BY ORDER OF THE COMMANDER
AIR EDUCATION AND TRAINING COMMAND

AIR EDUCATION AND TRAINING COMMAND INSTRUCTION 11-204

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Flying Operations

RUNWAY SUPERVISORY UNIT (RSU) OPERATIONS

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This instruction implements AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*. It prescribes requirements for runway supervisory unit (RSU) control of air traffic by AETC flying training wings, and groups to include Euro-North Atlantic Treaty Organization (NATO) Joint Jet Pilot Training (ENJJPT), and flying squadrons. It complements related guidance in Title 14 of the Code of Federal Regulations and applicable Air Force directives. With the exception of personnel participating in an AETC Associate Instructor Pilot (IP) program, this publication does not apply to Air National Guard (ANG) units, Air Force Reserve Command (AFRC) units, USAFA airmanship programs, or the 479 Flying Training Group (FTG). Unless otherwise specified, WG/CC (delegable no lower than SQ/CC) is the waiver authority for this instruction. See **Attachment 1** for a glossary of references and supporting information. Forward proposed unit-level supplements to this instruction to HQ AETC/A3V for coordination before publication. Submit suggested improvements to this supplement via AF Form 847, *Recommendation for Change of Publication,* through command Standardization/Evaluation (Stan/Eval) channels to the AETC/A3VO workflow email. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This revision lowers waiver authority to WG/CC; corrects administrative errors; changes tier compliance markings to comply with AFI 33-360; deletes outdated RCS positioning guidance (1.3); deletes requirement for an RSU Program Manager memo (1.4.2); deletes the RSU Monitor program requirement; deletes Class B RSU policy (**Table 2.1**); modifies RSU observation requirements (2.3.2); identifies 19AF as approval authority for RCS modifications (2.4.1); authorizes "speed dial" capability in place of hotlines (2.4.5.3); adds center runway monitoring guidance (3.9); allows RSU training documentation to be included in TIMS/GTIMS training record (4.3); authorizes AETC Form 393 electronic equivalent (4.3.1) and; deletes requirement for an AHC/ELP OJT tour before AHC/ELP controller certification training (A3.7).

Chapter 1

PROGRAM OVERVIEW AND ROLES AND RESPONSIBILITIES

1.1. Overview. Guidance cannot cover all situations. Supervisors are expected to use sound judgment in determining the requirement for a runway supervisory unit (RSU). The intent is to provide RSU supervision for the majority of local undergraduate flying training (UFT) and pilot instructor training (PIT) flying operations; in particular, multiple landings during periods of student training and solo student operations.

1.2. Waiver Authority. Policy and procedures are enacted to provide quality and consistency in training operations. This publication contains guidance proven to be effective in the past. However, the unit WG/CC (delegable no lower than SQ/CC) is the waiver authority for all compliance items unless they are derived from other publications in which case the waiver authority listed in the parent publication will be used. Waivers will be documented on AF Forms 679 and filed and distributed IAW AFI 33-360.

1.3. Runway Control Structure (RCS). RCS refers to the structure used by the runway supervisory unit (RSU) crew. AETC RCSs are usually permanent structures but properly equipped mobile units may be used. RCSs must be located IAW unified facilities criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design* located at: **https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc/ufc-3-260-01**.

1.4. Operations Group Commander (OG/CC) Responsibilities. The OG/CC is responsible for oversight of the RSU program. The OG/CC will:

1.4.1. Ensure each RSU position is manned by adequately trained and certified personnel.

1.4.2. Appoint an RSU program manager at the operations group standardization and evaluation (OGV) level.

1.4.3. Appoint one T-6 and one T-38 RSU training and standardization officer (RSUTSO) **Note:** Squadron appointed RSU training officers (RSUTO) may function as RSUTSOs at the discretion of the OG/CC. **Exception:** The OG/CC at Randolph AFB will appoint one T-38 RSUTSO.

1.4.4. Review and certify all controller AETC Forms 309, *RCS/RSU Crewmember Evaluation and Qualification Certificate.*

1.4.5. Review the training records and circumstances of controllers who exceed 90-day currency requirements to determine their suitability to remain in the RSU program. Document the review in the individual's training folder.

1.4.6. Ensure RSU control is provided to home station aircraft only. **Note:** This does not prevent an RSU controller from offering advice to other aircraft to prevent an accident. Relay advisories through the tower if time and conditions permit.

1.4.7. Establish procedures to transfer runway and pattern responsibility from one facility to another. Overlapping of control is prohibited. Granting the tower access to an RSU-controlled runway for a transient takeoff or landing does not require transfer of runway control. Transfer of runway control must however, be accomplished if emergency vehicles require access to or across an RSU-controlled runway. The RSU may keep pattern control

but controllers will not allow any aircraft to takeoff or land. Runway control may be returned to RSU control after all emergency response vehicles have crossed the affected runway or the emergency has been terminated.

1.4.8. Establish procedures to resolve conflicts between tower-controlled aircraft and RSU-controlled aircraft that are overshooting the final turn.

1.4.9. Establish procedures to ensure RSU-controlled traffic is separated from arriving and departing transient aircraft.

1.4.10. Establish procedures to relinquish RSU control of a runway to the tower when weather conditions prevent visual flight rules (VFR) traffic patterns.

1.4.11. Establish procedures to use if RSU or control tower communications fail.

1.5. RSU Program Manager Responsibilities. The RSU program manager must be a current RSU controller. The RSU program manager will:

1.5.1. Maintain overall control of the RSU program and function as the OG/CC point of contact on RSU issues.

1.5.2. Limit RCS maximum occupancy as follows:

1.5.2.1. Inside a large (permanent) RCS at one time 10 individuals.

1.5.2.2. Inside a small (mobile) RCS at one time six individuals.

1.5.3. Maintain a permanent visitor log or develop a process to verify that all orientation and required supervisory visits are accomplished.

1.5.4. Ensure the controller is seated at the end of the RCS closest to the runway approach end and the observer is seated at the opposite end.

