, an individual must qualify physically according to AFI 48-123, *Medical Examination and Medical Standards* (for GS-2152 personnel, FAA medical standards) and satisfactorily complete a formal Department of Defense (DoD) or Department of Transportation (DOT) basic ATC Course. Additionally, each individual must satisfactorily complete the FAA CTO written test or hold an FAA CTO certification.

14.1.1. Replacement of the ATCS Certificate. The ATCS examiner will replace lost, destroyed, or unserviceable certificates.

14.1.2. Suspension of the ATCS Certificate. The squadron commander responsible for ATC may suspend an ATCS certificate (military and civilian) when a controller is pending withdrawal of their AFSC or when deemed necessary in the interest of aviation safety. The squadron commander will fully investigate the circumstances of the suspension.

14.1.3. Cancellation of the ATCS Certificate. An ATCS certificate is valid until voided. When withdrawing the 13MX, 1C1X1 AFSC, or civilian equivalent permanently from active duty or civil service for cause or medical disqualification, the CCTLR will void the ATCS certificate by printing "VOID" in block letters on the front of the certificate.

14.1.4. Reissuance of the ATCS Certificate. The ATCS examiner will reissue the ATCS certificate to individuals who have a primary or secondary AFSC of 13MX, 1C1X1 or civilian equivalent performing air traffic control duties, and meet one of the following conditions:

14.1.4.1. An active duty controller who returns from duty outside ATC.

14.1.4.2. A discharged controller who re-enlists or joins the ANG as an air traffic controller.

14.1.4.3. A previously certified FAA or DoD or military controller who is hired as a GS-2152 (Terminal) at an Air Force active duty, ANG or AFRC location.

14.1.4.4. An individual whose certificate was canceled for medical reasons, but the medical condition no longer exists and MAJCOM/SGP medically certifies the controller.

14.1.5. The CSE/ACSE/TSN/ATSN will verify the individual meets criteria of paragraph **14.1.**. before reissuing the certificate.

14.2. Facility Rating/Position Evaluation Requirements. The CSE, TSN, ATSN or ACSE will ensure the trainee meets the requirements of CFETP/STS. Accomplish the knowledge evaluation by using the CTO and ATCS examiner-developed facility rating tests based on the objectives set in the PCGs. Observe the trainee's performance for a reasonable period under normal workload using the standards of the PCG. Simulation may be used to augment the evaluation.

14.3. Upon completion of an evaluation, complete the following:

14.3.1. Control Tower Facility Rating (Pass).

14.3.1.1. Document evaluation on AF Form 623a or suitable substitute, On-the-Job Training Record - Continuation Sheet.

14.3.1.2. Issue FAA Form 8060-4, *Temporary Airman Certificate* to the controller.

14.3.1.3. Send FAA Form 8400-3, *Application for an Airman Certificate and/or Rating*, to the Federal Aviation Administration (FAA).

14.3.1.4. Document position and facility ratings on AF Form 3622*, Air Traffic Control/Weather Certification and Rating Record*.

14.3.1.5. Document the results of the evaluation on AF Form 3616.

NOTE: IAW FAR Part 65.39 an applicant for a facility rating at any air traffic control tower must have satisfactorily served as an air traffic control tower operator for at least 6 months for award of CTO certificate. However, individuals may work unmonitored in positions they are certified, under supervision of a WS/SC.

14.3.2. Control Tower Facility Rating (Fail).

14.3.2.1. Document evaluation on AF Form 623a or suitable substitute.

14.3.2.2. Decertify deficient task items in CFETP/STS.

14.3.2.3. Refer the individual to the CCTLR to determine whether to reenter the controller into position/facility rating training or initiate action to withdraw the individual from the career field.

14.3.2.4. Document the results of the evaluation on AF Form 3616.

14.3.3. RAPCON/GCA/RFC Facility Rating (Pass).

14.3.3.1. Document evaluation on AF Form 623a or suitable substitute.

14.3.3.2. Document the rating on the controllers FAA Form 7220.1, *Air Traffic Control Specialist (ATCS) Certificate*.

14.3.3.3. Document position and facility ratings on AF Form 3622.

14.3.3.4. Document the results of the evaluation on AF Form 3616.

14.3.4. RAPCON/GCA/RFC Facility Rating (Fail).

14.3.4.1. Document the evaluation on AF Form 623a or suitable substitute.

14.3.4.2. Decertify deficient task items in CFETP/STS.

14.3.4.3. Refer the individual to the CCTLR to determine whether to reenter the controller into position/facility rating training or initiate action to withdraw the individual from the career field.

14.3.4.4. Document the results of the evaluation on AF Form 3616.

14.3.5. Tower/Radar Position Certifications.

14.3.5.1. Document evaluation (pass or fail) on AF Form 623a or suitable substitute.

14.3.5.2. Document all position certifications on AF Form 3622.

14.3.6. The trainee, trainer, WS, CCTLR, (CSE, TSN, and CTO Examiner as appropriate), CATCT, and AOF/CC must coordinate on the AF Form 623a or suitable substitute for position and facility evaluations.

14.4. Position Certification and Facility Rating Suspension. The AOF/CC, CCTLR, CSE, TSN and CTO examiner have the authority to suspend position certifications and facility ratings. When a controllers control practices present a potential hazard to flying safety or fails to meet proficiency requirements, take the following actions.

14.4.1. Hazard to Flying Safety. If the suspension is due to a controller's demonstrated potential hazard to flying safety, suspend all position certifications and ratings in all facilities (if dual qualified). Annotate the controller's AF Form 3622 with an S and the effective date of suspension in the Date Canceled block next to each position certification. Within 10 workdays, re-enter the controller into training, or cancel their ratings, or cancel position certifications or initiate AFSC withdrawal. Never erase or overwrite an S annotated on AF Form 36 22.

14.4.2. Failure to Meet Proficiency Requirements. When a controller has not met CCTLR established position proficiency requirements suspend certifications or facility ratings. ***NOTE:*** Do not annotate an S on AF Form 3622 for failure to meet proficiency requirements.

14.4.3. AF Form 623 Documentation. Document the following on an AF Form 623a or suitable substitute and place in the controller's AF Form 623 for a minimum of one year:

14.4.3.1. Controller's name.

14.4.3.2. Effective date of suspension.

14.4.3.3. All ratings and certifications affected.

14.4.3.4. Reason for rating or position certification suspension.

14.4.3.5. Recommended course of action.

14.4.3.6. Signature of suspended controller and suspending authority.

14.4.4. The CCTLR, CATCT, CSE, TSN, CTO Examiner and AOF/CC must coordinate on the AF Form 623a or suitable substitute when canceling or suspending a controller's certification for other than PCS, PCA or separation.

14.5. Cancellation of Position Certifications and Facility Ratings. Cancel position certifications and facility ratings when a controller departs PCS, PCA, separates, or transfers to another DoD location, or does not re-enter into training within 10 workdays after a Hazard to Flying Safety suspension. The AOF/CC and CCTLR have the authority to cancel position certifications and facility ratings.

14.5.1. Documentation. Enter a "C" and the effective date of cancellation in the "Date Cancelled" block on the controller's AF Form 3622, next to the position certifications and facility rating being canceled, or split the block on a previously documented suspension and enter the "C" and effective date.

14.6. Special Evaluations. Special evaluations are conducted on controllers who have had ratings suspended as a result of flying safety or due to a lack of proficiency.

14.6.1. Hazard to Flying Safety. Only the CSE, TSN, ATSN, ACSE, or CTO Examiner may conduct special evaluations on controller's whose ratings were suspended as a result of flying safety.

14.6.2. Failure to Meet Proficiency Requirements. The CCTLR, CSE, TSN, ACSE, CTO Examiner, or a qualified WS may conduct a special evaluation due to failure to meet proficiency requirements.

14.6.3. Documentation. Document all special evaluation results on AF Form 623a or suitable substitute and enter the evaluation in the controller's AF Form 623. Retain for 1 year after reinstatement. Annotate on AF Form 3616 the following information:

14.6.3.1. Who is performing the special evaluation.

14.6.3.2. Who the special evaluation is being conducted on.

14.6.3.3. Positions being evaluated.

14.6.4. The CCTLR, CATCT and CSE must coordinate on the AF Form 623a or suitable substitute when suspending a controller's certification for failure to meet proficiency requirements.

14.7. Facility Evaluations. (Not applicable to Moron AB). The CSE/ACSE/TSN/ATSN will conduct periodic facility evaluations, on each crew, at least every 90 days to ensure adherence to facility operating directives and standard application of procedures.

14.7.1. As a minimum, the CSE will observe:

14.7.1.1. Crew application of crew resource management (CRM) principles:

14.7.1.1.1. Situational Awareness.

14.7.1.1.2. Effective communications.

14.7.1.1.3. Risk management.

14.7.1.1.4. Workload management.

14.7.1.1.5. Group dynamics.

14.7.1.1.6. Stress awareness and management.

14.7.1.2. Application of standard phraseology.

14.7.1.3. Application of separation criteria.

14.7.1.4. Inter/intra facility coordination.

14.7.1.5. Position awareness. Performing position responsibilities as defined by FAAO 7110.65 and local LOP's.

14.7.1.6. Weather reporting procedures.

14.7.1.7. Crew change procedures.

14.7.1.8. Use of checklists.

14.7.2. The CSE/TSN will develop a local checklist for conducting facility evaluations, as a minimum the checklists shall contain the required items outlined in paragraph 14.7.1 - 14.1.8.

14.7.3. Document the results of each evaluation and forward to the AOF/CC and CCTLR for review and/or action. Retain facility evaluations for a minimum of one year.

14.7.4. For facilities without established crews, the CSE/TSN shall conduct 3 random evaluations at-least every 90 days.

14.8. Annual and Controller Evaluations.

14.8.1. **Annual Evaluations.** The CSE, TSN, ACSE, ATSN or CTO examiner will evaluate each controller using a locally developed annual evaluation checklist within 30 days of the anniversary of the initial position certification or last annual evaluation. Conduct the evaluation during live traffic or a combination of live and simulated traffic in that facilities most complex position. CCTLRs will identify the most complex position in an LOP.

14.8.2. **Controller Evaluations.** A controller evaluation is conducted on a qualified controller in any position deemed necessary when judgment, actual proficiency levels (based on the established PCG standards), or questionable practices warrant further evaluation. The AOF/CC, CCTLR, TSN, CSE, or CTO examiner has the authority to direct a qualified controller be evaluated. The CSE, TSN, ATSN, ACSE, CTO examiner will conduct the controller evaluation during live traffic or a combination of live and simulated traffic.

14.8.3. Annual/Controller Evaluation actions.

14.8.3.1. Annual/Controller evaluation (Pass)

14.8.3.1.1. Document evaluation on AF Form 623a or suitable substitute and retain in the individual's training record until the next annual evaluation is accomplished.

14.8.3.1.2. Document results of the evaluation on AF Form 3616.

14.8.3.2. Annual/Controller Evaluation (Fail)

14.8.3.2.1. Controllers who fail an annual/controller evaluation will have their facility ratings and position certifications for all facilities suspended until recertified.

14.8.3.2.2. Decertify deficient task items in CFETP/STS.

14.8.3.2.3. Document evaluation on AF Form 623a or suitable substitute.

14.8.3.2.4. Refer the individual to the CCTLR to determine whether to reenter the controller into facility training or initiate action to withdraw the individual from the career field.

14.8.4. The CCTLR, CATCT, CSE, TSN, CTO Examiner and AOF/CC shall coordinate on the Annual/Controller evaluation AF Form 623a or suitable substitute.

Chapter 15

ATC WITHDRAWALS

15.1. Withdrawal from ATC Duty. AFI 36-2108, *Airman Classification*, and 14 CFR, Part 65, require controllers to have an FAA Air Traffic Control Specialist (ATCS) certificate. Failure to earn or to comply with the requirements to hold an FAA ATCS certificate will initiate withdrawal action.

15.1.1. ATC managers must identify controllers who demonstrate substandard performance to the squadron commander at the earliest time, in order to correct the substandard performance or obtain a suitable replacement.

15.1.2. When withdrawal, disciplinary or other administrative actions are appropriate, do not allow one action to substitute for or delay the other. If more than one category of withdrawal is merited, the MAJCOM OPR for ATC will make the final determination of the most appropriate category of withdrawal in order to expedite resolution of pending actions.

15.1.3. ATCS certificate withdrawal applies to any person holding a 1C1X1 or 13M3 primary or secondary AFSC or civilian equivalent (GS 2152).

15.1.4. Airfield Operations Officers holding the 13M1 AFSC, who fail to complete training for upgrade to 13M3 within established time limits IAW AFI 13-204, are eliminated from training IAW AFI 36-2101.

15.2. Withdrawal Categories . Controller withdrawals fall under three categories: AFSC withdrawals for failure to obtain or maintain a rating, ATCS certificate withdrawals for failure to maintain mandatory qualification standards other than medical, and ATCS certificate withdrawals for medical disqualification. Sample memorandums associated with suspending/withdrawing a controller's FAA ATCS certificate are provided at **Attachment 2 - Attachment 5**. Checklists for suspending/withdrawing ATCS certificates and withdrawing ATC AFSCs are provided at **Attachment 6 - Attachment 9**. Criteria for each category of withdrawal are outlined below.

15.2.1. Fear of Controlling (FOC) (**Attachment 4**). The category of withdrawal, if FOC is substantiated, will be medical. FOC is a non-medical term for a specific phobia as listed in the most current, Air Force Surgeon General approved version of the Diagnostic and Statistical Manual (DSM). It is medically disqualifying, and a military psychiatrist or psychologist must diagnose this condition. If a controller professes a fear of controlling the OSS Commander will accomplish the following:

15.2.1.1. Suspend the individual's ATCS certificate.

15.2.1.2. Refer the individual to the flight surgeon and to a military psychiatrist or psychologist for evaluation.

15.2.1.3. If the military psychiatrist or psychologist does not diagnose the individual as suffering a specific phobia, as listed in the most current version of DSM, and the individual persists in the claim of FOC, consider the person as "self-eliminated" and withdraw from the career field under the category "other". Determine if the local flight surgeon considers the individual a hazard to flight safety.

15.2.1.4. If the individual does not suffer from a specific phobia and abandons the claim of FOC, then return the controller to duty. A qualified controller must monitor the returned controller in

every position until determining control practices are not a hazard to flying safety and the individual successfully passes a special evaluation for each operating position.

15.2.2. Failure to Obtain or Maintain a Rating (FTOR) (**Attachment 5**). Use these procedures for controllers in upgrade and qualification training. Do not recommend controllers for AFSC withdrawal until adequate training and evaluations substantiate FTOR. ATC managers may base withdrawal action on a controller's inability to complete the facility's radar simulator training program, if the simulator scenarios are not more difficult than actual routine traffic.

15.2.3. Character and Behavior Disorder (CBD) (**Attachment 8**). Character and behavior disorders are medically disqualifying only at the time of initial selection (up to six months from initial oath) for ATC duty. These disorders may be detrimental to the individual's performance of ATC duties and a hazard to flying safety. If this is the case, consider administrative withdrawal of the controller's ATCS certificate. Job performance and overall behavior are key assessments.

15.2.4. Alcohol Abuse (**Attachment 7**). Involvement in an alcohol-related incident may be grounds for ATCS certificate withdrawal under the medical category. Commanders must evaluate each case and determine if withdrawal action is appropriate.

15.2.4.1. OSS Commanders will refer individuals involved in alcohol-related incidents to the flight surgeon and initiate the alcohol abuse rehabilitation evaluation process, in accordance with AFI 44-121, *Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program.* When individuals do not meet the most current, Air Force Surgeon General approved, DSM of mental disorders diagnostic criteria for alcohol dependence or alcohol abuse, the commander may return them to duty. In these cases, the flight surgeon must determine that the controller is not a hazard to flying safety or recommended the controller for withdrawal if deemed appropriate.

15.2.4.2. If the commander determines that an alcohol-related incident represents only a disciplinary problem, the commander will educate the individual through alcohol awareness education and return the individual to duty.

15.2.4.3. If entered into alcohol abuse rehabilitation, the commander may continue the controller in duty status, let the controller work positions with a trainer or monitor, or suspend the controller from ATC duty during rehabilitation.

15.2.4.4. Individuals who meet the most current version of the DSM diagnostic criteria for alcohol abuse or alcohol dependence will be DNIC until medically disqualified or granted a waiver by the MAJCOM Surgeon General. Commanders may request a waiver for alcoholism or alcohol abuse if administrative withdrawal is not appropriate and the following criteria are met.

15.2.4.4.1. The substance abuse (SA) staff determines that the individual has made satisfactory progress.

15.2.4.4.2. Individual has maintained abstinence from alcohol without needing required medication for a period of 6 months from the date of entering the alcohol and drug abuse prevention and treatment (ADAPT) program. ***NOTE:*** Any slips of abstinence during the ADAPT program resets the 6-month observation period for waiver consideration.

15.2.4.4.3. In the opinion of the flight surgeon, psychiatrist or clinical psychologist and the unit commander, and based on the ADAPT Treatment and Progress Evaluation, the individual has a low potential for regression and can be expected to remain stable under stress.

15.2.4.4.4. The individual has no medical complications or conditions that are a result of past alcohol abuse or dependence.

15.2.4.4.5. The individual states in writing that they understand the waiver is valid only if total abstinence from alcohol is maintained, and that a verifiable break in abstinence once the waiver period has begun is considered medically disqualifying and not waiverable.

15.2.4.4.6. To ensure unit commanders are aware of the need to observe individuals with past alcohol problems, new commanders must be briefed on controllers in their units with waivers when the individual changes assignment or when there has been a change of command.

15.2.4.5. Unit actions following waiver approval.

15.2.4.5.1. Reinstate ATCS certificate and return individual to ATC duties.

15.2.4.5.2. Monitor the individual until satisfactory completion of a special evaluation.

15.2.4.5.3. Submit a withdrawal package when an individual refuses or is incapable of completing alcohol abuse rehabilitation.

15.2.5. Drug Use or Abuse (**Attachment 6**). Drug use or abuse is inconsistent with US Air Force policy and discharge of individuals from the Air Force will result in most cases. According to AFI 36-2701, *Social Actions Program,* controllers involved with drugs will have their ATCS certificate suspended, under the medical category, pending the outcome of the commander's evaluation. A commander's decision to retain the controller requires close coordination with the flight surgeon, rehabilitation committee, and the base legal office. Conviction of any federal or state statute relating to drugs, as defined in FAR Part 65.12, is grounds to withdraw a controller's ATCS certificate.

15.2.6. ATCS Certificate Withdrawal under the category: "Other" (**Attachment 9**). Determination that a condition exists which could affect flying safety and ATCS certificate withdrawal is necessary.

15.3. Withdrawal and Reinstatement Procedures and Notification (RCS: HAF- XA[AR]9715):

15.3.1. Units shall notify MAJCOM OPR for ATC of any pending withdrawal actions for all categories including administrative and whether or not the withdrawal action should be for cause.