1.5.5. Forward all open RCS discrepancies to the OG/CC each flying week.

1.5.6. Observe RSU operations at least once per quarter for a minimum of 1 hour. Visits will vary between each type of aircraft, document on AETC Form 1163, *RCS/RSU Supervisor's Critique.*

1.5.7. Review and provide AETC Forms 1163 to the respective T-6 or T-38 squadron commander (SQ/CC) and RSUTSO. 1.5.8. Where appropriate, use risk management (RM) principles in building necessary control measures into the RSU program. Examples of RM include mitigating the risk in RSU operations relating to solo students, poor or adverse weather, or crowded patterns. These are all cases where risk analysis and elevating concerns to more experienced and qualified supervisors such as the TOP 3 or OG/CC may be required.

1.5.8. Establish a currency requirement tracking system for all personnel in the RSU program.

1.6. RSU Training and Standardization Officer (RSUTSO) Responsibilities. The RSUTSO must be a qualified instructor controller. Each RSUTSO will:

1.6.1. Establish and supervise RSU program and crew training to include developing and maintaining written qualification examinations (see **Chapter 4**).

1.6.2. Administer, document, and route required controller AETC Forms 309.

1.6.3. Conduct quarterly RSU standardization meetings at a time and place that ensures maximum attendance (see paragraph **5.5**).

1.6.4. Conduct instructor upgrade briefings.

1.6.5. Conduct no-notice evaluations (see paragraph **5.7**).

1.6.6. Review all AETC Forms 1163 and maintain them in accordance with AFI 33-364 and AFRIMS RDS.

1.6.7. For RCS facilities with an auxiliary power unit (APU) requirement:

1.6.7.1. Establish a training program with local power production personnel to ensure all controllers and observers are certified in APU operations.

1.6.7.2. Evaluate and document APU operating procedures on initial controller evaluations and during initial observer training.

1.6.8. Ensure current documents are available (electronic or hardcopies) for use in active RCSs. Minimum required documents include:

1.6.8.1. AETCI 11-204 (with local supplement).

1.6.8.2. Local area pattern guidance.

1.6.8.3. Applicable aircraft flight manuals.

1.6.8.4. Quick-reaction checklists.

1.6.8.5. Local area maps marked with prominent landmarks and emergency fields.

1.7. SQ/CC Responsibilities. Each T-6 and T-38 SQ/CC will:

1.7.1. Select and appoint the minimum number of personnel required to safely accomplish RSU operations.

1.7.2. Establish a continuing education program for the instructor force covering all aspects of RSU pattern operations.

1.7.3. Ensure controllers are evenly distributed throughout the squadron. Each flight should normally have at least one assigned controller.

1.7.4. Review and sign controller and observer AETC Forms 309.

1.7.5. Appoint a RSUTO if the squadron has qualified RSU personnel.

1.7.6. Appoint one additional controller evaluator (per squadron assigned to RSU), if desired.

1.7.7. Appoint an RCS facility officer. **Note:** If the RSUTSO or RSUTO serves as the facility officer, no additional appointment is required. Civilian contractors serving as facility officers will comply with their statement of work.

1.7.8. Review the training records and circumstances of controllers who exceed 30-day currency requirements (45 days for the 12th Flying Training Wing [12 FTW]) and ensure all instances, regardless of duration, are documented in the controller's training folder.

1.8. RSUTO Responsibilities. Each T-6 and T-38 RSUTO must be a qualified instructor controller and will:

1.8.1. Ensure an accurate quarterly traffic count for each RSU operation is furnished to the wing airspace office no later than 5 workdays after the end of each quarter.

1.8.2. Administer, document, and route required controller AETC Forms 309.

1.8.3. Maintain training folders on all controllers and observers (see **Chapter 4**).

1.8.4. Track RSU crew currency.

1.8.5. Ensure development of the master RSU schedule.

1.8.6. Maintain AETC Forms 355, *Runway Control Structure (RCS)Runway Supervisory Unit (RSU) Log*, or an equivalent electronic product approved by the unit publishing function to show dates and runways on which each controller and observer performs duty. Maintain these records in accordance with AFI 33-364 and AFRIMS RDS.

1.8.7. Ensure appropriate supervisors and aircrews are informed of information derived from AETC Forms 355.

1.8.8. Conduct no-notice evaluations (see paragraph **5.7**).

1.8.9. Accomplish duties assigned by the RSUTSO.

1.9. Squadron Commander-Appointed RSU Controller Evaluator. This individual:

1.9.1. Must be a current and qualified instructor controller.

1.9.2. Administers, documents, and routes required controller AETC Forms 309.

1.9.3. Assists RSUTSO and RSUTO with initial and periodic controller evaluations; however, will not conduct no-notice evaluations.

1.10. RCS Facility Officer Responsibilities. Each T-6 and T-38 RCS facility officer will:

1.10.1. Ensure all equipment is operational, at each RCS facility and provide weekly inputs to the OGV program manager (see paragraphs **2.4.5** through **2.4.5.11**).

1.10.2. Ensure AETC Form 360, *Runway Control Structure (RCS)/Runway Supervisory Unit (RSU) Discrepancy Log*, or an equivalent electronic product approved by the unit publishing function that provides the same information, is used to document RCS discrepancies. Open AETC Form 360 write-ups must be accessible from the RCS.

1.10.3. Notify the RSU program manager of open AETC Form 360 write-ups at the beginning of each flying week.

1.10.4. Maintain a file of completed AETC Forms 360, or equivalent electronic documents approved by the unit publishing manager, for each RCS. Retain the file in accordance with AFI 33-364 and AFRIMS RDS.

1.10.5. Conduct a monthly inspection of RCS structure and component equipment, see **Attachment 2** for the RCS checklist. Maintain a copy of the inspection results in accordance with AFI 33-364 and AFRIMS RDS.