15.3.1.1. For withdrawals based on medical disqualification, flight surgeon and clinical representatives process packages directly with the MAJCOM Surgeon General. Forward medical withdrawals according to AFI 36-2101, *Classifying Military Personnel.*

15.3.1.2. When the basis for withdrawing the AFSC is for conditions or actions over which the airman had control, withdrawal action will be qualified as for "Cause". Examples of for "Cause", include loss of security clearance due to misconduct, drug abuse, alcohol involvement, failure to progress in training (for reasons within their control), and substandard duty performance or other acts that lead to AFSC withdrawal.

15.3.2. MAJCOM OPR for ATC will:

15.3.2.1. For FTORs, recommend AFSC withdrawal or reinstatement action to MAJCOM DP personnel.

15.3.2.2. For all other categories (other than medical), including drug use or abuse and alcohol abuse, notify MAJCOM/DP of the ATCS certificate withdrawal so they can initiate action to remove the AFSC.

15.3.2.3. In all cases, inform MAJCOM/DP whether or not the withdrawal action should be for "Cause" and, if appropriate, recommend termination and/or recoupment of the selective reenlistment bonus (SRB).

15.3.2.4. Notify HQ AFFSA/XA of completed withdrawal action. Include the following information:

15.3.2.4.1. Name, rank and last four of SSN.

15.3.2.4.2. Skill level (3,5,7, 9 for enlisted controllers, 1 or 3 for officers).

15.3.2.4.3. Reason for withdrawal.

15.3.2.4.4. If trainee is a 3 level and the reason is FTOR, add the date entered training in the facility and the date entered training in the last position.

15.3.2.4.5. Date of controller suspension.

15.3.2.4.6. Location and facility assigned.

15.3.2.4.7. Whether withdrawal was for cause.

Chapter 16

INSTRUCTIONAL TECHNOLOGY

16.1. AOF Web Program. The AOF web program uses Internet browser technology to allow users "point and click" access to air traffic control instructions and training documentation. HQ AFFSA/XA publishes the program using distribution X. HQ AFFSA/XA will distribute two copies of the AOF Web program to each base through Distribution X. One copy each for airfield management and ATC. Units may obtain additional copies through their MAJCOM training staff if needed. Units should make every attempt to load the AOF Web Program on a local area network (LAN) and obtain administrator rights/ privileges for CATCT/TSN and assistants in order to provide controllers/base operations specialists with updated and current information.

16.1.1. CATCTs will develop and administer training to all ATC personnel on AOF Web Program usage. As a minimum, the following items will be covered:

16.1.1.1. Accessing the AOF Web Program

16.1.1.2. Navigating through ATC reference and training information

16.1.1.3. Use of the MTTR

16.1.1.4. CBT access and utilization

16.1.1.5. Printing training or reference documents

16.2. ATC Simulation Equipment (ATCSE). Administration level access to simulation systems will be limited to the authorized system administrator and designated assistants. Only authorized software may be loaded on ATCSE, as applicable.

16.2.1. Units that run the SIGNAL simulation program, may load additional software on the computers utilizing SIGNAL, with the approval of the Designated Approval Authority (DAA), in coordination with the Network Control Center (NCC).

16.2.2. Technical Support. For Air Traffic Control Training Device (ATCTD) and Simulation and Integration of Ground, Network and Air Links (SIGNAL) Software technical support, contact HQ Electronic Security Command OL-D/E, Tinker AFB, OK at DSN 884-7004. For other simulation systems, contact the appropriate technical support center as identified in applicable support agreements. For issues other than technical support, contact your MAJCOM ATC OPR.

16.2.2.1. Measure minimum standards during initial evaluations.

16.2.2.2. Train apprentice controllers on basic ATC fundamentals and local airspace/procedural requirements.

16.2.2.3. Train prior rated controllers on local airspace and procedural requirements.

16.2.2.4. Train controllers on nonradar procedures, with emphasis on procedures applicable to your unit.

16.2.2.5. Provide monthly proficiency to controllers who did not receive maximum proficiency traffic during their proficiency period.

16.2.2.6. As a minimum, design scenarios to prepare trainees to work effectively in a live environment and design scenarios to supplement live traffic for position/facility certifications.

16.2.3. CATCT or assistants are responsible for the following:

16.2.3.1. Programming scenarios and incorporating training materials.

16.2.3.2. Creating an outage log to track and describe system/workstation malfunctions.

16.2.3.3. Providing training, as needed, to run stand-alone or network scenarios.

16.2.3.4. Providing a print out of the basic keyboard commands as listed in the appropriate materials and maintain a readily available copy of the most current manuals).

16.2.4. Delete

16.2.5. Delete

16.2.6. Delete

16.2.7. Delete

16.3. Simulation Scenarios. CATCTs will develop, administer and maintain simulation scenarios that provide training in basic ATC fundamentals. Incorporate scenarios into the appropriate PCG and ensure a sufficient number of realistic scenarios meet or exceed normal traffic levels and complexity. At locations where simulation equipment is not installed, CATCTs will develop and incorporate static board scenarios into the appropriate PCG's. Stress areas or tasks controllers are not routinely required to perform. Ensure development of position scenarios to measure standards during the initial evaluation.

16.3.1. As a minimum, design scenarios to prepare trainees to work effectively in a live environment and:

16.3.1.1. Measure minimum standards during initial evaluations.

16.3.1.2. Train apprentice controllers on basic ATC fundamentals and local airspace/procedural requirements.

16.3.1.3. Train prior rated controllers on local airspace and procedural requirements.

16.3.1.4. Train controllers on nonradar procedures, with emphasis on procedures applicable to your unit.

16.3.1.5. If authorized by the CCTLR proficiency program, design scenarios to provide monthly proficiency to controllers who did not receive of maximum proficiency period as required.

16.3.1.6. Design scenarios to prepare trainees to work effectively in a live environment and design scenarios to supplement live traffic for position/facility certifications.

16.3.2. Simulation scenarios may be used to supplement evaluation procedures in order to evaluate skills not observed during live traffic.

16.3.3. Controllers shall not control live traffic until completing a comprehensive simulator-training program for the position in which training is being accomplished. CCTLRs approve any exceptions and document on AF Form 623a or suitable substitute.

16.3.4. If applicable, and required by the CCTLR, retain computer-generated scenario performance archives of all controllers in position qualification training until they progress to the next block of training. This may be accomplished electronically or through printed-paper copies.

16.3.5. If authorized by the CCTLR proficiency program, design scenarios to provide monthly proficiency to controllers who did not receive maximum proficiency traffic during their proficiency period as required. This is intended to be in addition to, not a substitute for, live traffic proficiency requirements.

16.3.6. Design scenarios to prepare trainees to work effectively in a live environment and design scenarios to supplement live traffic for position/facility certifications.

16.3.7. If applicable, and required by the CCTLR, retain computer-generated scenario performance archives of all controllers in position qualification training until they progress to the next block of training. This may be accomplished electronically or through printed-paper copies.

16.3.8. Controllers shall not control live traffic until completing a comprehensive simulator-training program for the position in which training is being accomplished. CCTLRs approve any exceptions and document on AF Form 623a or suitable substitute.

16.3.9. Simulation scenarios may be used to supplement evaluation procedures in order to evaluate skills not observed during live traffic.

16.4. CATCT or Assistants. CATCT or assistants are responsible for programming scenarios and incorporating training materials. Create an outage log to track and describe system/workstation malfunctions. Provide training, as needed, to run stand-alone or network scenarios.

16.4.1. Provide a print out of the basic keyboard commands as listed in the appropriate materials and maintain a readily available copy of the most current manuals.

16.5. Technical Support. For Air Traffic Control Training Device (ATCTD) and Simulation and Integration of Ground, Network and Air Links (SIGNAL) Software technical support, contact HQ Electronic Security Command OL-D/E, Tinker AFB, OK at DSN 884-7004. For other simulation systems, contact the appropriate technical support center as identified in applicable support agreements. For issues other than technical support, contact your MAJCOM ATC OPR.

Chapter 17

TRAINING RECORDS

17.1. Maintenance. Maintain AF Form 623 on all 1C1X1, 13MX and GS-2152 personnel who are position certified, facility rated, or in training. Records must be available to the trainee, trainer, watch supervisor and immediate supervisor.

17.2. Format. Maintain the following items in each 1C1X1, 13MX and GS-2152 personnel training record in the prescribed tabular format:

17.2.1. Tab A: All current preprinted and supplemental AF Form 1098s.

17.2.2. Tab B: Entries made on AF Form 623a. Enter in the following order:

17.2.2.1. Training evaluations.

17.2.2.2. Position certifications.

17.2.2.3. All other entries as required.

17.2.2.4. AETC Form 156, Student Record of Training that shall remain in records until awarded 5 skill level.

17.2.3. Tab C: Applicable CFETP.

17.2.4. Tab D: AFJQSs and Qualification Training Package Documentation.

17.2.5. Tab E: MAJCOM and Unit AF Form 797s.

17.2.6. Tab F: AF Form 3622.

17.2.7. Tab G: Any documents required by HQ AFFSA, MAJCOM, CCTLR, Previous Year's AF Form 1098 and expired documents for retention, etc.

17.3. Form Disposition.

17.3.1. AF Form 1098. At the beginning of each calendar year, insert a new AF Form 1098 into AF Form 623 and begin entries for that year. Retain the previous year's forms under Tab G in AF Form 623. Documents no longer requiring retention should be removed and given to the individual. Document review and recurring training on AF Form 1098.

17.3.2. CFETP and AFJQS Documentation. Replace the CFETP or AFJQS only if they become unserviceable or are superseded.

17.3.2.1. Prior rated individuals are not required to complete a new CFETP or AFJQS upon arrival to a new duty location. An initial evaluation is conducted to ascertain the proficiency level of the individual.

17.3.2.2. Use the CFETP Part II (STS) to identify and certify all past and current task qualifications.

17.3.2.3. Identify duty position requirements by circling, in pencil, the subparagraph next to the task statement. As a minimum, complete the following columns in the STS: Start date (if applicable), training completion date, trainee and trainer initials.

17.3.2.4. For those specialty core tasks previously certified and required in the current duty position, evaluate current qualifications and when verified, recertify using current date as completion date and enter trainee's and trainer's initials.

17.3.2.5. For non-core tasks previously certified and required in the current duty position, evaluate current qualifications and when verified, recertify using current date, as completion date and enter trainee's and trainer's initials.

17.3.2.6. When a controller becomes unqualified on a task previously certified for a position, the supervisor deletes previous certification by erasing the entries. Appropriate remarks are entered on the AF Form 623a or suitable substitute, stating the reason for decertification. Recertify (if required) using current training start date, training completion date, trainee's and trainer's initials.

17.3.2.7. When transcribing previous certification for tasks not required in the current duty position, carry forward only the previous completion date of certification (not the initials of another person). If and when these tasks become a duty position requirement, recertify using standard certification procedures.

17.3.2.8. The person whose initials appear in the trainer block during the transcription process must meet the requirements of their respective role.

17.3.2.9. Upon completion of the transcription process, give the CFETP or AFJQS to the member for personal disposition.

17.3.2.10. If an individual PCS's to a new location and was previously qualified on a task, the following documentation takes place: If an item is deferred at the new location, leave all documentation, but do not circle the subparagraph number next to the task statement as a current duty position task.

17.4. AF Form 623 Documentation. Enter the following information (if applicable) on the inside cover of the AF Form 623:

17.4.1. Technical Training School.

17.4.2. Trainer and Task Certifier Course.

17.4.3. Professional Military Education.

17.4.4. Additional Duty/Professional Development Courses.

17.4.5. Applicable Air Traffic Control Training Series.

17.5. Forms Prescribed. AF Form 3615**, Required Data for PAR Alignment,** AF Form 3616, **Daily Record of Facility Operation,** AF Form 3622**, Air Traffic Control/Weather Certification and Rating Record,** AF Form 3624**, Equipment Outage Log,** AF Form 3626**, Position Log,** AF Form 4058**, Airfield Operations Policy Waiver,** AF Visual Aid 13-221**, Control Tower Light Gun Signals.**

17.6. Forms Adopted. AF Form 623**, Individual Training Record,** AF Form 623a**, On-The-Job Training Record - Continuation Sheet,** AF Form 797**, Job Qualification Standard Continuation/Command JQS,** AF Form 847**, Recommendation for Change of Publication,** AF Form 1098**, Special Task Certification and Recurring Training,** AF Form 2096**, Classification/On-The-Job Training Action,** AETC Form 156**, Student Record of Training,** FAA Form 7220.1**, Air Traffic Control Specialist**

(ATCS) Certificate, FAA Form 8060-4**, Temporary Airman Certificate,** FAA Form 8400-3**, Application For An Airman Certificate and** FAA Form 7230-7-2**, Flight Progress Strip (Automated) or** 7230-8**, Flight Progress Strip (FAA).**

RONALD E. KEYS, Lt Gen, USAF
DCS/Air and Space Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

U.S. Air Force

AFI 13-222, Airfield Operations Officer Training Program

AF Doctrine Document 2-1.7, *Airspace Control in the Combat Zone*

AFH 11-203V1, *Weather for Aircrews*

AFH 36-2235, Vol II, *ISD Automated Tools/What Works*

AFI 10-403, *Deployment Planning And Execution*

AFI 10-707, *Spectrum Interference Resolution Program*

AFI 11-201, *Flight Information Publications*

AFI 11-202, Vol III, *General Flight Rules*

AFI 11-209, *Air Force Participation in Aerial Events*

AFI 11-218, *Aircraft Operation and Movement on the Ground*

AFI 13-201, *Air Force Air Space Management*

AFI 13-203, *Air Traffic Control*

AFI 13-204, *Functional Management of Airfield Operations*

AFI 13-207, *Preventing and Resisting Aircraft Piracy (FOUO)*

AFI 13-213, *Airfield Management*

AFI 13-216, *Evaluation of Air Traffic Control and Landing Systems (ATCALS)*

AFI 13-218, *Air Traffic System Evaluation Program*

AFI 14-205, *Identifying Requirements For Obtaining And Using Geospatial Information and Services*

AFI 32-1043, *Management of Aircraft Arresting Systems*

AFI 32-1063, *Electric Power Systems*

AFI 32-7061, *The Environmental Impact Analysis Process*

AFI 33-211, *Communications Security (COMSEC) User Requirements*

AFI 33-212, *Reporting COMSEC Deviations*

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFI 36-2206, *Reenlistment in the United States Air Force*

AFI 36-2605, *Air Force Military Personnel Testing System*

AFI 36-2807, *HQ USAF Deputy Chief of Staff Air and Space Operations Annual Awards Program*

AFI 36-401, *Employee Training and Development*

AFI 44-121, *Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program*

AFI 48-123, *Medical Examination and Standards*

AFI 51-701, *Negotiating, Concluding, Reporting And Maintaining International Agreements*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-204, *Safety Investigations and Reports*

AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*

AFJI 11-208, *The US Military Notice to Airmen (NOTAM) System*

AFJMAN 11-226, FAA Handbook 8260.3, *US Standard for Terminal Instrument Procedures (TERPS)*

AFJI 91-206, *Participation in a Military or Civil Aircraft Accident Safety Investigation*

AFMAN 11-225, FAA Handbook OAP 8200.1, *US Standard Flight Inspection Manual Procedures*

AFI 11-230*, Instrument Procedures*

AFMAN 13-215, *ATC Radar Maps and Associated Systems*

AFMAN 13-220, *Deployment of Airfield Operations*

AFMAN 15-111, *Surface Weather Observations*

AFMAN 15-124, *Meteorological Codes*

AFMAN 36-2108, *Airman Classification*

AFMAN 36-2234, *Instructional System Development, Vol. 1*

AFMAN 37-138, *Records Disposition--Procedures and Responsibilities*

AFMAN 37-139, *Records Disposition Schedule*

AFMP 91-212, *Bash Management Techniques*

AFPAM 11-238*, Aircrew Quick Reference to the METAR/TAF Codes*

AFPAM 91-211, *US Air Force Guide to Mishap Investigation*

AFPD 13-2, *Air Traffic Control, Airspace, Airfield and Range Management*

AFPD 36-4, *Civilian Personnel Training and Development*

AFSUPDODR5400.78, *Freedom of Information Act Program*

CFETP 1C1X1 for *AFSC 1C1X1, Air Traffic Control Operations, Parts I and II*

Joint Publication 3-52, *Doctrine for Joint Airspace Control in the Combat Zone*

Air Traffic Control Training Series:

See Air Force Publishing - Electronic Publications - Special Series Section – Air Traffic Control Training Series

Web site address is: http://afpubs.hq.af.mil/pubs/speclist.asp?puborg=AF&series=atc

Code of Federal Regulations (CFR) 14:

Pt 01, *Definitions and Abbreviations*

Pt 65, *Certification: Airman Other Than Flight Crew Members*

Pt 71, *Designation of Federal Airways, Controlled Airspace, and Reporting Points*

Pt 73, *Special-Use Airspace*

Pt 77, *Objects Affecting Navigable Airspace*

Pt 91, *General Operating and Flight Rules*

Pt 93, *Special Air Traffic Rules and Airport Traffic Patterns*

Pt 95, *IFR Altitudes*

Pt 97, *Standard Instrument Approach Procedures*

Pt 105, *Parachute Jumping*

Pt 157, *Notice of Construction Alteration, Activation, and Deactivation of Airports*

Pt 171, *Non-Federal Navigation Facilities*

FAA Handbooks and Orders:

7100.8, *Standard Instrument Departure (SID)*

7100.9, *Standard Terminal Arrival (STAR)*

7110.52, *Suspected Illegal Use of Aircraft*

7110.65, *Air Traffic Control*

7110.67, *Special Aircraft Operations by Law Enforcement Organizations*

7110.88, *Optimum Descent Procedures*

7130.3, *Holding Pattern Criteria*

7210.3, *Facility Operation and Administration*

7220.1, *Air Traffic Control Certification Procedures*

7340.1, *Contractions*

7350.7, *Location Identifiers*

7400.2, *Procedures for Handling Airspace Matters*

7610.4, *Special Military Operations*

8240.36, *Instructions for Flight Inspection Reporting*

8240.41, *Flight Inspection/Air Traffic Coordination*

8260.19, *Flight Procedures and Airspace*

Aeronautical Information Manual (AIM)

International Civil Aviation Organization (ICAO) Publications

North Atlantic Treaty Organization Standardization Agreements (NATO STANAGs)

DoD Flight Information Publications:

DoD Flight Information Handbook

High and Low Altitude Instrument Approach Procedures

High and Low Altitude Charts

UFC 3-260-01 Unified Facilities Criteria (UFC) Airport and Heliport Planning and Design

VFR and IFR Supplements Planning Data and Procedures

Abbreviations and Acronyms

NOTE: **FAA** Acronyms – Air Force abbreviations and acronyms will be utilized at all Air Force, AFRC, and ANG locations when staffed with DoD or contract civilian controllers.