1.10.6. Maintain a permanent record for each RCS using AFTO Form 95, *Significant Historical Data*. The AFTO Form 95 contains major modifications or repairs to the structure and component equipment. (AFTO Form 95 is prescribed by TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*. Refer to that

publication for guidance on completing the form.) HQ AETC/A6OL must review and coordinate on requests for modification of communications equipment. Modifications will not be made to standard RCS design and equipment without the approval of 19AF and the AETC/A7C.

Chapter 2

RSU REQUIREMENTS

2.1. RSU Control. Establish RSU control of runways according to **Table 2.1**. Provide RSU service based on the type of operations conducted.

2.2. RSU Staffing. Staff the RSU according to operational requirements (see **Table 2.2**).

Table 2.1. RSU Requirements.

ITEM	A	B	C
	Type of Operations	**RSU Required**	**No RSU Required**
1	T-6 and T-38 student flying at home or auxiliary fields in an RSU-controlled pattern (Note 1)	X	
2	T-6 and T-38 student-flown night overhead patterns at the home field (Note 1)	X	
3	T-6 and T-38 dual student sorties under tower control at the home field (Note 2)		X
4	AHC/ELP sortie operations (Notes 1, 3, and 4)	X	
5	Solo student sorties at the home field (Notes 1, 2, 5, and 6)	X	
6	Dual cross-country or out-and-back departures and returns and T-1A sorties		X
7	Randolph and Pensacola operations (Note 7)		X
8	T-1A, T-6, and T-38 student sorties, dual or solo, at other than home or auxiliary fields (Notes 8 and 9)		X
9	Nonstudent sorties (Note 10)		X
10	One full-stop landing and one takeoff by aircraft used to transport RSU crews to and from the auxiliary field (Note 11)		X

Notes:

1. Does not preclude temporary control of the runway by the tower (that is, emergency vehicle crossings) as long as the RSU controller continues to control the traffic pattern as needed to comply with tower controlled runway requirements (that is, restricted low approach). Units are responsible for developing appropriate procedures.

2. Units will document how to monitor center runway operations IAW paragraph 3.9. Document procedures in a unit supplement to AETCI 11-204.

3. Randolph AFB PIT may conduct T-6 AHC maneuvers in the tower controlled pattern as long as the supervisor of flying [SOF] monitors pattern operations, and no other

aircraft monitored by the SOF are airborne in the local area. AHC ELPs flown in the Randolph AFB tower controlled pattern will be flown under the supervision of a tower controller and SOF who have received an orientation on T-6 AHC ELP operations. This orientation will be given by the runway supervisory unit training and standardization officer, runway supervisory unit training officer, or the SOF program manager and will cover basic AHC ELP operations as well as the SOF/tower controller's role in making safety-of-flight radio calls (i.e., "go around," "discontinue").

4. 479FTG will conduct T-6 AHC pattern operations in the Pensacola NAS tower-controlled pattern. 479FTG/CC will ensure USN tower controllers receive an orientation briefing on T-6 AHC pattern operations. This orientation will cover AHC ELP pattern operations, with specific guidance on the tower controller's role in making safety-of-flight radio calls ("go around/wave-off", "discontinue", etc.)

5. T-38 supervised solo out-and-back and solo night navigation sorties may depart or return (one pattern to a full stop) under tower control.

6. Local T-38 solo student sorties may depart or return (one pattern to a full stop) under tower control as long as a RSU is open on the primary T-38 runway. (**Exception*:*** Solo student contact and/or transition sorties will return to an RSU controlled pattern.) Local T-6 solo student sorties may depart under tower control at the discretion of the OG/CC as long as a RSU is open on the T-6 runway.

7. Randolph auxiliary airfield operations require a RSU.

8. T-38 supervised solo single-ship sorties: Before any students arriving, landing, or departing an out base, an assistant flight commander or above (if unavailable, a qualified RSU controller) will be in place at the approach end of the active runway or in the control tower. He or she will have the proper publications, act as the on-scene mission commander, and advise the air traffic controller in emergency situations. Personnel performing this duty must not interfere with control tower operations. On-scene commanders will ensure they have a VHF discreet frequency to communicate with the students. This requirement is waived if a RSU and a SOF are in place at the out base and the on-scene commander has relayed the call signs of all aircraft in the deployment to the current SOF.

9. T-38 Formation solo O&B sorties: Solo students are required to land before their formation flight lead that will serve as on-scene commander and advise ATC in emergency situations.

10. Includes ENJJPT PIT and transition (trainee) syllabus sorties.

11. Opening RSU crews will check the condition of the auxiliary field's runway by conducting a low approach before landing.

Table 2.2. T-6 and T-38 RSU Staffing.

ITEM	A	B	C
	Condition	**Home Field**	**Auxiliary Field**
1	Day	Controller, observer, spotter, and recorder	Controller and observer
2	Night	Controller, observer, and recorder	Not applicable

2.3. Supervisory Visits. Active supervision of the RSU program by unit leadership is critical to safe and effective flying operations. Required visit intervals defined below should be considered absolute minimums and more frequent observations by supervisors at all levels are encouraged. Supervisors will use an AETC Form 1163 to record their observations of RSU crew performance, aircrew compliance with traffic pattern procedures, and overall radio discipline during each visit. The RSUTSO will review AETC Forms 1163 and send them (as a minimum) to the OGV program manager, facility manager (if facility related), and SQ/CC for their review. The minimum frequency of supervisory visits is as follows:

2.3.1. The OG/CC or OG/CD and the RSU program manager will observe RSU operations at least once per quarter. Visitation to each home and auxiliary field RSU is highly encouraged during each quarter.

2.3.2. T-6 and T-38 squadron commanders and operations officers will observe RSU operations in their respective RSUs at least once each quarter. CCs and DOs will alternate visits between the home and auxiliary field. Units that have more than one squadron per MDS may alternate visits between squadrons.

2.3.3. The 560 FTS CC, DO, or ADO may alternate RSU visits, but each CC will ensure supervisory visitation occurs on a monthly basis. Flight CC participation is encouraged, but not required.