ACATCT—Assistant Chief, Air Traffic Control Training

ACCTLR—Assistant, Chief Controller

ACSE—Assistant Chief, Standardization and Evaluation

ADIZ—Air Defense Identification Zone

AF PERSONNEL—Airway Facilities Personnel; USAF—ATCALS maintenance

AFI—Air Force Instruction

AFJQS—Air Force Job Qualification Standard

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFREP—Air Force Representative

AFSC 1C1X1—(Air Traffic Controller) GS-2152

ANG—Air National Guard

AOF—Airfield Operations Flight

AOF/CC—Airfield Operations Flight Commander

AOSE—Airfield Operations Standardization Evaluation

APU—Auxiliary Power Unit

ARTCC—Air Route Traffic Control Center

ASR—Airport Surveillance Radar

ATARS—Air Traffic Activity Reporting System

ATC—Air Traffic Control

ATCALS—Air Traffic Control and Landing System

ATCS—Air Traffic Control Specialist

ATCSS—Air Traffic Control Systems Specialist

ATCTD—Air Traffic Control Training Device

ATCTS—Air Traffic Control Training Series

ATD—Air Traffic Division (MAJCOM OPR for ATC)

ATIS—Automatic Terminal Information Service

ATREP—Air Traffic Representative

ATSEP—Air Traffic System Evaluation Program

AWDS—Automated Weather Distribution System

BASH—Bird Aircraft Strike Hazard

CATCA—Chief, Air Traffic Control Automation

CAT—Category

CATCO—Chief, Air Traffic Control Operations

CATCT—Chief, Air Traffic Control Training

CBT—Computer Based Training

CCT—Special Tactics Combat Control Team

CCTLR—Chief Controller

CCTV—Closed Circuit Television

CDR—Continuous Data Recording

CENRAP—Center Radar Presentation

CFETP—Career Field Education and Training Plan

CFM—Career Field Manager

CRM—Crew Resource Management

CSE—Chief, Standardization and Evaluation

CSIL—Customer Service Information Line

CTO—Control Tower Operator

CTRD—Certified Tower Radar Display

CWW—Cooperative Weather Watch

DASR—Digital Airport Surveillance Radar

DAT—Digital Audio Tape

DBRITE—Digital Bright Radar Indicator Tower Equipment

DH—Decision Height

DLT—Digital Linear Tapes

DTM—Digital Terrain Maps

DTAS—Digital Terminal Automation Systems

DNIC—Duty Not Involving Controlling

DoD—Department of Defense

DOT—Department of Transportation

DSM—Diagnostic and Statistical Manual

DSN—Defense Switching Network

DVA—Diverse Vector Area

DV—Distinguished Visitor

DVRS—Digital Voice Recorder System

EARTS—En Route Automated Radar Tracking System

EDIT—Experiencing Difficulty In Training

ELT—Emergency Locator Transmitter

EMI—Electromagnetic Interference

ETG—Enhanced Target Generator

ETVS—Enhanced Terminal Voice Switch

FAA—Federal Aviation Administration

FAAO—Federal Aviation Administration Order

FDEP—Flight Data Entry and Printout

FDS—Flight Data System

FEQ—Field Evaluation Questionnaire

FFM—Far Field Monitor

FLIP—Flight Information Publication

FOC—Fear of Controlling

FOIA—Freedom of Information Act

FOUO—For Official Use Only

FSDO—Flight Standards District Office

FSS—Flight Service Station

FTOR—Failure To Obtain (or Maintain) a Rating

GADO—General Aviation District Office

GAS—Graduate Assessment Survey

GCA—Ground Controlled Approach

HAT—Height Above Touchdown

HATR—Hazardous Air Traffic Report

HIRL—High Intensity Runway Lights

HQ AFFSA—Headquarters Air Force Flight Standards Agency

HQ ESC OL-D/E—Headquarters Electronic Systems Command Operating Location D/E

ICAO—International Civil Aviation Organization

ICR—Information Collection and Reports

IFF—Identification Friend or Foe

IFR—Instrument Flight Rules

ILS—Instrument Landing System

ISD—Instructional Systems Development

LAAS—Low Altitude Alert System

LMR—Land Mobile Radio

LOAC—Law of Armed Conflict

LOA—Letter of Agreement

LOP—Local Operating Procedure

MAJCOM—Major Command

MDA—Minimum Descent Altitude

MDS—Mission Design Series

METNAV—Meteorological and Navigational Aids

MFD—Military Facility Deviation

MIA—Minimum IFR Altitude

MIFRAC—Minimum IFR Altitude Charts

MIJI—Meaconing, Intrusion, Jamming, and Interference

MMLS—Mobile Microwave Landing System

MM—Middle Marker

MOA—Military Operations Area

MOU—Memorandum of Understanding

MRI—Master Reference Index

MSAW—Minimum Safe Altitude Warning

MTTR—Master Task and Technical Reference

MVA—Minimum Vectoring Altitude

NAS—National Airspace System

NAVAID—Navigational Aid

NDB—Non-directional Beacon

NOTAM—Notice to Airmen

NTSB—National Transportation Safety Board

OCR—Office of Collateral Responsibility

OG/CC—Operations Group Commander

OI—Operating Instruction

OJT—On the-Job Training

OM—Outer Marker

OPLAN—Operation Plan

OPR—Office of Primary Responsibility

PAPI—Precision Approach Path Indicator

PAR—Precision Approach Radar

PCA—Permanent Change of Assignment

PCAS—Primary Crash Alarm System

PCG—Position Certification Guide

PIDP—Programmable Indicator Data Processor

PIREP—Pilot Report

PM—Preventive Maintenance

PWS—Performance Work Statement

QTP—Qualification Training Package

RABM—Range Azimuth Beacon Monitor

RAPCON—Radar Approach Control

RFC—Radar Final Control

ROM—Read Only Memory

RPI—Runway Point of Intercept

RSI—Remote Status Indicator

RVR—Runway Visual Range

SA—System Administrator

SC—Senior Controller (or Controller in charge)

SEI—Specialty Experience Identifier

SOF—Supervisor of Flying

SSILS—Solid State Instrument Landing System

STANAG—Standardization Agreement (NATO)

STARS—Standard Terminal Automation Replacement System

STAR—Standard Arrival Route

STS—Specialty Training Standard

TCG—Task Certification Guide

TERPS—Terminal Instrument Procedures

TO—Technical Order

TR—Training Reference

TRB—Training Review Board

TR—Technical Reference

TSC—Training Status Codes

TSN—Chief, ATC Training and Standardization

UCT—Universal Coordinated Time

UGT—Upgrade Training

UHF—Ultra-High Frequency

UPS—Uninterruptible Power Supply

VASI—Visual Approach Slope Indicator

VFR—Visual Flight Rules

VHF—Very High Frequency

VMG—Video Map Generator

WS—Watch Supervisor

WWW—World Wide Web

Terms

Air Force Job Qualification Standard—A comprehensive task list common to all persons serving in the duty position which describes a particular job type or duty position. Also called AFJQS.

Air Force Specialty—A group of positions requiring common qualification (i.e. 1C1).

Air Force Specialty Code—A combination of letters and numbers used to identify an Air Force Specialty.

Air Traffic Control and Landing Systems—Department of Defense facilities, personnel, and equipment (fixed, mobile, and seaborne) with associated avionics to provide safe, orderly, and expeditious aerospace vehicle movements worldwide.

Air Traffic Control Tower Operator—An individual who meets the requirements for and is issued a control tower operator certificate. An air traffic control tower operator may perform duty in either a control tower or a radar facility.

Approach End of Runway—That end of a runway nearest to the direction from which the final approach is made.

Altimeter Setting—The altimeter setting issued by the weather station that serves the base. If the base has no weather station, the altimeter in a control tower may serve as the altimeter setting.

ATC Duty—ATC duty refers to controlling live or simulated traffic, monitoring a trainee controlling live or simulated traffic, and conducting duties as a watch supervisor.

AT Coach—Air traffic control simulation equipment that is part of a Standard Automation Replacement System (STARS) facility.

Career Field Education and Training Plan—A comprehensive, multipurpose document encapsulating the entire spectrum of education and training for a career field. It outlines a logical growth plan that includes training resources and is designed to make field training identifiable, to eliminate duplication and to ensure this training is budget defensible. Also known as CFETP.

Center Radar Presentation—A computer program that permits the processing of specified En Route Host Secondary Target Radar information by the Programmable Input Data Processor (PIDP) and the presentation of this information on the radar position displays. This program is used as a backup system when the terminal radar fails and/or is out of service. It requires that the PIDP processor be operational. Also known as CENRAP.

Center Radar Presentation Plus—The process which simultaneously presents CENRAP secondary radar information and terminal airport surveillance radar (ASR) information at the radar display. This process is used when only the ASR secondary beacon radar system fails and/or is scheduled out of service. Also known CENRAP Plus.

Certification Guides—Position certification guides (PCG) are documents prepared by the Chief, Air Traffic Control Training (CATCT) to assist the trainer and supervisor in logically training controllers in specific positions in a control facility. Task certification guides (TCG) are training materials focusing on non-control positions such as watch supervisor, trainer, chief controller, etc.

Computer-Based Training—Student conducted training through lessons received at a computer terminal and via computer interaction. Also called CBT.

Controlled Movement Area—As defined in base Airfield Operations Instructions, any portion of the airfield requiring aircraft, vehicles and pedestrians to obtain specific air traffic control approval for access (normally via two-way radio contact with the control tower). Controlled Movement Areas include but are not limited to areas used for takeoff, landing and as required taxiing of aircraft. NOTE: This definition is used in lieu of "movement area" as defined in the FAA Pilot Controller Glossary. Also called CMA.

Controlled Movement Area Violation—An airfield infraction caused by aircraft, vehicles, or pedestrians entering the controlled movement area without specific control tower approval. This definition includes runway intrusions and infractions caused by communication errors.

Departure End of Runway—That end of a runway nearest to the direction in which initial departure is made.

Dual Certification—A controller is dual certified when they hold current position certifications in more than one facility. The controller must maintain proficiency standards in both facilities to retain dual certification status.

Dual Qualified—A controller is dual qualified when they have been awarded both a radar and a control tower SEI.

Evaluation—A judgment expressed as a measure or ranking of trainee achievement, instructor (trainer) performance, process, application, training material and other factors in air traffic control training.

Facility Rating—An endorsement by the Control Tower Operator Examiner, Chief/Assistant Chief, Standardization and Evaluation or Chief, Training and Standardization that an individual has demonstrated the competence, qualifications, and skills required to control traffic at positions specified for the following type of facility rating issued.

Control Tower Operator (CTO)—Includes local control, ground control and flight data positions.

Ground Controlled Approach (GCA)—Includes all positions except watch supervisor and coordinator.

Radar Approach Control (RAPCON)—Includes approach control, departure control, arrival control and associated assist positions.

Radar Final Control (RFC)—Includes position that conduct precision approach radar (PAR) approaches and/or airport surveillance radar (ASR) approaches and monitor instrument approaches.

Graduate Assessment Survey—Surveys sent to supervisors to inquire on initial assessment of recent graduates. This assessment includes the graduate's attitude and adherence to military standards and their capability/ability to perform their job at the apprentice level and at your work center.

Go/No Go—The stage at which an individual has gained enough skill, knowledge and experience to perform the tasks without supervision. Meeting the task standard.

Ground Controlled Approach—A fixed, mobile, or transportable facility that provides radar arrival and RFC services within airspace designated by an approach control facility. Also called GCA.

Joint Facility—Air traffic control facility that divides responsibilities between the US Air Force and another military or civil agency.

Knowledge—Use of the mental process which enables a person to recall facts, identify concepts, apply rules or principles, solve problems, and think creatively. Knowledge is not always directly observable. A person manifests knowledge through performing associated overt tasks.

Local Operating Procedures—Supplemental procedures issued as letters of agreement, operations letters, operating instructions, memorandum of understanding, squadron regulations, operations plans, or base manual or instructions. Also called LOP.

Master Reference Index—A current listing of all mission essential documents necessary for ATC operations. The listing contains the document number, title and date.

Master Task and Technical Reference Listing—All work center/facility tasks and corresponding technical reference that supports qualification, upgrade, recurring, review and specialized training.

Master Training Plan—A comprehensive training plan for a work center. It can include the master task list (MTL), Qualification Training Packages (QTPs), Air Force Job Qualification Standard (AFJQS),

Career Field Education and Training Plan (CFETP), task breakdowns, commercial publications and any other document that supports training.

Micro En Route Automated Radar Tracking System—A modular, micro-computer-based air traffic system. Also called Micro-EARTS.

Multiple Approach—When more than one aircraft is on the radar final approach at the same time. Normal radar separation standards apply, and a controller controls only one aircraft, but may monitor two aircraft or two flights of two aircraft simultaneously.

North Mark—A beacon data block sent by the host computer to be displayed by the PIDP on the 360-degree magnetic bearing from the airport surveillance radar site. The North Mark is used to ensure correct range/azimuth orientation during periods of Center Radar Presentation use.

On-Call Time—A controller on-call must remain in the local area and be able to be contacted in the event it becomes necessary to open an air traffic control facility outside of normal operating hours. A controller on-call must not consume alcohol or take medications that effect duty status.

Objective—A statement that specifies what behavior is to be exhibited, the conditions under which behavior will be accomplished and the minimum standard of performance. Objectives describe only the behaviors that directly lead to or specifically satisfy a job performance requirement. An objective is a statement of instructional intent.

On-the-Job Training—Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade and job qualification training. Also called OJT.

Position Certification—An endorsement by the Chief, Standardization and Evaluation, Assistant Chief, Standardization and Evaluation, Chief, Training and Standardization, Assistant Chief, Training and Evaluation or Control Tower Operator examiner that the applicant has demonstrated the competence, qualifications and skill required to operate at a specific position.

Precision Approach Radar (PAR)—Radar displaying range, azimuth, and elevation (in relation to a glide slope) normally encompassing an area from 10 to 20 miles on final approach to a position on the runway intercepted by the glide slope.

Proficiency—In order to be proficient, a controller must perform air traffic control duties under normal workload conditions in each operating position they are certified in within the last month.

Qualification Training Package—An instructional package designed for use at the unit to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. It may be printed, computer-based or in other audiovisual media.

Qualified Controller—An individual who is position certified or facility rated and holds GS–2152 or Air Force Specialty Code 1C131 or above, holds current ratings or certifications as specified in one or more of the following facilities and has been awarded an 053, 056, or 364 SEI:

Control Tower—Control Tower Operator rating.

GCA or RFC—Ground Controlled Approach or Radar Final Controller rating.

RAPCON—Certifications in approach control, assistant approach control, and arrival control.

Radar and Tower Coordination System—A radar and tower coordination system (lights serve as a reminder to the tower controller that an arriving radar controlled aircraft is in a defined location, or at a prescribed position). This system may supplement or simplify the voice coordination between facilities. It

does not replace voice coordination.

Radar Approach Control—A fixed, mobile, or transportable radar facility that provides approach control, arrival and RFC services using surveillance radar. Also called RAPCON.

Radar Final Control—An air traffic control service that provides navigational guidance or approach monitoring during the final approach phase of flight. This service normally includes precision approach radar (PAR) approaches, instrument approach monitoring using precision approach radar equipment when final approach courses are coincident, flight following, airport surveillance radar (ASR) approaches and safety alert services. Additional services are provided within system capability. A controller assigned to the radar final control position (called the radar final controller) normally provides this service. Also called RFC.

Recurring Training—Training provided to periodically review selected current operational procedures and techniques.

Review Training—Training conducted for the purpose of correcting or precluding specific operational deficiencies. Review training is developed based on analysis of performance evaluations, supervisory observations, trends, operational evaluations, etc.

Radar Final Control Facility—A fixed, mobile, or transportable radar facility that provides radar final control service. (Precision Approach Radar rating required for award of Special Experience Identifier).

Runway Supervisory Unit—A portable or fixed shelter where non-air traffic control personnel observe arriving and departing aircraft. The unit is near the active runway, and has two-way air-ground communications. Also called RSU.

Runway Intrusion—A Controlled Movement Area violation that is the result of an unauthorized entry or erroneous occupation of a runway or other surface used for takeoff and landing of aircraft regardless of impact on aircraft safety. These incidents can be caused by aircraft, vehicles, pedestrians, or communication errors.

Skill—The ability to perform a job-related activity that contributes to the effective performance of a task. Skills involve physical or manipulative activities that often require knowledge for their execution. All skills are actions having specific requirements for speed, accuracy or coordination.

Skill Level—The level of qualification within an awarded Air Force specialty, shown by the fourth digit of the Air Force Specialty Code.

Special Evaluation—An evaluation other than an initial evaluation and used to evaluate a qualified or suspended controller's performance.

Special Experience Identifier—A three-character code that identifies special experience training not otherwise identified in the personnel data system. Special Experience Identifiers may permit rapid identification of individuals with special qualifications to meet peacetime assignments. They provide a means for identifying critical manning requirements during wartime or contingency operations when little lead time is available for training personnel in specific technical skills.

Specialty Training Standard—An Air Force publication that describes an Air Force specialty in terms of tasks and knowledge which an airman in that specialty may be expected to perform and identifies the training provided to achieve a 3, 5, 7 skill level within an enlisted Air Force specialty. It further serves as a contract between Air Education and Training Command and the functional user to show the overall training requirements for an Air Force specialty code that are taught in formal schools and

correspondence schools. Also called STS.

Standard—An exact value, a physical entity or an abstract concept that the appropriate authority, custom or common consent sets up and defines to serve as a reference, model or rule in measuring quantities or qualities, developing practices or procedures or evaluating results. A fixed quantity or quality.

Stop Training —When a trainee is unable to accomplish knowledge based (including classroom instruction), simulator (including static scenarios), and OJT due to unforeseen events or inability to meet standards.

Simulation Scenario —Scripted scenarios designed to develop or maintain a controller's skills using simulation equipment (any simulation equipment developed for ATC use) or any static environment (to include non-radar and tower static boards).

Standby Time—Time during published flying hours when a facility is on standby and the controllers are immediately available to return the facility to operation within the time limit the Operations Group Commander specifies.

Supervisor of Flying—A rated officer authorized by the flying unit commander to monitor and supervise current flight operations. A Supervisor of Flying may perform duties from the control tower. Also called SOF.

Supplemental Training—Training for a portion of an Air Force Specialty without a change in Air Force Specialty Code. Formal training on new equipment, methods and technology that is not suited for on-the-job training.

Task—A unit of work activity or operation that forms a significant part of a duty. A task usually has clear beginning and ending points and directly observable or otherwise measurable processes, frequently but not always resulting in a product that can be evaluated for quantity, quality or fitness in the work environment. A task is performed for its own sake; that is, it is not dependent upon other tasks, although it may fall in a sequence with other tasks in a duty or job array.

Task Certification Guide—A guide designed to provide individuals objectives, references and standards of performance for certification in specific tasks.

Training Status Code—A coding system used by base education and training personnel to identify, change and manage airman qualification and skill level upgrade processes. Refer to AFI 36-2201, Attachment 4 for a listing of each training status code and their definitions.

Uncontrolled Movement Areas—Taxiways and ramp areas not under the control of air traffic. NOTE: This definition is used in lieu of "non-movement area" as defined in the Federal Aviation Administration Pilot Controller Glossary.

Underrun or Overrun—Usually a non-stressed extension at each end of the runway. Do not use the extension as a landing area, except in instances where an aircraft emergency warrants its use. The extension is part of the aircraft movement area, but do not use the extension for spacing between aircraft.