2.4. Equipment and Maintenance:

2.4.1. RCSs are real property; base civil engineering units provide for their support and maintenance. Modifications will not be made to standard RCS design and equipment without the approval of 19 AF. AETC/A7 and AETC/A6 must review and coordinate all requests for modifications.

2.4.2. The RSU crew will notify the appropriate agency of any maintenance discrepancy and obtain a job control number and an estimated completion time.

2.4.3. For onsite repairs, the individual providing the repair completes the appropriate portions of AETC Form 360, showing actions taken and notifies the RCS facility officer. If the cause of the discrepancy cannot be determined, the repair person annotates in the corrective action block “could not duplicate,” and notifies the RCS facility officer. **Note:** Repeat intermittent operation write-ups with no determined cause will require a thorough inspection of affected system components.

2.4.4. Maintenance personnel will document removal and replacement of RCS communications equipment on AETC Form 360 to include serial numbers, if applicable.

2.4.5. The RCS facility officer or appointed alternate ensures RCS equipment is operational, as applicable. RCS equipment includes:

2.4.5.1. **Radios.** Normal RCS radio configuration should consist of three radios (one single-channel primary frequency, one single-channel guard frequency, and one multifrequency). Radios must provide transmit, receive, and record capability. OG/CC may approve an RSU opening or remaining open with only two radios (one primary frequency and one guard frequency) only if both have transmit and receive capability. RSU may also remain open if the record capability is inoperable. Consider both situations a temporary configuration to allow operations while the inoperative radio is expeditiously repaired. Each RCS is equipped with an RSU upgrade position that overrides transmissions from the trainee's position.

2.4.5.2. **Telephones.** Each RCS should have a minimum of one Class C telephone line and two telephones. **Note:** OG/CC may approve operations at the auxiliary field without this requirement provided an operable cellular telephone is available.

2.4.5.3. **Hotlines.** Hotlines (or speed-dial capability) should be available to ensure direct contact with the following: **Note:** OG/CC may approve operations without these requirements provided an operable speed dial capability is available.

2.4.5.3.1. Tower. **Note:** Auxiliary fields are exempt.

2.4.5.3.2. Ground control approach (GCA). **Note:** Required for runways where precision approach radar or airport surveillance radar (ASR) approaches are flown (except emergency-only ASRs).

2.4.5.3.3. SOF. **Note:** The tower and SOF may share the same line if the activities are collocated.

2.4.5.3.4. Crash or rescue.

2.4.5.3.5. Other RCSs serving parallel runways, as necessary.

2.4.5.3.6. Other agencies as required.

2.4.5.4. **Flare Pistols (Optional).** If flares are maintained and used, at least two flare pistols and six flare cartridges should be in place and operable at the start of flying.

2.4.5.5. **Light Gun.** A light gun will be available in each RCS.

2.4.5.6. **Binoculars.** Two sets of binoculars at home field and one set at the auxiliary field are required.

2.4.5.7. **Wind-Measuring Equipment.** Each RCS must be able to display current wind information (both direction and velocity) either through a dedicated wind-measuring system or a remote access system. At the home field, a temporary operation without this equipment is acceptable when alternate procedures (such as a tower) are established to obtain accurate wind information. At the auxiliary field, a temporary operation without this equipment is acceptable with OG/CC approval after close scrutiny of current and forecasted weather and winds. In either case, consider this a temporary configuration to allow operations while the equipment is expeditiously repaired.

2.4.5.8. **Portable Toilet Facilities.** As required.

2.4.5.9. **Air-Conditioner and Heater.** An air-conditioner and heater capable of maintaining temperatures within the RCS between 70 degrees and 75 degrees Fahrenheit are required.

2.4.5.10. **Auxiliary Power Unit (APU).** An APU capable of supporting essential RCS equipment (including air-conditioner) during commercial power outages is required. (**Exception:** APUs are not required to be prepositioned at RCSs if the OG/CC and base civil engineer jointly concur that predicted reliability of commercial power is sufficient to satisfy RSU and divert requirements.) For RCSs with an APU requirement:

2.4.5.10.1. RSUTSOs will establish a training program with local power production personnel to ensure all controllers and observers are certified in APU operations.

2.4.5.10.2. The OG/CC may approve continued RSU operations with an inoperable APU as long as commercial power is available. If commercial power is subsequently lost, the RSU crew will notify airborne aircrews that communication capability has been lost according to local guidance. The RSU crew must contact the appropriate agency to ensure the APU is repaired as quickly as possible.

2.4.5.11. **Dehumidifier.** Install a dehumidifier in each RCS to ensure humidity levels remain acceptable for electronics equipment. (**Exception:** A dehumidifier is not required if the air conditioner is not turned off.) **Note:** Establish an outside drain for the dehumidifier since facilities are not always occupied.

2.4.6. **BAK-15 Aircraft Arresting System Components.** Test the BAK-15 at the beginning of each flying week. With OG/CC approval, an RSU may open or remain open with an inoperable BAK-15 barrier. Consider this a temporary configuration to allow operation while the barrier is expeditiously repaired.

2.5. Handling and Storing Procedures for Flares and Flare Pistols. Maintenance and use of flares is optional. If flares are maintained and used, units must comply with the following requirements:

2.5.1. Because flares and flare pistols are classified as munitions and firearms, RSU personnel handling them must apply the special security and storage procedures in AFMAN 91-201, *Explosive Safety Standards.*

2.5.2. RSU personnel who handle flares and flare pistols must complete initial and recurring training according to AFMAN 91-201. They must also comply with the following procedures:

2.5.2.1. Load flare pistols only after they are installed in a flare port. Unload the pistol before removal from a flare port.

2.5.2.2. If a dry firing check is required, install the flare pistol in the flare port before firing.

2.5.2.3. Leave the breech open when the flare pistol is not secured in the flare port.

2.5.2.4. If a flare fails to fire, make two more attempts. If the flare still fails to fire, use the other pistol. Wait at least 30 seconds after a misfire, then open the breech, unload the pistol, and examine the flare for primer indentation by the firing pin.

2.5.2.4.1. If an indentation exists, reload the pistol with a new flare, place the misfired flare into a container marked “misfired flares,” and place the container outside the RCS.

2.5.2.4.2. If no indentation exists, remove the pistol from service and have qualified personnel conduct an inspection of the pistol.

2.5.3. Bases will establish local procedures for disposal of the misfired flares as well as inspection and maintenance of pistols and their mounts. Bases will publish local procedures according to guidance in AFI 33-360, *Publications and Forms Management*.

Chapter 3

CREW QUALIFICATION AND DUTIES

3.1. Controller Qualification:

3.1.1. The SQ/CC will select the minimum number of controllers necessary to satisfy mission requirements, attempting to ensure an overall balance between first assignment instructor pilots and major weapon system personnel.

3.1.2. RSU controllers are selected from the most highly qualified, current instructor pilots (IP) with at least 6 months IP experience in current aircraft and a minimum of 90 days experience as an observer. Controller candidates, regardless of previous experience or qualification, will complete the initial qualification controller syllabus outlined in **Attachment 3**. Proficiency advancement is authorized at the discretion of the OG/CC.

3.1.3. The initial qualification evaluation should include all aspects of a normally scheduled RSU tour (crew brief, control of overhead traffic, debrief, etc). The tour length will be an entire scheduled tour. Periodic evaluations should be planned for 2 hours minimum.

3.1.4. Before controlling traffic at night, a minimum of 1 night on-the-job-training (OJT) tour with a minimum length of 2 hours is required. If the night tour is not accomplished, the Letter of Xs will reflect a day-only qualification.

3.1.5. After completion of the initial evaluation, but before performing unsupervised controller duties, the OG/CC must interview the candidate; sign the AETC Form 309 as well as the AF Form 4348. The SQ/CC ensures the Letter of Xs is updated to reflect this qualification. Currency requirements and the evaluation zone are based on the day and month of the evaluation. Subsequent AETC Forms 309 are reviewed and signed by the OG/CC.

3.1.6. Before performing aircraft handling characteristics/emergency landing pattern (AHC/ELP) controller duties, RSU controllers will accomplish all qualification requirements established in **Attachment 3**.

3.1.7. If a controller fails the initial or periodic evaluation, the evaluator will document the results on the AETC Form 309. (T-2) The RSUTSO or RSUTO will consult with the individual's SQ/CC to determine whether to retrain or withdraw the controller from the program. If training is continued, the controller will complete the recommended retraining and accomplish the evaluation. **Note:** Current controllers who were RSU observer instructors before controller upgrade may perform instructor observer duties. All night RSU operations require a controller to have a night qualification.

3.2. Instructor Controller Qualification. The SQ/CC will designate the minimum number of controllers necessary to perform instructor controller duties. Candidates must have 6 months of current controller experience or have accomplished 20 tours. Before performing instructor controller duties, trainees will receive an instructor controller briefing from the RSUTSO**.** The RSUTO can give this briefing if the RSUTSO is not available (leave, temporary duty [TDY], etc.). Instructor controllers will be tracked on the Letter of Xs.

3.3. Controller Duties. The RSU controller is responsible for the safe and efficient control of all aircraft under the RSU's jurisdiction, including air discipline, pattern conformity, and

compliance with established procedures. However, he or she is not responsible for individual aircrew training requirements. The RSU controller will:

3.3.1. Use preventive control procedures to ensure flight safety within the RSU pattern. (**Note:** Preventive controls are aimed at avoiding an unwanted situation.)

3.3.2. Resolve pattern conflicts, using any means necessary (to include plain English).

3.3.3. Issue traffic priority to emergency and minimum fuel aircraft.

3.3.4. Positively identify solos, particularly Commander's Awareness Program solos, at all times and issue traffic priority as the situation dictates.

3.3.5. Brief the observer, spotter, and recorder on their duties before each tour.

3.3.6. Focus attention on the lowest, slowest airborne aircraft within his or her primary area of responsibility (AOR). The controller is responsible for the entire pattern. However, his or her primary AOR should emphasize that part of the traffic pattern from:

3.3.6.1. Initial to overhead the RCS.

3.3.6.2. Closed downwind abeam the RCS to the perch (high key or base key).

3.3.6.3. The final turn through the final approach and touchdown zone.

3.3.7. Verbalize handoffs of overheads, long landings, and go-arounds. **Note:** Verbal handoffs are designed to prevent unnecessary overlap between AORs. Controllers may need to glance into the observer's AOR for situational awareness, but should not use this technique repeatedly as a substitute for good cockpit/crew resource management (CRM).

3.3.8. Ensure proper use of AETC Form 355 or equivalent product approved by their unit publishing manager, to record takeoff and landing times and pattern comments.

3.3.9. Initiate a preliminary communications search when a single-ship local T-38 student solo sortie is airborne for 1 hour, increase this time to 1+20 for other T-38 sorties, 1+20 for T-6 student solo sorties, 1+45 for other T-6 sorties, and 3+10 for T-1A sorties. Notify the SOF if the preliminary communications search is unsuccessful.

3.3.10. Advise the SOF if weather observed is incompatible with the current flying status. In coordination with the SOF, take immediate action when weather dictates.

3.3.11. Announce landing direction, pattern status, wake turbulence advisories, pattern trends, and winds as appropriate, to facilitate safe and efficient pattern operations.

3.3.12. Announce bird condition, advisories on the location and flight path of any large influx of birds in the vicinity of the airfield, activities of other aircraft that may affect the traffic pattern, and other conditions, as appropriate, that may affect safety of operations.

3.3.13. Ensure aircraft-arresting barriers are operational and in the proper position before clearing aircraft for takeoff or landing.

3.3.14. Ensure aircraft are visually checked for proper configuration before takeoff or landing.

3.3.15. Report deviations from established procedures to the appropriate squadron supervisor.

3.3.16. Not attempt to maintain the normal volume and pace of pattern operations when emergency situations arise. To maintain situational awareness on the emergency aircraft, the RSU controller will:

3.3.16.1. Consider using any combination of the following: stop launch, stop pattern entries, restricted low approach, straight through initial, etc.