Attachment 2

SAMPLE MEMORANDUM, SUSPENSION OF ATCS CERTIFICATE

MEMORANDUM FOR (Controller Concerned) (*date*)

FROM: (Unit Commander)

SUBJECT: ATCS Certificate Suspension (Pending Withdrawal)

1. Under the provisions of AFI 13-203, I suspend your ATCS certificate and restrict you from performing air traffic control duties. This suspension will remain in effect pending the results of the evaluation of your case. (*Insert a statement of substance of cause for suspension*.)

2. After receipt of the evaluation results, I may take action to withdraw your AFSC without further notice. If I, or the review authority, determines your withdrawal is for reasons within your control (for cause) it could result in an administrative discharge.

NOTE: If the controller is receiving an SRB add the following statement, "If I, or the review authority, determines withdrawal was for cause then I will initiate action to terminate and recoup your SRB."

3. You may consult with legal counsel and submit any written statement or documentary evidence to consider in evaluating this matter.

4. Acknowledge receipt of this memorandum by endorsement below within 3 workdays. Submit any statements or documents for consideration within 10 workdays.

(Signature of Unit Commander)

1st Ind, (Controller) (*date*)

TO: (Unit Commander)

1. I acknowledge receipt of ATCS certificate suspension and pending withdrawal.

2. I have been afforded the opportunity of consulting with legal counsel regarding this action. I was counseled by (name), (grade and title, if military), (address, if civilian)/I declined legal counsel.

3. I do/do not desire to attach a statement in my own behalf.

4. I agree/disagree with the proposed action.

(Signature of Controller Concerned)
(Name, Grade,) USAF

NOTE: Controller will initial directly above the phrases lined out in their endorsement.

Attachment 3

SAMPLE MEMORANDUM, CHANGE OF RECOMMENDED WITHDRAWAL CATEGORY

MEMORANDUM FOR (Controller Concerned)

FROM: (Unit Commander)

SUBJ: Change of Recommended ATCS Certificate Withdrawal Category

1. This is to inform you the evaluation of your case resulted in a change of category to my letter, (date), Subject: ATCS Certificate Suspension and Pending Withdrawal. You are hereby recommended for withdrawal under the provisions of AFI 13-203. (Statement of substance of cause for change in recommended withdrawal category.)
2. You may consult with legal counsel and may submit any written statement or documentary evidence you believe should be considered reference the change of recommended withdrawal category.
3. Acknowledge receipt of this memorandum by endorsement below within five workdays. Any statements or documents that you wish to be considered should be submitted with the return of your endorsement.

(Signature of Unit Commander)

1st Ind (*date*)

FROM: Controller)

TO: (Unit Commander)

1. I acknowledge receipt of change to recommended category of ATCS certificate withdrawal.
2. I have been afforded the opportunity of consulting with legal counsel regarding this action. I was counseled by (name), (grade and title, if military), (address, if civilian)/I declined legal counsel.
3. I have/have not attached a statement in my own behalf.
4. I agree/disagree with the proposed action.

NOTE: If change of category is from Fear of Controlling (medical) to "Other", then add the following paragraph.

5. I understand withdrawal action under the category of "Other" may result in:
   a. ATCS certificate removal for "cause" (initial).
   b. Termination/recoupment of SRB (initial).
   c. Possible administrative discharge action (initial).

(Signature of Controller Concerned)
(Name, Grade, USAF)

NOTE: Controller will initial directly above the phrases lined out in the endorsement.

Attachment 4

SAMPLE MEMORANDUM, FEAR OF CONTROLLING (FOC) STATEMENT

MEMORANDUM FOR (Unit Commander)

FROM: (Controller Concerned)

SUBJECT: Request for Withdrawal from ATC Duty For Fear of Controlling

1. IAW AFI 13-203, I hereby profess a fear of controlling (FOC) and voluntarily request permanent withdrawal from ATC duty. I understand if my FOC is not diagnosed as a medical disqualification by a military psychiatrist or psychologist and the (MAJCOM) Surgeon General, I may withdraw my statement and be returned to duty. If I persist with withdrawal from ATC duty, I am self-eliminating and my ATCS certificate will be withdrawn as a potential hazard to flight safety.

2. I submit the following information:

   a. Resume of ATC experience.

   b. Reason for requesting withdrawal is: I profess a fear of controlling and consider myself a hazard to flying safety.

(Explanation of reason.)

(Signature of Controller Concerned)
(Name, Grade, USAF)

Attachment 5

AFSC WITHDRAWAL CHECKLIST FOR CONTROLLERS WHO FAIL TO OBTAIN OR MAINTAIN POSITION CERTIFICATION OR FACILITY RATING (FTOR)

A5.1. Name_____Grade_____Date Assigned_____

A5.2. Initial Withdrawal Procedures:

A5.2.1. Stop training and document.

A5.2.2. Commander issues ATCS certificate suspension, pending withdrawal memorandum (**Attachment 2**).

A5.2.3. AOF/CC notifies MAJCOM OPR for ATC of pending withdrawal action.

A5.3. Investigation and Evaluation Procedures:

A5.3.1. After removal from training, get statements from:

A5.3.1.1. AOF/CC. This statement may include inputs from the AOF/DO, CCTLR, CSE, and CATCT. Individual statements from other staff members are optional. The AOF/CC statement must include:

A5.3.1.1.1. Date controller entered training.

A5.3.1.1.2. Summary of actions taken to correct deficiencies.

A5.3.1.1.3. Stop training days.

A5.3.1.2. Immediate Supervisor.

A5.3.2. If a physical condition could have impaired the ability of the controller to perform in a satisfactory manner, refer the controller to the base flight surgeon for an evaluation of medical qualification.

A5.3.3. The OSS Commander, with the aid of the base training manager, should evaluate the training given.

A5.4. Determination Procedures:

A5.4.1. If the commander's evaluation did not substantiate the recommended AFSC withdrawal, then:

A5.4.1.1. Return the controller to duty.

A5.4.1.2. Document return to training on AF Form 623a or suitable substitute.

A5.4.1.3. Notify MAJCOM OPR for ATC of return to duty.

A5.4.2. If the commander's evaluation substantiates AFSC withdrawal with no change in category, then for 1C131 personnel only, the immediate supervisor will initiate AF Form 2096, **Classification/ On-The-Job Training Action** and complete:

A5.4.2.1. Section II: Withdraw AFSC 1C151 and training status (TS) code "B". (Retrainees TS Code "F"). Enter AFSC 1C151 and TS code "T".

A5.4.2.2. Section III: Trainee must check appropriate block on AF Form 2096, **Classification/ On-The-Job Training Action.**

A5.4.2.3. Enter the following statement in the remarks section of AF Form 2096 and have the trainee sign: "I have been briefed on my promotion status while being withdrawn from upgrade training. I further understand that removal from training based on failure to progress may result in separation."

A5.4.3. For all AFSCs, OSS Commander's cover memorandum will include:

A5.4.3.1. The course of action recommended.

A5.4.3.2. Response to allegations made by the controller who is recommended for withdrawal.

A5.4.3.3. Any inconsistent data or recommendations in the ATC staff's supporting statements.

A5.4.3.4. Any disciplinary or administrative actions taken or pending against the controller that support the withdrawal.

A5.4.3.5. One of the following statements:

A5.4.3.5.1. Member did not receive an SRB.

A5.4.3.5.2. Recommendation whether or not to recoup and terminate SRB (followed by OSS Commander's rationale).

A5.4.4. If the OSS Commander's evaluation substantiates recommended withdrawal with a change in the category initially recommended, then:

A5.4.4.1. Proceed to the new category checklist.

A5.4.4.2. Suspend the controller's ATCS certificate under the new category (see **Attachment 3**)

A5.5. Processing Procedures:

A5.5.1. Date all documents and stamp "For Official Use Only".

A5.5.2. The withdrawal package must include:

A5.5.2.1. OSS Commander's cover letter.

A5.5.2.2. Suspension letter (**Attachment 2**).

A5.5.2.3. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued

A5.5.2.4. AOF/CC statement.

A5.5.2.5. Immediate supervisor's statement.

A5.5.2.6. Controller's statement with any supporting documents (if appropriate).

A5.5.2.7. Original or copy of AF Form 2096, Classification/On-The-Job Training Action (1C131 only).

A5.5.2.8. Last three OERs or EPRs (only for sub-standard performance) and any pertinent documents or statements deemed necessary.

A5.5.2.9. AF Form 623 (with original documents).

A5.5.3. Send original to servicing MPF classification and training section. Unit will file one copy of withdrawal package according to AFMAN 37-138, Records Deposition—Procedures and Responsibilities.

A5.6. Unit Action after MAJCOM Review

A5.6.1. AFSC withdrawal action taken:

A5.6.1.1. CCTLR print "VOID" across face of ATCS certificate.

A5.6.1.2. For 1C131 personnel initiate AF Form 2096 withdrawing AFSC and TS code "T" and enter into appropriate reporting identifier and TS code "T" (if member has a secondary AFSC, contact classification section of your MPF for necessary actions).

A5.6.1.3. For 1C151 and 13MX or above, initiate AF Form 2096 withdrawing AFSC 1C1X1 or 13MX.

A5.6.2. MAJCOM recommends return to duty.

A5.6.2.1. Return the controller to duty.

A5.6.2.2. Document return to training on AF Form 623a or suitable substitute.

A5.6.2.3. Initiate AF Form 2096 withdrawing TS code "T" and enter into appropriate TS code.

Attachment 6

ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR DRUG ABUSE (DA)

A6.1. Name_____Grade_____Date Assigned_____

A6.2. Suspension Procedures:

A6.2.1. OSS Commander issues ATCS certificate suspension letter (**Attachment 2**).

A6.2.2. AOF/CC notifies MAJCOM OPR for ATC of ATCS certificate suspension.

A6.3. Evaluation Procedures: The OSS Commander will:

A6.3.1. Obtain necessary written statements.

A6.3.2. Refer suspended controller to base flight surgeon for documentation of drug abuse on AF Form 422, *Physical Profile Serial Report* (AFI 48-123), and evaluation of effect of drug use on ATC duty.

A6.3.3. Evaluate evidence and facts of the case and determine if the controller is a drug abuser (AFI 36-2701).

A6.4. Determination Procedures:

A6.4.1. If the OSS Commander's evaluation did not result in proof of drug abuse:

A6.4.1.1. Return the controller to duty.

A6.4.1.2. Notify MAJCOM OPR for ATC.

A6.4.2. If the controller was identified as a drug abuser, was convicted of violating a Federal or State statute related to drugs, had a positive urinalysis, or self admitted drug use and there was no change in the category stated in the suspension letter, complete commander's cover letter to include:

A6.4.2.1. Allegations made by the suspended controller.

A6.4.2.2. A statement that the withdrawal is for cause.

A6.4.2.3. Any inconsistent data or recommendations in the statements obtained during the investigation.

A6.4.2.4. Include one of these statements (1C1X1s only) (AFI 36-2206, *Reenlistment in the United States Air Force*):

A6.4.2.5. Member did not receive an SRB.

A6.4.2.6. I do not recommend SRB recoupment and termination (rationale).

A6.4.2.7. I recommend SRB recoupment and termination based on withdrawal of the controller's ATCS certificate for cause.

A6.4.3. If the OSS Commander did or did not classify the controller as a drug abuser but substantiated the recommendation for withdrawal with a change in the category stated in the suspension letter, then:

A6.4.3.1. Issue the controller notification of the change with the Change of Recommended Withdrawal Category memorandum (**Attachment 3**).

A6.4.3.2. Follow the checklist for new category.

A6.5. Processing Procedures: The package must include:

A6.5.1. OSS Commander's cover letter.

A6.5.2. Change of Recommended Withdrawal Category letter (if appropriate).

A6.5.3. Suspension of ATCS certificate letter.

A6.5.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A6.5.5. OSI and/or security police reports that relate to the drug abuse to include letter of release for inclusion in withdrawal package.

A6.5.6. Controller's statement with any attached supporting documents (if appropriate).

A6.5.7. Other pertinent documents/statements deemed necessary.

A6.5.8. Date all documents and stamp "For Official Use Only". Send original and one copy of withdrawal package to MAJCOM OPR for ATC. Unit will file one copy according to AFMAN 37-138.

A6.6. Unit Action After MAJCOM Review:

A6.6.1. If ATCS certificate withdrawal action taken:

A6.6.1.1. CCTLR voids the ATCS certificate.

A6.6.1.2. Initiate AF Form 2096 action to remove AFSC.

A6.6.2. If the MAJCOM does not withdraw ATCS certificate:

A6.6.2.1. Return the controller to duty.

A6.6.2.2. Annotate the individual’s training records.

Attachment 7

ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR ALCOHOL ABUSE

A7.1. Name_____Grade_____Date Assigned_____

A7.2. Suspension Procedures:

A7.2.1. OSS Commander issues ATCS certificate suspension letter (**Attachment 2**).

A7.2.2. AOF/CC notifies MAJCOM OPR for ATC of ATCS certificate suspension.

A7.3. Investigation/Evaluation Procedures: The OSS Commander will:

A7.3.1. Obtain statements from anyone deemed appropriate if alcohol abuse had an adverse impact on the member's duty performance

A7.3.2. Refer suspended controller to base flight surgeon for evaluation of effects of alcohol abuse and verify the controller meets the ATC medical qualifications in AFI 48-123.

A7.3.3. Evaluate the statements, medical evaluation(s), Rehabilitation Committee remarks conducted according to AFI 36-2701, nature of incident, and the impact of alcohol abuse on the controller's duty performance.

A7.4. Determination Procedures:

A7.4.1. If the OSS Commander's evaluation does not substantiate withdrawal then:

A7.4.1.1. Return the controller to duty.

A7.4.1.2. Notify MAJCOM OPR for ATC.

A7.4.2. If the OSS Commander's evaluation determines that withdrawal is warranted or the controller cannot be medically cleared for ATC duty, or the controller refuses rehabilitation, prepare a withdrawal memorandum for the OSS Commander which addresses the following items:

A7.4.2.1. Recommendation for withdrawal from ATC.

A7.4.2.2. Allegations made by the suspended controller.

A7.4.2.3. Recommendation for retention or revocation of authority to wear the ATC badge or a statement that the authority to wear the badge was not given.

A7.4.2.4. Inconsistent data or recommendations in the ATC staff's supporting statements.

A7.4.2.5. One of the following statements (1C1X1s only) (AFI 36-2606):

A7.4.2.5.1. Member did not receive an SRB.

A7.4.2.5.2. I do not recommend SRB recoupment and termination (rationale).

A7.4.2.5.3. Recommendation for SRB recoupment and termination based on withdrawal of the controller's ATCS certificate for cause.

A7.4.2.6. Include member’s enrollment in, or date of previous completion of, an alcohol rehabilitation program. Indicate whether or not program was in-residence or social actions group.

A7.4.3. If the OSS Commander's evaluation substantiated recommended withdrawal with a change in the category stated in the suspension letter, then:

A7.4.3.1. Issue the controller notification of the change with the Change of Recommended Withdrawal Category letter (**Attachment 3**).

A7.4.3.2. Follow checklist for new category.

A7.5. Processing Procedures: The withdrawal package must include:

A7.5.1. OSS Commander's cover letter.

A7.5.2. Change of Recommended Withdrawal Category letter (if appropriate).

A7.5.3. Suspension of ATCS certificate letter.

A7.5.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A7.5.5. UIF (if established and information is associated with withdrawal case).

A7.5.6. Controller's statement with any attached supporting documents (if appropriate).

A7.5.7. Pertinent documents/statements deemed necessary (blood alcohol test results, rehabilitation committee remarks, etc.).

A7.5.8. Date all documents and stamp "For Official Use Only".

A7.5.9. Forward original and one copy of withdrawal package to MAJCOM OPR for ATC. Unit will file one copy according to AFMAN 37-138.

A7.6. Unit Action After MAJCOM Review:

A7.6.1. If ATCS certificate withdrawal action taken:

A7.6.1.1. CCTLR voids the ATCS certificate.

A7.6.1.2. Initiate AF Form 2096 action to remove AFSC.

A7.6.2. If the MAJCOM does not withdraw ATCS certificate:

A7.6.2.1. Return the controller to duty.

A7.6.2.2. Annotate the individual’s training records.

Attachment 8

ATCS CERTIFICATE WITHDRAWAL CHECKLIST FOR HAZARD/POTENTIAL HAZARD TO FLIGHT SAFETY DUE TO CHARACTER AND BEHAVIOR DISORDER

A8.1. Name_____Grade_____Date assigned_____

A8.2. Suspension Procedures:

A8.2.1. OSS Commander issues ATCS certificate suspension letter (**Attachment 2**).

A8.2.2. AOF/CC notifies MAJCOM OPR for ATC of ATCS certificate suspension.

A8.3. Evaluation Procedures: The OSS Commander will:

A8.3.1. Obtain statements from personnel concerned. Include any actions which make the controller a hazard or potential hazard to flying safety.

A8.3.2. Refer suspended controller to base flight surgeon to determine if there are medical problems which may have caused the actions for recommended withdrawal and verification that the controller meets the ATC medical requirements in AFI 48-123.

A8.3.3. Evaluate statements, medical evaluation(s), and controller's duty performance as related to flying safety.

A8.4. Determination Procedures:

A8.4.1. If the OSS Commander's evaluation does not substantiate the recommended withdrawal, then:

A8.4.1.1. Return controller to duty.

A8.4.1.2. Notify MAJCOM OPR for ATC.

A8.4.2. If the commander's evaluation does substantiate recommended withdrawal with no change in the category stated in the suspension letter, the commander's cover letter will include:

A8.4.2.1. Allegations made by the suspended controller.

A8.4.2.2. An explanation of why the controller is a hazard or potential hazard to flight safety.

A8.4.2.3. Recommendation for retention or revocation of authority to wear the ATC badge or a statement that the authority to wear the badge was not given.

A8.4.2.4. Inconsistent data or recommendations in the ATC staff's supporting statements.

A8.4.2.5. One of the following statements (1C1X1s) (AFI 36-2606):

A8.4.2.5.1. Member did not receive an SRB.

A8.4.2.5.2. I do not recommend SRB recoupment and termination (rationale).

A8.4.2.5.3. I recommend SRB recoupment and termination based on withdrawal of the controller's ATCS certificate for cause.

A8.4.3. If the OSS Commander's evaluation substantiates recommended withdrawal with a change in the category stated in the suspension letter, then:

A8.4.3.1. Issue the controller notification of the change with the Change of Recommended Withdrawal Category letter (**Attachment 3**).

A8.4.3.2. Follow checklist for new category.

A8.5. Processing Procedures:

A8.5.1. The withdrawal package will include:

A8.5.1.1. OSS Commander's cover letter.

A8.5.1.2. Change of Recommended Withdrawal Category letter (if appropriate).

A8.5.1.3. Suspension of ATCS certificate letter.

A8.5.1.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A8.5.1.5. Controller's statement with any attached supporting documents (if appropriate).

A8.5.1.6. Last three OERs or EPRs and any pertinent documents or statements deemed necessary.

A8.5.2. Date all documents and stamp "For Official Use Only".

A8.5.3. Send original and one copy of withdrawal package to MAJCOM OPR for ATC.