3.3.16.2. Time permitting, review emergency procedures with the aircraft and coordinate actions with the SOF.

3.3.16.3. Designate an aircraft with an instructor onboard to fly as chase when an emergency aircraft in the VFR pattern requires airborne assistance.

3.3.17. Notify base operations (or other appropriate agency tasked with barrier maintenance) if an aircraft disturbs the down barrier in the approach end overrun.

3.3.18. Not permit other duties (upgrades, telephone calls, facility maintenance, etc.) to distract attention from his or her primary controller responsibilities.

3.4. Observer Qualification:

3.4.1. The SQ/CC will select the minimum number of observers necessary to satisfy mission requirements.

3.4.2. RSU observers are selected from the most highly qualified and current IPs with at least 3 months of IP experience in their assigned aircraft accumulated during their current duty assignment.

3.4.2.1. Observer trainees in the 560 FTS must be rated pilots current and qualified in the aircraft being observed.

3.4.2.2. Observer trainees in ENJPPT must have at least 1 month of experience as an IP during their current tour.

3.4.3. The RSUTSO must ensure all training is accomplished before the trainee performs observer duties. Observers performing duties at night will accomplish one 2-hour night OJT tour under the supervision of a night-qualified controller or night-qualified upgrade observer. If the night tour is not accomplished, the Letter of Xs must reflect a day-only qualification. Currency requirements will begin on the day of the last upgrade tour.

3.5. Instructor Observer Qualification. The SQ/CC will designate the minimum number of observers necessary to perform instructor observer duties. Instructor observers must have 3 months of current observer experience or have accomplished 10 tours. Before performing instructor observer duties, instructor observers will receive a briefing from the RSUTSO. The RSUTO can give this briefing if the RSUTSO is not available (leave, TDY, etc.). Instructor observers will be tracked on the Letter of Xs.

3.6. Observer Duties. The observer is responsible for compliance with the requirements established by the controller during the briefing, but he or she is not responsible for individual aircrew training requirements. The observer will:

3.6.1. Focus attention on the lowest, slowest airborne aircraft within his or her AOR. **Note:** The observer's primary AOR is defined as that part of the traffic pattern from the end of the

touchdown zone through the first turn out of traffic, aircraft carrying straight through initial, aircraft in the break, and closed patterns upwind of the RCS.

3.6.2. Acknowledge handoffs of overheads, go-arounds, and long landings. **Note:** Verbal handoffs are designed to prevent unnecessary overlap between AORs. Observers may need to glance into the controller's AOR for situational awareness, but should not use this technique repeatedly as a substitute for good CRM.

3.6.3. Inform the controller when aircraft commence the break and when departure leg or offset turn crosswind.

3.6.4. Build a verbal picture for the controller of his or her AOR and suggest a course of action. (T-2) When time constraints prevent building a verbal picture, the observer will not hesitate to use the radio to prevent a conflict from developing or to ensure safety of flight.

3.6.5. Closely monitor the departure roll, departure leg, and landing.

3.6.6. Coordinate terminology for "spacing" requests during the crew briefing.

3.6.7. Notify the controller of deviations from established pattern procedures.

3.7. Spotter Qualification and Duties. The spotter must be an IP, a recent UFT graduate, or a post-solo UFT student undergoing training in the aircraft being controlled. He or she will:

3.7.1. Comply with the requirements established by the controller during the briefing.

3.7.2. Check aircraft for proper configuration before takeoff and landing and immediately notify the controller of irregularities.

3.7.3. Monitor aircraft in final turn and inform the controller of deviations (overshoots, higher or lower than normal final turns, configuration inconsistencies, etc).

3.8. Recorder Qualification and Duties. The recorder must be an IP, a recent UFT graduate, or a student undergoing training or awaiting UFT. He or she will:

3.8.1. Comply with the requirements established by the controller during the briefing.

3.8.2. Use AETC Form 355 or equivalent, approved by the unit publishing manager, to record takeoff and landing times and appropriate comments and to ensure aircraft accountability.

3.8.3. Inform the controller when aircraft exceed flight times (see paragraph **3.3.9**) or aircraft volume limitations (see paragraph **7.2.3**).

3.9. Center Runway Monitoring:

3.9.1. Monitor ejection seat armed radio calls.

3.9.2. Ensure all aircraft are visually checked for proper configuration before takeoff or landing.

3.9.3. Transmit proper instructions to prevent potentially hazardous situations during takeoff and landing.

3.9.4. Report deviations from established procedures to the appropriate squadron supervisor.

3.9.5. Use AETC Form 355 or equivalent, approved by the unit publishing manager, to record takeoff and landing times.

3.9.6. Initiate a preliminary communications search when a single-ship local T-38 student solo sortie is airborne for 1 hour, increase this time to 1+20 for other T-38 sorties, 1+20 for T-6 student solo sorties, 1+45 for other T-6 sorties, and 3+10 for T-1A sorties. Notify the SOF if the preliminary communications search is unsuccessful.

3.9.7. Notify base operations if an aircraft disturbs the down barrier in the approach end overrun.

Chapter 4

QUALIFICATION TRAINING PROGRAMS

4.1. Controller Training. RSUTSOs must establish and supervise a controller training program that includes the following:

4.1.1. **Initial Qualification Training.** Conduct initial qualification training according to syllabus requirements in **Attachment 3**. In addition, accomplish an oral and written examination on controller responsibilities and appropriate RSU directives before the evaluation.

4.1.2. Requalification Training:

4.1.2.1. Qualified controllers who have been out of currency for no more than 5 years may complete requalification at the discretion of the SQ/CC.

4.1.2.2. The syllabus for requalification is the same as the syllabus for initial qualification (see **Attachment 3**). However, the OG/CC, at his or her discretion, may authorize proficiency advancement after a minimum of three, 2-hour OJT tours if all syllabus items are completed. Requalification also includes completing an oral evaluation, written test, and a performance evaluation.