A8.5.4. Unit will file one copy according to AFMAN 37-138.

A8.6. Unit Action After MAJCOM Review:

A8.6.1. If the ATCS certificate withdrawal action taken:

A8.6.1.1. Ensure CCTLR voids the ATCS certificate.

A8.6.1.2. Initiate AF Form 2096 action to remove AFSC.

A8.6.2. If the MAJCOM does not withdraw ATCS certificate:

A8.6.2.1. Return the controller to duty.

A8.6.2.2. Annotate the individual’s training records.

Attachment 9

ATCS CERTIFICATE WITHDRAWAL CHECKLIST UNDER CATEGORY "OTHER"

A9.1. Name_____Grade_____Date Assigned_____

A9.2. Suspension Procedures:

A9.2.1. OSS Commander issues ATCS certificate suspension letter (**Attachment 2**).

A9.2.2. AOF/CC notifies MAJCOM OPR for ATC of ATCS certificate suspension.

A9.3. Evaluation Procedures: The OSS Commander will:

A9.3.1. Obtain statements from appropriate personnel immediately after ATCS certificate suspension. Include any actions which make the controller a hazard to flying safety or incapable of performing as an air traffic controller.

A9.3.2. Refer the suspended controller to the base flight surgeon to determine if there are medical problems which caused the actions for recommended withdrawal and/or verify the controller meets the ATC medical requirements in AFI 48-123.

A9.3.3. Evaluate the statements, medical evaluation(s), and whether or not controller's duty performance is a hazard to flying safety or incompatible with ATC.

A9.4. Determination Procedures:

A9.4.1. If the OSS Commander's evaluation did not substantiate the recommended withdrawal, then:

A9.4.1.1. Return controller to duty.

A9.4.1.2. Notify MAJCOM OPR for ATC of reinstatement.

A9.4.2. If the OSS Commander's evaluation substantiates recommended withdrawal with no change in the category stated in the suspension letter, prepare the OSS Commander's cover letter to include:

A9.4.2.1. Allegations made by the suspended controller.

A9.4.2.2. Why the controller is a hazard to flight safety or incompatible with ATC.

A9.4.2.3. Recommendation for retention or revocation of authority to wear the ATC badge, or a statement that the authority to wear the badge was not given.

A9.4.2.4. Inconsistent data or recommendations in the ATC staff's supporting statements.

A9.4.2.5. One of these statements (1C1X1) (AFI 36-2606):

A9.4.2.5.1. Member did not receive an SRB.

A9.4.2.5.2. I do not recommend SRB recoupment and termination (rationale).

A9.4.2.5.3. I recommend SRB recoupment and termination based on withdrawal of the controller's ATCS certificate for cause.

A9.4.3. If the OSS Commander's evaluation does substantiate withdrawal with a change in the category stated in the suspension letter, then:

A9.4.3.1. Issue the controller notification of the change with the Change of Recommended Withdrawal Category letter (**Attachment 3**).

A9.4.3.2. Follow the checklist for the new category.

A9.5. Processing Procedures:

A9.5.1. The withdrawal package must include:

A9.5.1.1. OSS Commander's cover letter.

A9.5.1.2. Change of Recommended Withdrawal Category letter (if appropriate).

A9.5.1.3. Suspension of ATCS certificate letter.

A9.5.1.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A9.5.1.5. Controller's statement with any attached supporting documents (if appropriate). **Attachment 4** must be included if self-eliminating as a hazard to flight safety under unsubstantiated fear of controlling.

A9.5.1.6. Other pertinent documents/statements deemed necessary.

A9.5.2. Ensure all documents are dated and stamped "For Official Use Only."

A9.5.3. Send original and one copy of withdrawal package to MAJCOM OPR for ATC. Unit will retain and file one copy according AFMAN 37-138.

A9.6. Unit Action After MAJCOM Review:

A9.6.1. If the MAJCOM approves ATCS certificate withdrawal action:

A9.6.1.1. CCTLR voids the ATCS certificate.

A9.6.1.2. Initiate AF Form 2096 action to remove AFSC.

A9.6.2. If the MAJCOM does not withdraw ATCS certificate:

A9.6.2.1. Return the controller to duty.

A9.6.2.2. Annotate the individual’s training records.

Attachment 10

IC 2003-1 TO AFI 13-203, AIR TRAFFIC CONTROL

5 MAY 2003

SUMMARY OF REVISIONS

IC 2003-1 major changes include: **Chapter 2**: UMD and Non-UMD position descriptions and requirements, defined blood-alcohol limit for ATC duty, provided duty hours clarification, added controller training in progress notification requirements. **Chapter 3**: Added procedures for use of AF Form 3622 and Tower Simulator System references. **Chapter 4**: Added wind phraseology, standardized wind variability criteria, revised Snow Effects on ILS Glideslopes and Precision Approach Critical Area responsibilities. **Chapter 5**: Revised Primary Crash Alarm System requirements, clarified rotating beacon guidance and added evacuation alarm testing requirements. **Chapter 7**: Revised guidance on secondary radar use. **Chapter 8**: Revised night vision goggle use guidance. **Chapter 10**: Revised Front Load Training, master training record and technical reference guidance. **Chapter 11**: Added guidance on arrival control certification, apprentice controller training guidance and stop training documentation requirements. **Chapter 14**: Revised training/proficiency documentation and withdrawal action requirements. **Attachment 1**: Added definitions of proficiency, ATC duty and controlled movement area violation. Minor changes were made throughout and include correcting spelling, reference updates and editing errors. A star (|) indicates revision from the previous edition.

This instruction implements AFPD 13-2, *Air Traffic Control, Airspace, and Airfield and Range Management*. It directs the management of US Air Force, AFRC and ANG air traffic systems, personnel (to included DoD and contract civilians) and facilities. It directs the administration of facilities, the use of equipment, the operation of control towers and air traffic control (ATC) radar facilities and the training of USAF air traffic controllers. HQ Air Force Flight Standards Agency, Director of Airfield Operations (AFFSA/XA) must approve all supplements and interim changes to previously approved supplements to this directive prior to implementation. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in the instruction in Title 10, United States Code, Section 8014. Privacy Act system of records notice F036 AFFSA A applies. **Attachment 1** lists References and Supporting Information used in this instruction.

2.1.1. Qualifications for selection as CCTLR: Must hold PAFSC 1C100, 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only). Must have performed ATC duties for at least 5 years (not including instructor duty), and have 1 year experience in the type facility to manage, excluding RFC.

2.1.1.1. A Complex CCTLR must hold at least AFSC 1C191.

2.1.1.2. When reduced facility staffing warrants, MAJCOMs may approve temporary appointments of otherwise qualified GS-2152s to CCTLR positions for a period not to exceed 120 days in duration. MAJCOM approved appointments will be forwarded to HQ AFFSA/XA.

NOTE: Ensure Personnel Action (SF 52) is submitted to servicing civilian personnel office prior to start date of temporary appointment.

2.1.3.1.1 Establish a program to ensure controllers maintain proficiency in all positions they are certified in. This program must include minimum monthly position time requirements, a means of tracking position time, and actions that will be taken when a controller fails to meet requirements. When positions are combined, proficiency time may count for each position provided the controller performs ATC duties associated with each position under normal workload conditions. The CCTLR should outline any additional actions to be taken, beyond those required in para **14.4.**, when controllers do not meet proficiency requirements. CCTLRs will use the definition of proficiency in **Attachment 1** to clearly define traffic conditions that must exist in order to count proficiency time. Controllers who fail to meet CCTLR established monthly proficiency requirements will have their certification/ratings suspended.

2.2.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.2.1.1.1. When reduced facility staffing warrants, MAJCOMs may approve temporary appointments of otherwise qualified GS-2152s to CCTLR positions for a period not to exceed 120 days in duration. MAJCOM approved appointments will be forwarded to HQ AFFSA/XA.

NOTE: Ensure Personnel Action (SF 52) is submitted to servicing civilian personnel office prior to start date of temporary appointment.

2.2.1.2. Must be certified in all positions, in all facilities before assuming duties and maintain proficiency.

2.2.1.2.1. At RAPCON locations with high density traffic (more than 25,000 operations quarterly), the CATCT must maintain proficiency in approach control, assistant approach control, and local control positions rather than all positions.

2.2.1.2.2. At short tour locations, the CATCT must be certified in a facility before assuming duties and maintain proficiency.

NOTE: An assistant CATCT must be available to handle training issues in the facility in which the CATCT is not rated.

2.2.1.4. Attendance at Instructional Systems Designer Course, #J3AZR3S200010, is recommended. Because course nomenclatures can change without notice, verify correct course number and enrollment procedures at *Education and Training Course Announcement (ETCA), https://etca.randolph.af.mil* formerly AFCAT 36-2223, *USAF Formal Schools*.

2.2.2.16. Build and maintain sector and scenario simulation products, as described in **PART 3**.

2.2.2.17. Train controllers on the use of the simulation equipment, as described in **PART 3**.

2.2.2.19. Ensure Training Status Codes (TSC) reflect accurate status of personnel assigned according to AFI 36-2201 Vol 3, Air Force Training Program on the Job Training Administration, **Attachment 3**.

2.3.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.3.1.2. Must be certified in all positions in all facilities before assuming duties and maintain proficiency.

2.3.1.2.1. At short tour locations, must be certified in all positions in the most complex facility before assuming duties and maintain proficiency.

2.3.1.2.2. An assistant CSE (CTO examiner when appropriate) must be available to conduct ratings in the facility in which the CSE is not rated.

2.4.1.1. Must hold AFSC 1C191, or 1C171 (GS-2152 at ANG, AFRC, and USAFA bases only) and have performed ATC duties for at least 5 years (not including instructor duty).

2.4.1.2. Must be certified in all positions in all facilities before assuming duties and maintain proficiency.

2.4.1.2.1. At short tour locations, must be certified in all positions in the most complex facility before assuming duties and maintain proficiency.

2.4.1.2.2. An assistant TSN (CTO examiner when appropriate) must be available to conduct ratings in the facility the CSE does not hold ratings.

2.6.1.1. Must hold PAFSC N1C191, N1C171, or GS-2152 with automation equivalency, performed ATC automation duties for at least 3 years, and have one year experience in type of automation work center to manage.

2.6.2.2.5. Responsible for the automated ATC radar system database administration, continuous data recording (CDR), playback systems and the development, implementation, and maintenance of low altitude alerting systems. Coordinate with TERPS to obtain MAJCOM approved minimum safe altitude warning (MSAW) and minimum vectoring altitude (MVA) data.

2.8.1.1.1. Must be a 1C191 or 1C171 controller, certified in all positions, WS qualified and maintain proficiency. Must have performed ATC duties for at least 5 years (not including instructor duty) and have one year experience in the type facility to manage, excluding RFC.

2.8.2.1.1. Must hold AFSC 1C191, 1C171, 1C151 or GS2152 and have performed ATC duties for at least 4 years.

2.8.2.1.3. Must be certified in all positions in the facility where ACATCT support is provided.

2.8.3.1.1. Must hold AFSC 1C191, 1C171, or GS2152 and have performed ATC duties for at least 5 years.

2.8.3.1.3. Must be certified in all positions in the facility where ACSE support is provided.

2.8.4.1.1. Must hold AFSC 1C191, 1C171, or GS2152 and have performed ATC duties for at least 5 years.

2.8.4.1.3. Must be certified in all positions, in the facility where assuming duties and maintain proficiency.

2.9.4. When unusual circumstances temporarily reduce air traffic density and/or complexity might dictate or allow control positions to be combined (e.g. weather related cancellation of wing flying; deployment of wing aircraft; scarcity of qualified ATC personnel, etc) the circumstances should be included as a note/memo for record on the AF 3616 at the beginning and again at the conclusion of the circumstantial anomaly (return to normal). This documentation should be retained for justifying authorization levels during subsequent manpower studies.

2.10.1.1. Military controllers must meet physical qualifications according to AFI 48-123*, Medical Examination and Medical Standards.* Civilian controllers must meet physical qualifications according to FAA medical certification standards (FAR Part 67).

2.10.1.6. Controllers must not perform ATC duties, nor directly supervise other controllers, while under the influence of alcohol (BAC of .04 or greater) or within 12 hours of consuming any amount of alcohol. If alcohol is used during off duty time, it should be conservative so an individual's mental alertness and

ability to perform are not reduced by the after effects ("hangover") of alcohol. Abstinence 12 hours before commencing ATC duties does not guarantee blood alcohol limits below .04 at the start of duty when large amounts are consumed.

2.10.2.4. Duty time begins with the first scheduled duty, either ATC or non-ATC. Once duty time begins, it is continuous. After 10 hours of continuous duty, controllers must not perform further ATC duty. A 12-hour uninterrupted break (8 hours when unforeseen events occur) must occur before the controller's next scheduled duty time requiring performance of ATC duties. Controllers must have at least 24 hours of uninterrupted, off duty time following 6 consecutive days of duty.

2.10.3.5. Unqualified controllers, who have never previously held a GCA or RFC certification, must not monitor an instrument approach, nor perform as a final controller, when the ceiling is less than 1,000 feet, or the visibility is less than 3 miles, unless being formally evaluated for position certification or facility rating.

2.10.3.5.1. Unqualified controllers, regardless of previous experience, must not control emergency aircraft on radar final approach when IFR weather conditions (ceiling is less than 1,000 feet, or the visibility is less than 3 miles) exist, even when being formally evaluated.

2.10.3.5.2. CCTLRs will ensure procedures are established to notify pilots when controller qualification training is in progress in the PAR position. This notification requirement can be satisfied by inclusion on ATIS recording/broadcast. EXAMPLE: "Controller training in progress during Radar Final" .

3.1.2. Any FAA approved form, as determined by the type of printing system, may be used.

3.1.7. **AF Form 3622, Air Traffic Control/Weather Certification and Rating Record**. Use this form to document limited weather certifications, ATC position certifications, and/or facility ratings. When transcribing information onto a new AF Form 3622, the CSE, ACSE, TSN, or CTO examiner must sign the examiner's signature block.

3.6.2.3. Develop static lab training or Tower Simulation System (TSS) scenarios for control tower controllers that emphasize interaction of new MDS aircraft operations with existing operations.

4.5.1. Issue surface wind when clearing aircraft to takeoff, when clearing an aircraft to land, touch-and-go, stop-and-go, for low approach, or for the option. Restate the landing runway whenever there is a possibility of a conflict with another aircraft that is using or is planning to use another runway.

PHRASEOLOGY - WIND (surface wind in direction and velocity). CLEARED FOR TAKEOFF/ CLEARED TO LAND.

4.5.3. When issuing variable wind information, use variable wind criteria (changes in wind direction of 60 degrees or more when the wind speed is 6 knots or more). *EXAMPLE*: "WIND THREE ONE ZERO AT ONE FIVE, VARIABLE BETWEEN TWO SEVEN ZERO AND THREE FOUR ZERO." The OG/CC may waive the requirement to issue variable winds, for reasons of operational advantage or pattern efficiency, to wing aircraft. If waived, document procedures in the base Airfield Operations Instruction .

4.9.5. **Rolling/boundary notification.** Automation is an authorized/approved method to establish non-verbal rolling/ boundary notification for each departing aircraft.

4.9.6. Automatic Releases. Cancel automatic releases during instrument meteorological conditions. Include these procedures in an LOP.

4.11. Opposite Direction Traffic. Define opposite direction procedures in the base airfield operations instruction; and LOA if the FAA provides radar services. All coordination will include the phrase "OPPOSITE DIRECTION DEPARTURE OR ARRIVAL, RUNWAY (NUMBER). "

4.17.4 Snow Effects on ILS Glide Slopes: Snow accumulation must be removed from specific areas around the glide slope long before causing the glide angle to go out of tolerance. Follow procedures outlined in the base airfield operations instruction and Snow and Ice Control Plan to ensure the snow does not impact the glide slope signal. Advise Airfield Management and/or ATCALS Maintenance, as appropriate, when snow accumulation or drifting on the airfield may impact system reliability. Remove the system from service when advised by ATCALS Maintenance that accumulation has exceeded technical limits IAW maintenance T.O.s, when the RSI remains in alarm after attempted resets, or when system anomalies are reported by pilots on final, IAW FAAO 7110.65. The OG/CC determines if a local flyability check and/or special flight inspection is required before returning the system to service or if pilots continue to report anomalies in the signal.

4.20. Precision Approach Critical Areas. The OG/CC will identify precision approach critical areas in the base airfield operations instruction, ensure the appropriate signs/markings are posted, and develop an LOP to ensure critical areas are protected, as appropriate. The following areas must be protected to avoid signal interference: The localizer (**Figure 4.1.**), the glide slope (**Figure 4.2.**) and ILS CAT II/PAR touchdown area (**Figure 4.3.**), MMLS azimuth critical area (**Figure 4.4.**) and MMLS elevation critical area (**Figure 4.5.**). Establish touchdown areas only when the height above touchdown (HAT) is less than 200 feet for either an ILS/MMLS or PAR approach. An instrument hold line prevents vehicles and aircraft from violating these areas during low weather operations. Markings, signs, and lighting requirements are in AFMAN 32-1076 and AFI 32-1042.

5.2 Change Note to Read: Wind sensor equipment is not considered a reliable time source unless connected to a direct coded time source.

5.3. **Weather Equipment Warning Devices.** Current observations and pertinent severe weather warnings, advisories, and pilot reports must be available at all controller positions. Where this is not possible, set up coordination procedures to ensure changes to the weather promptly reach each controller position. Equip automatic weather displays with a visual and aural alarm system suited to local operational needs. Facilities with multiple weather displays need only have the aural alarms operational at one position. CCTLR shall designate, in writing, one operating position that is responsible for collecting and disseminating weather data during equipment outages.

5.5. Primary Crash Alarm System (PCAS). Define procedures and conditions for activation in the base airfield operations instruction. Limit agencies with two-way telephones to the control tower, base operations, fire department, and the medical center. Additional agencies may have receive-only capability. The tower PCAS must have a visual system indicating when each two-way party on the PCAS picks up the handset.

NOTE: The total number allowed on the net must not exceed the capacity of the system or minimize signal strength and quality.

5.7.3 If the tower does not operate 24-hours a day**,** establish procedures in an LOP to ensure the airport rotating beacon is turned on at night and during daylight hours when the weather is below VFR minimums.

NOTE: Rotating beacons are an aid to navigation, not an indicator of an open/closed airfield.

5.16.1. All system interface architectures use the form/fit/ function replacement "150-ohm" microphone element (NSN 5965-01-447-29**8**6). Microphone elements are ordered through base supply.

5.17. Emergency Warning and Evacuation Alarms. When evacuation alarms are installed, AOF/CCs must coordinate with the Chief of ATCALS Maintenance to ensure written procedures are established in a local operating procedure (LOP) for testing the alarms. Document results of the test on the AF Form 3616.

6.9.1. Automatic releases are not authorized during instrument meteorological conditions (IMC).

7.1.2. A facility may remote a radar operated by non-ATC agencies and use it for ATC purposes if the radar is satisfactorily flight checked according to AFMAN 11-225. The non-ATC agency must not alter radar information furnished to the ATC facility without prior notification.