4.1.2.3. Do not conduct controller and observer upgrade training simultaneously.

4.1.2.4. Night requalification requires an additional 2-hour night tour.

4.2. Observer Training. RSUTSOs must establish and supervise an observer training program that includes the following:

4.2.1. **Initial Qualification Training.** Each observer trainee will:

4.2.1.1. Review applicable RSU publications.

4.2.1.2. Accomplish a minimum of two 2-hour OJT tours under the supervision of an instructor observer, controller or instructor controller. (**Exception:** Personnel assigned to the 560 FTS must accomplish a minimum of one 2-hour OJT tour. The 560 FTS will specify observer training and documentation in local directives.) If a controller or instructor controller performs instructor observer duties (day or night), he or she will not simultaneously control traffic and conduct observer upgrade training. Training will include normal observer functions with emphasis on responsibilities during emergencies. Before accomplishing duties as an observer at night, accomplish one additional 2-hour night OJT tour under the supervision of a night-qualified instructor controller, controller or instructor observer. If a night checkout is not accomplished, the Letter of Xs will reflect a day-only qualification.

4.2.1.3. Complete a 25-question written examination on observer responsibilities and appropriate RSU directives. Conduct the examination before the final day OJT tour.

4.2.1.4. Receive an oral evaluation administered by the RSUTSO or RSUTO, covering observer responsibilities. The RSUTSO or RSUTO, as appropriate, signs the AETC Form 309 after the evaluation is completed.

4.2.2. **Documentation of Training.** Completion of training will be documented on AETC Form 309. Currency requirements begin on completion of the last OJT tour. Document any loss of currency in the individual training record. Provide the folder to the individual upon his or her removal from observer duties or a change of station.

4.2.3. Requalification Training:

4.2.3.1. The OG/CC will determine requirements for observer requalification training. As a minimum, the training must include a review of all RSU directives, a 25-question written test, and a 1-hour OJT tour with an instructor observer.

4.2.3.2. A current controller may perform instructor observer duties, but he or she will not simultaneously control traffic and conduct observer upgrade training.

4.2.3.3. Night requalification requires an additional 2-hour night tour.

4.3. Training Documentation. Each RSUTO must maintain a training record for each controller and observer trainee. **Note:** Training documentation may be included in the electronic TIMS/GTIMS training folder. The RSUTO maintains the folder as long as the individual is an active controller or observer and sends it with the individual when he or she transfers intracommand. The record contents include:

4.3.1. **AETC Form 393, RCS/RSU Controller Record of Training.** Use AETC Form 393 or an equivalent electronic product to record items accomplished during OJT tours. Add items and procedures peculiar to the local area to the bottom or back of the form or to a supplemental sheet.

4.3.2. **AF IMT 4293, Student Activity Record.** Use AF IMT 4293 to record comments on the trainee's progress after each OJT tour. As a minimum, comments must address unusual occurrences, strengths and weaknesses, and any applicable restrictions. A locally produced form may be used in place of the AF IMT 4293, if approved by HQ AETC/A3V and the unit publishing function.

4.3.3. **AETC Form 309.** Use the AETC Form 309 to document evaluation performance. Rate each performance as "qualified" or "unqualified." Use AETC Form 309 to document outstanding performances. The Letter of Xs reflects qualification.

4.3.4. **Statement of Requalification.** Use a statement of requalification for each episode of lost currency.

Chapter 5

CURRENCY REQUIREMENTS AND RESTRICTIONS

5.1. Currency Documentation. The RSU program manager will establish a currency requirement tracking system for all personnel in the RSU program. This system should allow for easy review of data relating to the number of tours accomplished, duration, dates of tour, etc. **Note:** When accomplishing recurrency or requalification tours, both the instructor and trainee must log the tour in order to verify proper completion of requalification training.

5.2. Flight Currency, Medical, and Crew Duty Day Restrictions:

5.2.1. If an individual is grounded for an extended period, the OG/CC may authorize RSU controller or observer duty without aircraft qualification or currency. Document the authorization in the individual's training folder. During the grounded period, the individual will satisfy all RSU duty prerequisites (go/no-go items, RSU meeting attendance, etc.) and currencies.

5.2.2. RSU crewmembers that are medically excused from flying duty or grounded may not perform RSU duty without specific written clearance from the flight surgeon.

5.2.3. RSU crewmembers are not permitted to perform RSU duty if such duty will extend their crew duty period beyond 12 hours. **Note:** RSU duty is a flying-related activity and must be considered when scheduling instructors and students (for student night flying operations, etc.).

5.3. Controller Currency:

5.3.1. To satisfy minimum currency requirements, controllers will perform RSU duties for at least 1 hour every 30-calendar days (45 days for the 12 FTW). A full-length, regularly scheduled tour is the preferred method for updating controller currency. A controller performing instructor duties may log a tour to meet this requirement. **Note:** Initial currency is based on the date of the initial evaluation, not the date the OG/CC signs the AETC Form 309.

5.3.2. If 30 days pass without performing controller duties (45 days for the 12 FTW), the controller must undergo refresher training to include a review of applicable RSU publications and a 1-hour OJT tour under the supervision of a current instructor controller. Document the loss of currency and recurrency in the individual's training record.

5.3.3. If 60 days pass without performing controller duties, the controller must undergo refresher training of at least two 2-hour tours under the supervision of an instructor controller. In addition, the controller must accomplish a written examination. Document the loss of currency and recurrency in the individual's training record.

5.3.4. If more than 90 days pass without performing controller duties, the controller must complete requalification training (see paragraph **4.1.2**). Base the periodic evaluation zone on the new qualification date. Indicate the reason for requalification on AETC Form 309.

5.3.5. The SQ/CC must review each instance of lost currency and ensure the review is documented in the individual's training record.

5.3.6. The OG/CC must review the circumstances for an individual who exceeds 90-day currency to determine his or her suitability to remain in the RSU program. Document the review in the individual's training record.