7.3.1. CCTLRs must provide written guidance for use of the AN/TPX-49A during equipment checks and when verifying beacon range accuracy before providing secondary radar-only service during temporary primary radar outage conditions or when secondary radar service is provided outside the coverage of primary radar. Continually display the AN/TPX-49A generated target to verify system accuracy whenever primary radar is inoperative and secondary radar is in use. If using a code other than 6666, ensure maintenance sets the displayed altitude to greater than 60,000 feet (600) to prevent erroneous Traffic and Collision Avoidance System (TCAS) alerts to TCAS-equipped aircraft.

7.3.3. Continually display the AN/TPX-49A generated target to verify system accuracy when secondary radar service is provided outside the coverage of primary radar.

8.9. Night Vision Device (NVD) Use for ATC.

8.9.1. NVDs, as specified below, can be used as an aid for air traffic controllers to assist in maintaining air traffic situation awareness and airfield surveillance during periods of aircraft operations at airfields with reduced lighting configurations.

8.9.1.1. NVDs used for ATC purposes must be binocular type and must not be affixed to any head strap, helmet or any other retention device.

8.9.1.2. Minimum acceptable NVD binocular optics will be comprised of two Generation III image intensifier tubes and two objective lenses/eye pieces.

8.9.2. Procedures for NVD use for ATC must be published in the Base Airfield Operations Instruction, and any other appropriate LOPs. As a minimum, the following areas must be addressed:

8.9.2.1. Scheduling procedures.

8.9.2.2. Notification/coordination requirements, i.e. publication of NOTAMs, inclusion of remarks in FLIPS, etc.

8.9.2.3. Weather/lunar illumination requirements.

8.9.2.4. NVD taxi routes (ground vehicle and/or aircraft) and NVD Traffic Pattern, to include pattern entry/re-entry points.

8.9.2.5. Traffic pattern/flow restrictions, i.e: maximum traffic density, cut-offs for returning to normal lighting configurations for arriving non-participants, etc. NOTE: Nonparticipating aircraft will not mix with participating NVD aircraft in any traffic pattern or on any controlled movement area

8.9.2.6. Limitations on ATC separation responsibilities.

8.9.2.7. Termination/Restart procedures for:

8.9.2.7.1. Transitions between reduced and normal airfield lighting configurations to accommodate non-participating arrivals/departures.

8.9.2.7.2. Emergency "Knock it off"/termination .

8.9.2.8. Airfield lighting configurations (may vary to reflect mission/force protection requirements)

8.9.2.9. Internal tower cab lighting requirements.

8.9.2.10. Aircraft lighting requirements.

8.9.2.11. Vehicle lighting requirements. Vehicles operating lights-out during periods of reduced airfield lighting should mount an IR strobe on the vehicle's roof so tower/aircrew can see the vehicle on the airfield. Vehicles are still required to meet AFI 13-213 requirements to maintain radio communications with the control tower while operating within the movement area. Vehicle operations should be kept to a minimum during periods of reduced airfield lighting.

8.9.3 Air traffic control personnel (military/civilian) shall be trained in the proper use of NVDs. Identify NVD tasks on AF Form 797 with applicable training references (TR). Be sure to also include tasks that reflect use of associated equipment. The Chief Controller will determine applicable review training requirements and schedule appropriately.

8.9.4. Night Vision Device (NVD) for ATC Use During Aircrew NVD Training Missions. NOTE: There are currently no exceptions to FAR 91.209 granted by the FAA allowing aircraft lights out operations within any tower surface area airspace class within the U.S.

8.9.4.1. Overseas locations must check and comply with host-nation requirements/restrictions for airfield/aircraft reduced lighting.

8.9.4.2. Current NVD optics capabilities are insufficient to allow controllers to ensure visual separation between aircraft at every location within tower's designated airspace at all times under the best of conditions. Due to this fact and that many environmental factors e.g. nearby facility, street, and city lighting, etc., remain beyond the control of ATC and can greatly degrade NVD utility, NVDs shall not be used to provide positive air traffic control within the tower surface area.

8.9.4.3. A watch supervisor concept will be used during periods of reduced airfield lighting/aircrew NVD training operations.

8.9.5. Contingency Operations. Take control tower and airfield layout into account when establishing control procedures. Host-nation control towers are often very different than the normal USAF standard and may have features that limit or prevent the use of NVDs (i.e: the quality of the glass in the control tower, ambient lighting, airfield lighting, type of ground operations being conducted, and type of communication equipment, etc.).

10.2. Front Load Training (FLT). (Does not apply to AFRC). FLT is a structured training program designed to introduce a defined amount of knowledge and/or performance training requirements at the beginning of a controller training program. FLT is required for all controllers. CCTLR's will establish time limits for all individuals in upgrade/qualification training prior and non-prior experience in a like facility. CCTLR's will also determine whether or not prior and non-prior controllers will complete FLT training in classroom or crew environment.

Block II covers facility equipment.

Block III covers general ATC practices.

Block IV covers practical application.

Common items without performance variance from position to position can be certified in the first three blocks and revalidated as part of the initial evaluation to ensure compliance with standards. The fourth block will remain open until the individual has demonstrated the ability to apply the items in a live and/or simulated environment. The objective is to send a trainee to live traffic with a good understanding of phraseology, separation, and control practices prior to working live aircraft.

10.3. OI Construction. Effective training requires the execution of a detailed training OI. An effective training OI must establish policy and procedures for implementing the specific training program and define the responsibilities of all personnel involved in the program. Each OI must expand on those areas where further explanation is required and standardize local training procedures. Each unit must develop, implement and administer each program according to this instruction, AFI 36-2201 Volume 1-6, *Air Force Training Program* and AFMAN 36-2234, *Instructional System Development.* As a minimum, address the following areas:

10.3.2. Upgrade Training. Outline program schedules, administrative actions (PC III process, etc.) and additional instructions (documentation, frequencies of evaluations, requests for certification) for skill level advancement. Additionally, CATCTs will integrate Career Field Education Training Plan (CFETP), ATC Training Series (ATCTS), computer based training presentations (CBTs), simulator programs, non-radar programs and command/local training products into certification guides to meet upgrade training requirements for 5-skill level.

10.3.5.1. Management Training. Establish procedures on how management training will be conducted, who will accomplish the training, documentation, frequency of evaluations and track the progress of each duty position. As a minimum, identify AOF/CC/DO, CCTLR, CATCT, CSE or TSN, CATCA (if applicable), TERPS, WS and trainer.

10.3.12. Training Program Review. Outline procedures to periodically review and document locally developed and required training products used in facility training. As a minimum ensure the following products are reviewed:

10.3.12.1. Master Training Record. CATCTs must maintain a master training record in each facility to ensure training records remain current according to applicable training references. The CATCT must continuously update the master training record to ensure accurate training products are available to all facilities and work centers.

10.3.12.2. Technical References. HQ AFFSA develops and maintains the Air Force Master Task and Technical Reference (MTTR) and Master Reference Index (MRI). CATCTs must incorporate local technical and task references into the AFFSA developed MTTR listing and maintain a copy for each facility. The MTTR and MRI may be maintained in the master training record or automated on the AOF Web. The CFETP/STS and AF Form 797 comprise the ATC Master Task List (MTL).

10.3.13. DELETED

10.3.14. DELETED

10.4.7. Position Certification Time Limits. CCTLRs specify position certification time limits for each position in the facility in calendar days. Time limits must be established for all individuals in upgrade/qualification training based on prior and non-prior experience in a like facility. Review PCG time limits

annually and make adjustments accordingly. Base time limits on the average time required to complete position certifications during the preceding calendar year. NOTE: CCTLR's may adjust PCG time limits more often than annually if mission requirements/changes dictate. Time adjustments should be kept to a minimum and must be based on measurable assessments of prior trainee performance. Document all time adjustments in the TRB.

10.4.8. Position Certification Guide Utilization. The CSE/TSN will test and evaluate trainees on their attainment of required knowledge and proficiency against established standards for each CFETP/AF Form 797 task item at the end of each block of instruction and completion of the PCG. An unqualified 3-level must meet the block objectives before officially entering into the next block.

10.5.2. Index and Numbering**.** Index the ATCTS publications (including MAJCOM and unit developed) by using letter and number combinations. The letters "AT" shall be used to identifying the publications as part of the ATCTS. The next letter identifies the major category: Air Traffic Control Management (M), Control Tower Operations (T), Radar and Nonradar Operations (R), General (G), Equipment (E), Combat Skills (C) and, Job Performance Aid (JPA). The number identifies a specific publication within a given category.

11.4.2.1. At locations where controllers routinely perform arrival control functions as part of an approach control function, individuals may be awarded SEI 364 as long as the following provisions are met:

11.4.2.2. Chief controllers outline the minimum standards necessary for award of the arrival control rating as part of a combined rating in the facility position certification guide and all training objectives and standards for the arrival control position are met.

11.4.2.3. Position Certification in Approach Assist. For SEI procedural guidance refer to AFMAN 36-2108, *Enlisted Classification.*

11.4.4.3.1. Apprentice controllers lose qualified apprentice controller status if they are identified as experiencing difficulty in training (EDIT), fail a position certification and/or have a position certification suspended.

11.4.4.3.2. CCTLR may reinstate status when the controller in question is removed from EDIT status, obtains position certification originally failed, and/or is recertified in the position originally suspended. NOTE: document on AF Form 623A or suitable substitute prior to the qualified apprentice controller working unmonitored.

11.4.4.4. Change to Read: The total time in stop training must not exceed 120 days from the time the trainee is qualified to work in a position unmonitored.

11.4.4.5. DELETED

11.4.4.6. DELETED

11.7.1. The following must be included in all position training evaluations (not necessarily in this order):

11.7.1.1. Name, inclusive dates of evaluation, position, position start date and total calendar days allowed for position.

11.7.1.3. Status of trainee development. Assess the trainee's progress, or lack of progress toward objectives. Include deficient areas and strength's. Identify the cause(s) of unsatisfactory progress, if applicable.

11.7.1.6. Other comments. Include all interruptions to training (stop training days, to include reason).

11.7.1.8. Identify specific action(s) to correct deficient areas or unsatisfactory progress, if applicable.

11.7.3. The trainee, trainer, WS, CATCT and CCTLR must review and sign all training evaluations. Additionally, the AOF/CC must review and sign training evaluations for trainees in EDIT status.

11.7.6. Maintain each individual position certification evaluation in AF Form 623. Maintain all position certification evaluations until the facility rating encompassing the position certification is awarded. Retain facility rating evaluation form in training record until PCS or PCA.

11.8.1. Apprentice Controller Facility Assignment. Apprentice controllers completing technical training at Keesler receive training focused toward their initial facility of assignment (tower or radar). This focus should continue for apprentice controllers at their first duty station. Units must obtain MAJCOM approval prior to assigning an apprentice controller to other than their intended initial facility of assignment. MAJCOMs must coordinate with AFFSA/XAR prior to assigning apprentice controllers to the other facility and provide a copy of approval letters to HQ AFFSA/XA and HQ AFPC/DPAAD3.

11.8.2. ATC Apprentice Controller Database (Not applicable to ANG or AFRC). The CATCT/TSN shall provide quarterly updates to apprentice controller training information (name of trainee, training start date, SEI award date) using the Microsoft Access Database provided by AFFSA. Updates to database information are due to the MAJCOM by the 5th duty day of the month following the quarter. MAJCOMs shall upload unit level input to their consolidated database and forward that information to AFFSA/XAOT by the 15th duty day of the month following the quarter. Once individuals attain an SEI, further reporting is not required.

12.2.6. CATCA. Complete the CATCA TCG within 6 months of initial assignment to the CATCA position. The same requirement applies to individuals in CATCA training.

12.3.4. Management training should be conducted by the individual currently holding the management position. Task certification should be conducted by other staff members who have completed task certifier's training and are qualified on the appropriate section of AFJQS 1C1X1-002 as CCTLR, CSE, CATCT, TSN or CATCA. When this is not possible, AFI 36-2201, Volume 3 Air Force Training Program *On The Job Training Administration* provides an exemption for air traffic control allowing individuals in one person shops, any person qualified to perform the task, who has completed certifier's training to certify management tasks. This exemption applies specifically to management qualification training where the same person may act as the trainer and the certifier when no other individual is available for certification. For example: Only one qualified chief controller exists in a facility, that person may act as a trainer and certifier. Also, AOF/CCs who have completed certifier's training should certify tasks in the applicable section of AFJQS 1C1X1-002. This can only be done when the AOF/CC is certified on the specific task or position referenced in AFJQS 1C1X1-002.

12.4. **Trainer Qualification.** Only qualified controllers holding AFSC 1C151, GS-2152 or above may train or monitor. Trainers must be certified on each task they will train others on, complete a formal OJT trainer course, recommended by the supervisor, appointed in writing by the unit commander (AOF/CC or CCTLR may appoint trainers if this responsibility has been delegated by the unit commander) and complete AT-M-01, *Trainer's Qualification Training Package*. Trainers must be position certified and/or facility rated prior to training an individual on a task. Only position certified, trainer certified individuals are allowed to monitor trainees working live traffic.

13.2.1.2. Anti-Hijack Training. Conduct semiannually. TR: FAAO 7110.65, CBT A-2 and AFI 13-207, Preventing/Resisting Aircraft Piracy (For Official Use Only).

13.2.1.5. Special Aircraft Operations by Law Enforcement Organizations. Conduct annually (if applicable). TR: FAAO 7110.65, FAAO 7110.52 and FAAO 7110.67.

13.2.1.11. Simulated Flameout Procedures (SFO). Semiannually. TR: FAAO 7110.65, CBT G-7 and LOPs (If Applicable).

13.2.1.15. Vehicle Control. Conduct Annually, TR: FAAO 7110.65, LOPs

13.2.1.16. At locations with NVD procedures, conduct recurring training semiannually for all tower controllers. TR: LOPs and AFI 13-203.

14.3. Change NOTE to Read: IAW FAR Part 65.39 an applicant for a facility rating at any air traffic control tower must have satisfactorily served as an air traffic control tower operator for at least 6 months for award of CTO certificate. However, individuals may work unmonitored in positions they are certified, under supervision of a WS/SC.

14.3.6. The trainee, trainer, WS, CCTLR, (CSE, TSN, and CTO Examiner as appropriate), CATCT, and AOF/CC must coordinate on the AF Form 623a or suitable substitute for position and facility evaluations.

14.4.1. Hazard to Flying Safety. If the suspension is due to a controller's demonstrated potential hazard to flying safety, suspend all position certifications and ratings in all facilities (if dual qualified). Annotate the controller's AF Form 3622 with an "S" and the effective date of suspension in the "Date Canceled" block next to each position certification. Within 10 workdays, re-enter the controller into training, or cancel their ratings, or cancel position certifications or initiate AFSC withdrawal. Never erase or overwrite an "S" annotated on AF Form 36 22.

14.4.2. Failure to Meet Proficiency Requirements. When a controller has not met CCTLR established position proficiency requirements, conduct a special evaluation prior to allowing them to work in position unmonitored. (NOTE: Do not annotate an "S" on AF Form 3622 for failure to meet proficiency requirements.)

14.5. **Cancellation of Position Certifications and Facility Ratings.** Cancel position certifications and facility ratings when a controller departs PCS, PCA, separates, or transfers to another DoD location, or does not re-enter into training within 10 workdays after a "Hazard to Flying Safety" suspension. The AOF/CC and CCTLR have the authority to cancel position certifications and facility ratings.

14.7. **Facility Evaluations.** (Not applicable to Moron AB). The CSE/ACSE/TSN/ATSN will conduct periodic facility evaluations, on each crew, at least every 90 days to ensure adherence to facility operating directives and standard application of procedures. As a minimum, the CSE will observe: crew application of crew resource management (CRM) principles, application of standard phraseology, crew change procedures, application of separation criteria, inter/intra facility coordination, position awareness, use of checklists and weather reporting procedures. Document the results of each evaluation and forward to the AOF/CC and CCTLR for review and/or action. Retain facility evaluations for a minimum of one year.

14.8. Annual and Controller Evaluations.

14.8.1 Annual Evaluations. The CSE, TSN, ACSE, ATSN or CTO examiner will evaluate each controller using a locally developed annual evaluation checklist within 30 days of the anniversary of the initial position certification or last annual evaluation. Conduct the evaluation during live traffic or a combination of live and simulated traffic in that facilities most complex position. CCTLRs will identify the most complex position in an LOP.

14.8.2. Controller Evaluations. A controller evaluation is conducted on a qualified controller in any position deemed necessary when judgment, actual proficiency levels (based on the established PCG standards), or questionable practices warrant further evaluation. The AOF/CC, CCTLR, TSN, CSE, or CTO examiner has the authority to direct a qualified controller be evaluated. The CSE, TSN, ATSN, ACSE, CTO examiner will conduct the controller evaluation during live traffic or a combination of live and simulated traffic.

14.8.3. Annual/Controller Evaluation actions.

14.8.3.1. Annual/Controller evaluation (Pass)

14.8.3.1.1. Document evaluation on AF Form 623a or suitable substitute and retain in the individual's training record until the next annual evaluation is accomplished.

14.8.3.1.2. Document results of the evaluation on AF Form 3616.

14.8.3.2. Annual/Controller Evaluation (Fail)

14.8.3.2.1. Controllers who fail an annual/controller evaluation will have their facility ratings and position certifications for all facilities suspended until recertified.

14.8.3.2.2. Decertify deficient task items in CFETP/STS.

14.8.3.2.3. Document evaluation on AF Form 623a or suitable substitute.

14.8.3.2.4. Refer the individual to the CCTLR to determine whether to reenter the controller into facility training or initiate action to withdraw the individual from the career field.

14.8.4. The CCTLR, CATCT, CSE, TSN, CTO Examiner and AOF/CC shall coordinate on the Annual/Controller evaluation AF Form 623a or suitable substitute.

15.1.4. Airfield Operations Officers holding the 13M1 AFSC, who fail to complete training for upgrade to 13M3 within established time limits IAW AFI 13-204, are eliminated from training IAW AFI 36-2101.

15.2.6. ATCS Certificate Withdrawal under the category: "Other" (**Attachment 9**). Determination that a condition exists which could affect flying safety and ATCS certificate withdrawal is necessary.

15.3.1. For withdrawals based on medical disqualification, flight surgeon and clinical representatives process packages directly with the MAJCOM Surgeon General. Units shall notify MAJCOM OPR for ATC of any pending withdrawal actions (for all categories) and whether or not the withdrawal action should be for cause. When the basis for withdrawing the AFSC is for conditions or actions over which the airman had control, withdrawal action will be qualified as "for cause." Examples of "for cause" include loss of security clearance due to misconduct, drug abuse, alcohol involvement, failure to progress in training (for reasons within their control), and substandard duty performance or other acts that lead to AFSC withdrawal forward medical withdrawals according to AFI 36-2101, Classifying Military Personne l.

Attachment 1

References

UFC 3-260-01 Unified Facilities Criteria (UFC) Airport and Heliport Planning and Design

AFI 32-1026, Planning and Design of Airfields: Deleted

Terms

Proficiency - In order to be proficient, a controller must perform air traffic control duties under normal workload conditions in each operating position they are certified in within the last month.

ATC Duty - ATC duty refers to controlling live or simulated traffic, monitoring a trainee controlling live or simulated traffic, and conducting duties as a watch supervisor.

Controlled Movement Area Violation - An airfield infraction caused by aircraft, vehicles, or pedestrians entering the controlled movement area without specific control tower approval. This definition includes runway intrusions and infractions caused by communication errors.

Runway Intrusion - A Controlled Movement Area violation that is the result of an unauthorized entry or erroneous occupation of a runway or other surface used for takeoff and landing of aircraft regardless of impact on aircraft safety. These incidents can be caused by aircraft, vehicles, pedestrians, or communication errors.

Attachment 11

IC 2004-1 to AFI 13-203, AIR TRAFFIC CONTROL

26 FEBRUARY 2004

SUMMARY OF REVISIONS

This revision incorporates Interim Change IC 2004-1. IC 04-1 major changes include: **Chapter 1**: contract ATC locations. **Chapter 2**: moved ATCSE to non-UMD position, added 13Ms to watch supervisor criteria, updated CATCA/ATCSS responsibilities. **Chapter 3**: added flight progress strips to forms, changed reference from tapes/disks to computer data recordings, added GPS approaches to ATARS tracking. **Chapter 4**: altered operating hours guidance to match AFI 13-204, added wake turbulence separation reminder, clarified QUICK LOOK and automatic release guidance. **Chapter 5**: enhanced automation guidance to include production of radar maps and MSAW, changed facility clock and rotating beacon procedures. **Chapter 6**: added aircraft arresting system notification requirements. **Chapter 7**: added to radar performance check guidance. **Chapter 8**: clarified NVD guidance. **Chapter 10**: Added guidance on stop training. **Chapter 11**: Deleted qualified apprentice controller paragraphs, clarified 7-level upgrade training and training evaluations. **Chapter 12**: Updated task certifier guidance. **Chapter 13**: new guidance on apprentice controller proficiency testing. **Chapter 14**: provided more detail on facility evaluations. **Chapter 16**: Added SIGNAL to ATC simulation guidance, expanded guidance on static scenarios and simulation administrator responsibilities. **Chapter 17**: documentation guidance. **Attachment 1**: Added definitions of stop training and simulation scenarios, deleted qualified apprentice controller. **Attachment 5** – **Attachment 9**: minor changes to withdrawal requirements. Minor changes were made throughout and include correcting spelling, reference updates and editing errors. A bar (|) indicates revision from the previous edition.

OPR: AFFSA/XAO (Lt Col Timothy J. Arch)

This instruction implements AFPD 13-2, Air Traffic Control, Airspace, and Airfield and Range Management. It directs the management of US Air Force, AFRC and ANG air traffic systems, personnel and facilities. It directs the administration of facilities, the use of equipment, the operation of control towers and air traffic control (ATC) radar facilities and the training of USAF air traffic controllers. HQ Air Force Flight Standards Agency, Director of Airfield Operations (AFFSA/XA) must approve all supplements and interim changes to previously approved supplements to this directive prior to implementation. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in the instruction in Title 10, United States Code, Section 8014. Privacy Act system of records notice F036 AFFSA A applies. **Attachment 1** lists References and Supporting Information used in this instruction.

1.3.1.1. Completion of Blocks 1-6 is mandatory for unit level submissions. Wing Commander or Operations Group Commander comments in Block 6 are optional, however the remainder of block 6 is required.

1.11. Contract Locations. This AFI applies to contract locations as specifically outlined in the contract Statement of Work.

2.2.1.1.1. When reduced facility staffing warrants and no other qualified 1C1 personnel are available, MAJCOMs may approve temporary appointments of otherwise qualified GS-2152s to CATCT positions for a period not to exceed 120 days in duration. MAJCOM approved appointments will be forwarded to HQ AFFSA/XA. NOTE: Ensure Personnel Action (SF 52) is submitted to servicing civilian personnel office prior to start date of temporary appointment.

2.1.3.1.1. Establish a program to ensure controllers maintain proficiency in all positions in which they are certified. When positions are combined, proficiency time may count for each position provided the controller performs ATC duties associated with each position under normal workload conditions. Publish program requirements in an LOP. This program must include:

2.1.3.1.1.1. Minimum monthly position time requirements and a means of tracking position time. Outline any additional actions to be taken, beyond those required in **Chapter 14** when a controller fails to meet requirements.

2.1.3.1.1.2. Use the definition of proficiency in **Attachment 1** to clearly define traffic conditions that must exist in order to count proficiency time.

2.1.3.1.1.3. CCTLR's may authorize use of simulation scenarios as an aid in maintaining controller proficiency. Use of simulation for proficiency shall not exceed 50 % of the minimum proficiency time requirement. Design scenarios IAW **Chapter 16**.

2.2.2.15. Develop and manage the unit ATC simulation resources. Coordinate simulation administrator activities with respective CCTLR(s) or CATCA.

2.2.2.18. Assist the ATCSE Administrator with developing a simulation equipment continuity folder that is available to all users.

2.2.2.18.1. DELETED

2.2.2.18.2. DELETED

2.2.2.18.3. DELETED

2.2.2.18.4. DELETED

2.2.2.18.5. DELETED

2.2.2.18.6. DELETED

2.2.2.18.7. DELETED

2.2.2.18.8. DELETED

2.5.1.1. Must hold AFSC 13M, 1C100, 1C191, 1C171 or GS-2152, have performed ATC duties for at least 3 years (not including instructor duty or staff duty), and have one year's experience in type facility to supervise, excluding RFC. (RAPCON satisfies the GCA experience requirement).

2.6.1.1. Must hold PAFSC 1C171, 1C191 or GS-2152 with automation equivalency, performed ATC automation duties for at least 3 years, and have one year experience in type of automation work center to manage.

2.6.1.3. Must complete the ATCSS formal courses for the system supported at the site. Completion of this course and experience requirements are outlined in AFMAN 36-2108 for award of the Special Experience Identifier (SEI).

2.6.1.4. Upon completion of local ATCSS qualification training should retain this duty for a minimum of 3 years. This will ensure effective management of formal school training allocations and continuity of the automation function at the unit level.

2.6.2.1.1. Ensure an adequate number of ATCSSs are scheduled to support mission requirements. Notify the CCTLR and Watch Supervisor if ATCSS support is unavailable.

2.6.2.1.2. CATCA will define CDR procedures in an LOP, to include procedures on reviewing CDR media.

2.6.2.2.3. When system deficiencies are recognized, direct actions to ensure the adequacy of failure recovery and de-bugging procedures. Coordinate software problems with the ATC staff, CATCAs at other sites, MAJCOM, AFFSA, the appropriate FAA/DoD support personnel. Document and submit the appropriate automated system enhancement/ deficiency reports as required.

2.6.2.2.5. Responsible for the automated ATC system administration, continuous data recording (CDR), playback systems and the implementation and maintenance of low altitude alerting systems. Coordinate with TERPS to obtain current MAJCOM-approved MVA map data for inclusion in DTAS database. Provide TERPS with all changes to the General Terrain Map (GTM).

2.6.2.4. DELETED

2.7.1.1. Must hold PAFSC 1C171, 1C151, or GS-2152 with automation equivalency and have performed air traffic control duties for at least 3 years (not including instructor duty).

2.7.1.3. Must complete the ATCSS formal courses for the system supported at the site. Completion of this course and experience requirements are outlined in AFMAN 36-2108 for award of the Special Experience Identifier (SEI).

2.7.1.5. Upon completion of local ATCSS qualification training, should retain this duty for a minimum of 3 years. This will ensure effective management of formal school training allocations and continuity of the automation function at the unit level.

2.7.2.5. Stores, controls, and safeguards automated systems operational computer software programs in accordance with LOP. Maintains the CDR storage library and administers CDR media changes as required.

2.7.2.7. Trains and/or briefs users on the operational use of supported computer systems as required.

2.8.5. Air Traffic Control Simulation Equipment (ATCSE) Administrator.

2.8.5.1. CCTLRs must appoint individuals to serve as simulation equipment system administrator and assistants. When an automation work center exists at unit level, the CATCA and ATCSS personnel fill the responsibilities of administrator and assistants.

2.8.5.2. Courses for simulation systems evolve as new delivery capabilities are created. Contact MAJCOM Airfield Operations staff for current requirements.

2.8.5.3. Simulation administrators shall develop and maintain a simulation equipment continuity folder that is available to all users. Include the following minimum items:

2.8.5.3.1. Complete list of all simulation training scenarios. Include a description (objective) of each scenario.

2.8.5.3.2. Current copy of the ATCSE user's manual.

2.8.5.3.3. Worksheet or log to track hardware/software malfunctions.

2.8.5.3.4. Description of terminal labeling system.

2.8.5.3.5. All coordination documentation pertinent to the simulation system (i.e., emails, memorandums)

2.8.5.3.6. Appointment letters and duty description for assistants.

2.8.5.3.7. Other information pertinent to the simulation system.

2.8.5.3.8. The primary administrator will establish responsibilities for administrator assistants.

3.1. ATC Forms. Unless otherwise indicated, maintain all forms as official facility records according to AFI 37-138, Records Disposition--Procedures and Responsibilities, or as directed below. Publish proper documentation and management of forms in the appropriate LOP.

3.1.2. Flight Progress Strips. Any FAA approved form, as determined by the type of printing system, may be used. Destroy after 6 months.

3.2.2. At facilities where the ATC automation system has the ability to record operations on the system, retain CDR media for a minimum of 15 days.

3.2.3. Protect CDR media, CDR hard-copy printouts and all other recorded records of aircraft mishaps, alleged deviations or hazardous air traffic reports (HATR) to the degree necessary to prevent unauthorized access. Locked receptacles (file cabinets, desks or safes) are adequate for storing this material. Requirements for protecting recorded information related to an aircraft mishap/incident are outlined in AFI 13-204, Functional Management of Airfield Operations.

3.3.4.1. Current on-base crash grid maps (off-base, when available).

3.3.4.5. Photographs of Certified Tower Radar Display (CTRD) adjusted to standard presentation as defined by the facility CCTLR with correct video map alignment. Note: While Digital Terminal Automation Systems (DTAS) perform map alignment automatically, photographs are still required to validate CCTLR standard display presentation requirements.

3.3.5.3. Photographs of radar displays adjusted to standard presentation by operating position as defined by the facility CCTLR, showing correct video map alignment. Note: While Digital Terminal Automation Systems perform map alignment automatically, photographs are still required to validate CCTLR standard display presentation requirements.

3.3.5.4. A minimum IFR altitude chart (not required for GCA/RFC facilities) developed IAW AFI 11-230, Instrument Procedures.

3.5.1.1. Units: Input traffic count data into the Air Traffic Activity Reporting System (ATARS). Complete monthly data input NLT the third duty day of the following month. Data is automatically transmitted to HQ AFFSA on a monthly basis via File Transfer Protocol (FTP) internet connection.

3.5.1.2. MAJCOMs: Validate unit air traffic activity reporting.

4.1.1.3. DELETED

4.1.2. Extending/Curtailing Operating Hours. See AFI 13-204, Functional Management of Airfield Operations.

4.6.4. Unless safety of flight or necessity for the control of air traffic dictates otherwise, controllers should avoid transmitting to aircraft in the following critical phases of flight: short final, touchdown, landing roll, departure roll, initial climbout.

4.9.1.2. Wake Turbulence Separation. When mixing aircraft operating in the VFR traffic pattern with IFR/VFR arrivals, tower controllers must ensure appropriate wake turbulence separation exists, or will exist, before turning an aircraft inside the IFR/VFR aircraft on final. Outline these procedures in an LOP.

4.9.4.1. QUICK LOOK coordination, without some means of ensuring tower actively acknowledges inbound aircraft, is not recommended at locations with high density traffic and/or diverse or unpredictable arrival patterns. Determination of whether or not quick look is operationally beneficial is best decided at the unit level. USAF VFR towers who receive approach control service from FAA facilities and use automation for transferring control of aircraft, will not enter into any agreement unless the agreement stipulates an alternate means of transferring control of aircraft (i.e. steadying the flash on an automated handoff or verbal acknowledgement via landline) to use when the CTRD is not operational or when applying the provisions of para. **4.9.4.2.5.** Examples of active acceptance include steadying the flash on an automated handoff or verbal acknowledgement via landline.

4.9.6. Cancel automatic releases when the official weather for the airport is reported as less than 1000/3, including when Tower visibility is less than 3. Include these procedures in an LOP.

5.1.1 CCTLR will publish procedures and develop a detailed checklist in an LOP to ensure proper operations of all equipment, to include actions after a power failure and generator changeover. The CATCA will assist the CCTLR by defining procedures for periodic checks and monitoring of all automated equipment for use by the controller workforce.

5.1.1.1. CATCA will publish procedures and develop a detailed checklist in an LOP to ensure proper operations of DTAS and all locally defined systems, to include procedures for periodic checks, system monitoring, and actions after a power failure and generator changeover.

5.1.1.2. The watch supervisor/senior controller opening the facility must complete all equipment checks prior to officially opening the airfield. Additionally, each on-coming watch supervisor must initiate the checklist at the beginning of each shift and complete the checklist as soon as possible.

5.2. Facility Clocks. A reliable clock showing hours, minutes and seconds must be visible from each control position. Facilities without a direct coded time source must obtain a time check at the beginning of each shift. Acquire time checks from IFR facilities equipped with a coded time source, the US Naval Observatory (DSN 762-1401), radar facility that provides approach service, host nation ARTCC/area control center responsible for the terminal area, or a GPS source. Set clocks to within 15 seconds of time source. Check clocks immediately after the facility goes on backup power and again 30 minutes after. If found to be inaccurate, check clocks hourly until restoring normal power. **NOTE:** Wind sensor equipment that provides a reliable clock must be checked at the beginning of each shift unless connected to a direct coded time source.

5.5. Primary Crash Alarm System (PCAS). Define procedures and conditions for activation in the base airfield operations instruction. Limit agencies with two-way telephones to the control tower, base operations, fire department, and the medical center. Additional agencies may have receive-only capability. The tower PCAS must have a visual system indicating when each two-way party on the PCAS picks up the handset. During real-world emergencies, trainees may only activate the PCAS if the trainer/monitor has the capability to monitor and transmit over the PCAS.

5.6. Land Mobile Radios (LMR). Each LMR system supporting ATC and aerodrome operations must terminate in the control tower console if enough transmitter and receiver selection switches and speakers are available.

5.6.1. Each LMR terminating in the control tower must have a selective call feature (electronic, mechanical, or procedural) that enables the tower to mute the radio and eliminate unnecessary transmissions. LMRs tuned to a frequency dedicated to ATC use are exempt from this requirement.

5.6.2. Control towers with digital land mobile radios will establish an LMR net (a.k.a. FM net, talk group, etc) dedicated for use between vehicle operators and ATC, solely for the purpose of operating on the runway and controlled movement area.

5.7.3. Rotating Beacon. Follow FAAO 7110.65 rules for operating the rotating beacon during facility operating hours. However, if the tower does not operate 24-hours a day, ensure the airport rotating beacon is turned off when the facility closes.

5.10.2. The FAA is the authoritative source for the software maintenance of the ATC systems they support (i.e., Micro-EARTS, STARS, ETVS, DVRS, etc.). System Technical Instructions are directive in nature. Prior to operational use of a new program update, accomplish the applicable test plan, indicating the date and individuals performing the tests.

5.10.4. Immediately withdraw from service any ATC computer resource suspected of malfunctioning due to tampering, abuse or introduction of unauthorized programs (i.e., software viruses, etc.). Physically disconnect all interface connections to other computer systems and maintain the suspect computer or software for analysis. Notify the FAA/DoD support personnel and AOF/CC for submittal to MAJCOM ATCALS OPR.

5.10.5. Digital Terminal Automation Systems (DTAS).

5.10.5.1.2. Verify the operational status of all DTAS sub-systems daily.

5.10.5.4.1. CATCAs shall review all applicable documentation issued by the FAA/DoD support facility pertaining to changes in their automated system and database to determine any operational or procedural impact. The CATCA will notify facility CCTLRs and Chief of Maintenance of any changes that impact operations or procedures.

5.10.5.4.2. The CATCA will ensure, as a minimum, the 3 latest builds of software and associated documentation, to include adaptation, are available.

5.10.5.6.4. Utilize the most current MSAW Database.

5.10.5.6.5.1. The magnetic variation of radar video maps/geo maps, MSAW, DTM's, and radar site settings coincide. Verify magnetic variation annually. Whenever a change of 2 degrees or more occurs, recompile the effected maps. **NOTE:** The video map is the primary reference for maintaining radar antenna alignment.

5.10.5.6.5.2. DELETED

5.10.6. Programmable Indicator Data Processor (PIDP). Units using PIDP shall comply with the following procedures:

5.10.6.1. CCTLR shall establish procedures to check PIDP Minimum Safe Altitude Warning (MSAW) alarms. Checks shall be accomplished at the beginning of each watch and documented in the Facility Events Log.

5.10.6.2. Except for emergency requirements, submit any needed changes in site-unique PIDP or MSAW data at least 120 days in advance. Submit changes to MAJCOM for review and forwarding to HQ ESC OL-D/E/TG/3S, Tinker AFB, OK. Each PIDP equipped unit will maintain the following site-unique data, as appropriate:

5.10.6.2.1. AF Form 3645, PIDP Submission Form.

5.10.6.2.2. Current 15 and 60 nautical mile (NM) MSAW charts and data.

5.10.6.2.3. Reflection discrimination data, if used.

5.10.6.2.4. Low Altitude Alerting System (LAAS) data products for TPX-42/980B.

5.10.6.2.5. LAAS data products for TPX-42-only versions of digital bright indicator tower equipment (DBRITE).

5.11.3. DTAS Maps

5.11.3.1. The TERPS specialist will design facility maps IAW AFI 13-215. The designated CATCA will coordinate with HQ ESC OL-DE/GA, Tinker AFB to create the facility maps, then upload, and maintain facility maps IAW CCTLR. The TERPS specialist will ensure locally generated MVA maps are verified against the current MAJCOM approved MVA chart before operational installation in the facility. Obtain CCTLR approval prior to installation of new maps. Keep a copy of the map data print out sheet signed by the CCTLR on file.

5.11.3.2. CCTLRs shall specify in an LOP procedures for using optional maps.

5.11.4.2. The designated TERPS specialist will create, upload, and maintain facility maps in accordance with AFMAN 13-215. Ensure locally generated MVA maps are verified against the current MAJCOM approved MVA chart before operational installation in the facility. Obtain CCTLR approval prior to installation of new maps. Keep a copy of the map data print out sheet signed by the CCTLR on file.

5.18. Certified Tower Radar Display (CTRD). DBRITE and Tower Display Workstation (TDW) radar displays in USAF control towers are certified radar displays. Radar displays must be certified for use by maintenance personnel according to AF and FAA guidance.

6.5. Functional Use of Certified Tower Radar Display (CTRD). CTRD's may be used by local controllers for the following functions:

6.9.1. DELETED

6.12. Aircraft Arresting System Maintenance/Reconfiguration Notification. Notify airfield management before releasing arresting systems to barrier maintenance for maintenance or configuration changes.

7.10. Radar Performance Checks. Each radar controller is responsible for determining, on a continuous basis, if the quality of their radar display and video fix accuracy is satisfactory for ATC purposes. Radar quality and performance are determined by comparing identified targets against data obtained during the commissioning flight check or by using minimum performance criteria determined jointly by maintenance and the CCTLR. Radar controllers must be familiar with commissioning flight check and minimum performance data, which can be obtained from the most recent ATCALS Evaluation Report or Flight Inspection Report. Chief controllers will make this information readily available to the controllers. Targets used for comparison checks should be generated by small aircraft, similar in size to those used during the commissioning flight check.

8.9.4.3. DELETED

8.9.5. Contingency Operations. Take control tower and airfield layout into account when establishing control procedures. Host-nation control towers are often very different than the normal USAF standard and may have features that limit or prevent the use of NVDs (i.e., the quality of the glass in the control tower, ambient lighting, type of ground operations being conducted, and type of communications equipment, etc). During contingency operations, the designated operations group commander has waiver approval authority IAW paragraph **1.2.4.**

10.2. Front Load Training (FLT). (Does not apply to AFRC). FLT is a structured training program designed to introduce a defined amount of knowledge and/or performance training requirements at the beginning of a controller training program. FLT is required for all controllers. CCTLR's will establish time limits for all individuals in upgrade/qualification training, prior and non-prior experience, in a like facility. CCTLR's will also determine whether or not prior and non-prior controllers will complete the FLT training tasks in a classroom or crew environment.

10.2.1. Block I covers Local Area

10.2.2. Block II covers facility equipment.

10.2.3. Block III covers general ATC practices.

10.2.4. Block IV covers practical application.

10.2.5. Common items without performance variance from position to position can be certified in the first three blocks and revalidated as part of the initial evaluation to ensure compliance with standards. The fourth block will remain open until the individual has demonstrated the ability to apply the items in a live and/or simulated environment. The objective is to send a trainee to live traffic with a good understanding of phraseology, separation, and control practices prior to working live aircraft.

10.3.5.1. Management Training. Establish procedures on how management training will be conducted, who will accomplish the training, documentation, frequency of evaluations and track the progress of each duty position. As a minimum, identify AOF/CC/DO, CCTLR, CATCT, CSE or TSN, CATCA and ATCSS, TERPS, WS and Trainer.

10.3.12.2. Technical References (TR). HQ AFFSA develops, maintains and publishes the Air Force Master Task and Technical Reference (MTTR) and Master Reference Index (MRI). CATCT should review the current MTTR for changes and review all TRs for applicability to their facility. CATCTs must incorporate local technical and task references into the AFFSA developed MTTR listing and maintain a copy for each facility. The MTTR and MRI may be maintained in the master training record or automated on the AOF Web. The CFETP/STS and AF Form 797 comprise the ATC Master Task List (MTL).

10.3.15. Stop Training. Identify circumstances in which the CCTLR will authorize Stop Training time and outline documentation procedures. The facility CCTLR should only consider the use of stop when further training is not possible or is detrimental to the mission. The facility CCTLR will determine the need for placing an individual in stop training.

10.4.4. DELETED

10.4.6.1. All CFETP, and AF Form 797 knowledge/task requirements with applicable TRs that require training. Training references must coincide with those listed in the MTTR and should address the specific paragraph for each task item. **NOTE:** a reference to MTTR line number fulfills this requirement.

11.2. Initial Training Evaluation. Supervisors must officially enter all personnel into training and ensure an initial evaluation is conducted on all newly assigned personnel. An initial evaluation is subsequently required at the beginning of each position of training, to identify tasks the trainee can already perform based upon knowledge gained in their previous certification. As a minimum, the first initial evaluation will include a review of the following, Part I of the CFETP, Master Training Record, Contingency and Wartime Training, and Supervisor and trainee responsibilities as outlined in local and AF governing directives. Document completion of all initial evaluations on the AF Form 623a or a suitable substitute.

11.4.4. DELETED

11.4.4.1. DELETED

11.4.4.2. DELETED

11.4.4.3. DELETED

11.4.4.3.1. DELETED

11.4.4.3.2. DELETED

11.4.4.4. DELETED

11.6. Seven-Skill Level Upgrade Training. Journeyman personnel must be a staff sergeant; complete 12 months upgrade training time and complete Computer-Based Instruction (CBI) course E6ACS1C171-000, Air Traffic Control Craftsman Course (training may begin on the first day of the promotion cycle) in order to become a craftsman. NOTE: Individuals in retraining status Code "G" are subject to the same requirements and must complete a minimum 6 months in upgrade training.

11.7. Training Evaluations. Trainers must accomplish training evaluations to document trainee progression towards tasks and objectives. Accomplish evaluations on trainees in position qualification and upgrade training, as a minimum, every 14 calendar days. Evaluations on other qualification/ management training (7-level and management positions) will be conducted once monthly, as a minimum. Evaluations must be submitted prior to the 5th calendar day of each month.

12.2. Management Training Guides. Units must use published Air Force Task Certification Guides (TCG) and Qualification Training Packages (QTP). Units may supplement Air Force TCGs and QTPs with MAJCOM and local requirements. CATCT's shall ensure a local Watch Supervisor , Trainer, CATCA and ATCSS Task Certification Guide is developed. The CATCT should work closely with the CCTLR and CATCA to ensure all required tasks, objective statements, and training references are included.

12.2.1. 13M1 Officers. Complete AT-M-11, Air Traffic Control Officer Guide, within 6 months of arrival at the first duty station. Complete AT-M-10, Airfield Management Training Guide, within 1 year after completion of AT-M-11. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.2. CCTLR. Complete the CCTLR portion of the AFJQS 1C1X1-002 and AT-M-05, CCTLR Task Certification Guide, within 6 months of initial assignment to the CCTLR position. The same requirement applies to individuals in CCTLR training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.3. CATCT. Complete the CATCT portion of the AFJQS 1C1X1-002 and the CATCT portion of AT-M-04, TSN Task Certification Guide, within 6 months of initial assignment to the CATCT position.

The same requirement applies to individuals in CATCT training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.4. CSE. Complete the CSE portion of the AFJQS 1C1X1-002 and the CSE portion of AT-M-04, TSN Task Certification Guide, within 6 months of initial assignment to the CSE position. The same requirement applies to individuals in CSE training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.5. TSN. Complete the CSE and CATCT portions of the AFJQS 1C1X1-002 and the CSE and CATCT portions of AT-M-04, TSN Task Certification Guide, within 9 months of initial assignment to the TSN position. The same requirement applies to individuals in TSN training. Document completion on the inside cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.2.6. CATCA. Complete the locally developed CATCA TCG within 6 months of initial assignment to the CATCA position. The same requirement applies to individuals in CATCA training.

12.3.3. When management qualifications training and requirements have been accomplished, document the completion on the inside front cover of AF Form 623, ECI/CDC PARTICIPATION, ETC. Section.

12.3.4. Management training should be conducted by the individual currently holding the management position. Task certification should be conducted by other staff members who have completed task certifier's training and are qualified on the appropriate section of AFJQS 1C1X1-002 as CCTLR, CSE, CATCT, or TSN. CATCA's task certification is completed by individuals signed off on locally developed AF Form 797's. When this is not possible, AFI 36-2201, Volume 3 Air Force Training Program On The Job Training Administration provides an exemption for air traffic control allowing individuals in one person shops, any person qualified to perform the task, who has completed certifier's training to certify management tasks. This exemption applies specifically to management qualification training where the same person may act as the trainer and the certifier when no other individual is available for certification. For example : Only one qualified chief controller exists in a facility, that person may act as a trainer and certifier. Also, AOF/CCs who have completed certifier's training should certify tasks in the applicable section of AFJQS 1C1X1-002. This can only be done when the AOF/CC is certified on the specific task or position referenced in AFJQS 1C1X1-002.

12.4. Trainer Qualification. Only position certified, trainer certified individuals are allowed to monitor trainees working live traffic. Qualifications for selection as ATC Trainer to train or monitor:

12.4.1. Must hold PAFSC 1C151 and above, GS-2152, or 13M. Controllers holding AFSC 1C131 may train or monitor 60 days after award of facility rating SEI.

12.4.2. Trainers must be position certified and/or facility rated prior to training an individual on a task.

12.4.3. Attend the Air Force Trainers Course.

12.4.4. Complete AT-M-01, Trainer's Qualification Training Package and local Trainer TCG.

12.4.5. Must be recommended by the supervisor, appointed in writing by the unit commander. (AOF/CC or CCTLR may appoint trainers if this responsibility has been delegated by the unit commander)

12.4.6. CCTLR’s and CATCT’s are authorized to document trainer certification on AF Form 3622, Air Traffic Control/Weather Certification and Rating Record.

12.5. Task Certifier Qualification. Must be appointed in writing by the unit commander (AOF/CC or CCTLR may appoint Task Certifiers if this responsibility has been delegated by the unit commander).

Qualifications and responsibilities are outlined in AFI 36-2201 Volume 3, *On The Job Training Administration*. **NOTE:** ATC Trainer qualified personnel are authorized to certify tasks in the CFETP.

13.2.1.1. Electromagnetic Interference (EMI). Conduct annually. TR: AFI 10-707, Spectrum Interference Resolution Program and Flight Information Publication (FLIP) General Planning Guide, FAAO 7110.65, CBT-R-10.

13.2.1.3. Aircraft Characteristics and Performance. Conduct annually. TR: FAAO 7110.65, CBT A-1. At locations where exercises and aircraft deployments occur, ensure controllers are trained on aircraft characteristics prior to exercise/deployment date. Review annually and make adjustments as required.

13.6.4. Apprentice controllers in FLT blocks 1-3 may be administered the proficiency test open book.

13.6.3. Individuals scoring below 80 percent on the retest will be referred to the CCTLR for evaluation and training recommendations. Document recommendations and corrective actions on AF Form 623a.

14.4.2. Failure to Meet Proficiency Requirements. When a controller has not met CCTLR established position proficiency requirements suspend certifications or facility ratings. ***NOTE:*** Do not annotate an S on AF Form 3622 for failure to meet proficiency requirements.

14.7. Facility Evaluations. (Not applicable to Moron AB). The CSE/ACSE/TSN/ATSN will conduct periodic facility evaluations, on each crew, at least every 90 days to ensure adherence to facility operating directives and standard application of procedures.

14.7.1. As a minimum, the CSE will observe:

14.7.1.1. Crew application of crew resource management (CRM) principles:

14.7.1.1.1. Situational Awareness.

14.7.1.1.2. Effective communications.

14.7.1.1.3. Risk management.

14.7.1.1.4. Workload management.

14.7.1.1.5. Group dynamics.

14.7.1.1.6. Stress awareness and management.

14.7.1.2. Application of standard phraseology.

14.7.1.3. Application of separation criteria.

14.7.1.4. Inter/intra facility coordination.

14.7.1.5. Position awareness. Performing position responsibilities as defined by FAAO 7110.65 and local LOP's.

14.7.1.6. Weather reporting procedures.

14.7.1.7. Crew change procedures.

14.7.1.8. Use of checklists.

14.7.2. The CSE/TSN will develop a local checklist for conducting facility evaluations, as a minimum the checklists shall contain the required items outlined in paragraph **14.7.1.** - 14.1.8.

14.7.3. Document the results of each evaluation and forward to the AOF/CC and CCTLR for review and/or action. Retain facility evaluations for a minimum of one year.

14.7.4. For facilities without established crews, the CSE/TSN shall conduct 3 random evaluations at-least every 90 days.

15.3.1. Units shall notify MAJCOM OPR for ATC of any pending withdrawal actions for all categories including administrative and whether or not the withdrawal action should be for cause.

15.3.1.1. For withdrawals based on medical disqualification, flight surgeon and clinical representatives process packages directly with the MAJCOM Surgeon General. Forward medical withdrawals according to AFI 36-2101, *Classifying Military Personnel*.

15.3.1.2. When the basis for withdrawing the AFSC is for conditions or actions over which the airman had control, withdrawal action will be qualified as for "Cause". Examples of for "Cause", include loss of security clearance due to misconduct, drug abuse, alcohol involvement, failure to progress in training (for reasons within their control), and substandard duty performance or other acts that lead to AFSC withdrawal.

16.1. AOF Web Program. The AOF web program uses Internet browser technology to allow users "point and click" access to air traffic control instructions and training documentation. HQ AFFSA/XA publishes the program using distribution X. HQ AFFSA/XA will distribute two copies of the AOF Web program to each base through Distribution X. One copy each for airfield management and ATC. Units may obtain additional copies through their MAJCOM training staff if needed. Units should make every attempt to load the AOF Web Program on a local area network (LAN) and obtain administrator rights/privileges for CATCT/TSN and assistants in order to provide controllers/base operations specialists with updated and current information.

16.2. **ATC Simulation Equipment (ATCSE).** Administration level access to simulation systems will be limited to the authorized system administrator and designated assistants. Only authorized software may be loaded on ATCSE, as applicable.

16.2.1. Units that run the SIGNAL simulation program, may load additional software on the computers utilizing SIGNAL, with the approval of the Designated Approval Authority (DAA), in coordination with the Network Control Center (NCC).

16.2.2. Technical Support. For Air Traffic Control Training Device (ATCTD) and Simulation and Integration of Ground, Network and Air Links (SIGNAL) Software technical support, contact HQ Electronic Security Command OL-D/E, Tinker AFB, OK at DSN 884-7004. For other simulation systems, contact the appropriate technical support center as identified in applicable support agreements. For issues other than technical support, contact your MAJCOM ATC OPR.

16.2.3. CATCT or assistants are responsible for the following:

16.2.3.1. Programming scenarios and incorporating training materials.

16.2.3.2. Creating an outage log to track and describe system/workstation malfunctions.

16.2.3.3. Providing training, as needed, to run stand-alone or network scenarios.

16.2.3.4. Providing a print out of the basic keyboard commands as listed in the appropriate materials and maintain a readily available copy of the most current manuals).

16.2.4. Delete

16.2.5. Delete

16.2.6. Delete

16.2.7. Delete

16.3. **Simulation Scenarios.** CATCTs will develop, administer and maintain simulation scenarios that provide training in basic ATC fundamentals. Incorporate scenarios into the appropriate PCG and ensure a sufficient number of realistic scenarios meet or exceed normal traffic levels and complexity. At locations where simulation equipment is not installed, CATCTs will develop and incorporate static board scenarios into the appropriate PCG's. Stress areas or tasks controllers are not routinely required to perform. Ensure development of position scenarios to measure standards during the initial evaluation.

16.3.1 As a minimum, design scenarios to prepare trainees to work effectively in a live environment and:

16.3.1.1. Measure minimum standards during initial evaluations.

16.3.1.2. Train apprentice controllers on basic ATC fundamentals and local airspace/procedural requirements.

16.3.1.3. Train prior rated controllers on local airspace and procedural requirements.

16.3.1.4. Train controllers on nonradar procedures, with emphasis on procedures applicable to your unit.

16.3.1.5. If authorized by the CCTLR proficiency program, design scenarios to provide monthly proficiency to controllers who did not receive of maximum proficiency period as required.

16.3.1.6. Design scenarios to prepare trainees to work effectively in a live environment and design scenarios to supplement live traffic for position/facility certifications.

16.3.2. Simulation scenarios may be used to supplement evaluation procedures in order to evaluate skills not observed during live traffic.

16.3.3. Controllers shall not control live traffic until completing a comprehensive simulator-training program for the position in which training is being accomplished. CCTLRs approve any exceptions and document on AF Form 623a or suitable substitute.

16.3.4. If applicable, and required by the CCTLR, retain computer-generated scenario performance archives of all controllers in position qualification training until they progress to the next block of training. This may be accomplished electronically or through printed-paper copies.

16.3.5. If authorized by the CCTLR proficiency program, design scenarios to provide monthly proficiency to controllers who did not receive maximum proficiency traffic during their proficiency period as required. This is intended to be in addition to, not a substitute for, live traffic proficiency requirements.

16.3.6. Design scenarios to prepare trainees to work effectively in a live environment and design scenarios to supplement live traffic for position/facility certifications.

16.3.7. If applicable, and required by the CCTLR, retain computer-generated scenario performance archives of all controllers in position qualification training until they progress to the next block of training. This may be accomplished electronically or through printed-paper copies.

16.3.8. Controllers shall not control live traffic until completing a comprehensive simulator-training program for the position in which training is being accomplished. CCTLRs approve any exceptions and document on AF Form 623a or suitable substitute.

16.3.9. Simulation scenarios may be used to supplement evaluation procedures in order to evaluate skills not observed during live traffic.

16.4. CATCT or assistants are responsible for programming scenarios and incorporating training materials. Create an outage log to track and describe system/workstation malfunctions. Provide training, as needed, to run stand-alone or network scenarios.

16.4.1. Provide a print out of the basic keyboard commands as listed in the appropriate materials and maintain a readily available copy of the most current manuals.

16.5. Technical Support. For Air Traffic Control Training Device (ATCTD) and Simulation and Integration of Ground, Network and Air Links (SIGNAL) Software technical support, contact HQ Electronic Security Command OL-D/E, Tinker AFB, OK at DSN 884-7004. For other simulation systems, contact the appropriate technical support center as identified in applicable support agreements. For issues other than technical support, contact your MAJCOM ATC OPR.

17.2.2.3. All other entries as required.

17.2.2.4. AETC Form 156, Student Record of Training that shall remain in records until awarded 5 skill level.

17.2.7. Tab G: Any documents required by HQ AFFSA, MAJCOM, CCTLR, Previous Year's AF Form 1098 and expired documents for retention, etc.

Attachment 1

References

ADD: AFI 13-222, Airfield Operations Officer Training Program

DELETE: AFI 36-2210, Airfield Operations Officer Training Program

Abbreviations and Acronyms

DLT - Digital Linear Tapes

DTM - Digital Terrain Maps

DTAS - Digital Terminal Automation Systems

Terms

Stop Training. When a trainee is unable to accomplish knowledge based (including classroom instruction), simulator (including static scenarios), and OJT due to unforeseen events or inability to meet standards.

Simulation Scenario. Scripted scenarios designed to develop or maintain a controller's skills using simulation equipment (any simulation equipment developed for ATC use) or any static environment (to include non-radar and tower static boards).

DELETE - Qualified Apprentice Controller-An individual who is position certified, holds AFSC 1C131, has successfully completed a position certification but has not been awarded an SEI, recommended by the watch supervisor, and CCTLR and approved by the MAJCOM FM.

Attachment 5

A5.5.2.3. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A5.5.2.8. Last three OERs or EPRs (only for sub-standard performance) and any pertinent documents or statements deemed necessary.

Attachment 6

A6.5.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

Attachment 7

A7.5.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

Attachment 8

A8.5.1.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.

A8.5.1.6. Last three OERs or EPRs and any pertinent documents or statements deemed necessary.

Attachment 9

A9.3.2. Refer the suspended controller to the base flight surgeon to determine if there are medical problems which caused the actions for recommended withdrawal and/or verify the controller meets the ATC medical requirements in AFI 48-123.

A9.5.1.4. Medical evaluations need to be completed regardless of the type of withdrawal action being pursued.