5.4. Observer Currency:

5.4.1. To satisfy minimum currency requirements, each observer must perform RSU duty at least once every 45 days. An observer performing instructor duties may log a tour to meet this requirement.

5.4.2. If 45 days pass without performing observer duties, the observer must undergo refresher training to include a review of applicable RSU publications and a 1-hour OJT tour under the supervision of a current instructor controller or instructor observer. **Note:** Controllers may perform instructor observer duties, but they will not simultaneously control traffic and conduct observer upgrade training.

5.4.3. If more than 60 days pass without performing observer duties, the observer must complete refresher training to include a 1-hour requalification tour, an oral evaluation, and a written examination.

5.4.4. The SQ/CC must review each instance of lost currency. Document the review in the individual's training record.

5.5. Quarterly RSU Standardization Meeting:

5.5.1. Conduct quarterly RSU standardization meetings at a time and place that will ensure maximum attendance. As a minimum, include an emergency scenario, trends, and current issues. Discussion of how solos may complicate the scenario is recommended.

5.5.2. Mandatory attendees include all RSU-qualified IP crewmembers, the OG/CC or OG/CD, the respective SQ/CC or DO, and the OGV program manager or alternate. **Exception:** Randolph PIT trainees are not required to attend. These meetings will take priority over simulators and/or flying. Appointments will be scheduled to avoid conflicts with the RSU meeting. Develop a process to ensure RSU crewmembers not in attendance read and initial the meeting minutes before their next RSU tour. Meeting minutes must clearly communicate all pertinent aspects of the meeting, particularly emergency procedure discussions and resolutions.

5.6. Controller Performance Evaluations:

5.6.1. Establish the evaluation zone from the 12th through the 17th month from the initial or previous evaluation. The examinee must demonstrate the ability to perform controller duties and as well as a full knowledge of applicable directives, aircraft performance characteristics, operating limitations, emergency procedures, and APU procedures (if applicable).

5.6.2. Document the evaluation performance on the AETC Form 309 and route through the OG/CC for signature. Initial and periodic performance evaluation prerequisites are an oral evaluation; a 25-question, written test based on controller responsibilities; and a review of appropriate RSU directives.

5.7. Controller No-Notice Evaluations:

5.7.1. Each RSUTSO and RSUTO will conduct no-notice evaluations. The no-notice program has three parts: (1) follow-up monitoring of individuals with previously identified

deficiencies, (2) evaluations associated with local unit evaluations, and (3) random sampling of the assigned RSU crew force (quality of force). The no-notice program will include sufficient controller evaluations to ensure quality of force is maintained.

5.7.2. No-notice evaluations should not be used as a scheduling tool to satisfy periodic evaluation requirements. Administered correctly, no-notice evaluations may count for the periodic evaluation if all other evaluation requirements are completed within 30 calendar days of the evaluation.

5.7.3. The new evaluation zone is based on the date of the no-notice evaluation.

Chapter 6

TRAFFIC PATTERN OPERATIONS

6.1. Conduct of Operations: When established within Class C airspace, conduct RSU patterns within practice areas as defined in local operating agreements. Participating local aircraft in the practice areas are exempt from Class C services and will instead operate according to local guidelines.

6.1.1. RSU patterns exist to facilitate safe and efficient VFR traffic pattern operations. RSU personnel will use preventive control procedures to ensure flight safety within the RSU pattern, but are not responsible for individual aircrew training requirements. (**Note:** Preventive control is aimed at avoiding an unwanted situation.) The following are examples of preventive control:

6.1.1.1. Denying closed requests with aircraft on initial.

6.1.1.2. Denying closed requests with straight-in traffic between 9 and 4 miles from touchdown (5 and 2 miles for T-6s).

6.1.1.3. Denying late closed requests.

6.1.1.4. Denying straight-in requests or clearance.

6.1.1.5. Preventing aircraft from initiating the break with straight-in traffic between 9 and 4 miles from touchdown (5 and 2 miles for T-6s).

6.1.1.6. Preventing aircraft from initiating the break with aircraft between "report high key" and low key.

6.1.2. Under most circumstances, preventive control and standard RSU radio terminology (see **Attachment 4**) should be adequate to safely control the pattern. However, improper actions by aircrew or RSU personnel do occur and may sometimes lead to pattern conflicts. In these situations, RSU personnel must intervene immediately, using whatever means necessary (including "plain English") to resolve the conflict.

6.2. Aircraft Control:

6.2.1. RSUs will control aircraft according to procedures in this chapter.

6.2.2. Local aircraft under tower control and transient aircraft will be controlled according to applicable Air Force and Federal Aviation Administration air traffic control publications. **Note:** Controllers must be aware that tower operations differ considerably from RSU procedures.

6.2.3. RSU controllers will not clear an aircraft for a low approach (less than 500 feet above ground level [AGL]) directly over a transient aircraft on landing roll or taxiing on the runway. Aircraft shall not be cleared for a low approach or restricted low approach directly over a transient aircraft that is in position and hold or departing.

6.2.4. RSU controllers will not authorize a landing aircraft to cross the threshold until a preceding transient aircraft clears the runway. With tower approval, Reduced Same Runway Separation (RSRS) may be applied between home station and non-home station AETC trainer type aircraft according to **Attachment 6**. In this instance, tower retains separation

responsibility and shall issue go around instructions to the trailing aircraft (including RSU controlled) as required.

6.2.5. RSU crews will maintain a separate traffic count for each RSU-controlled runway. Count one movement for each takeoff or landing. Count a touch-and-go landing or low approach as two events. Count all aircraft in formation as one aircraft.

6.2.6. RSU crews will use AETC Form 355 or equivalent, approved by the unit publishing manager, to record flight-following information, documentation of upgrade tours, recurrency and requalification, time in and time out of the facility, and comments on individual aircrew performance. Maintain AETC Form 355 or equivalent for 2 years. When documenting recurrency or requalification tours on AETC Form 355 or equivalent, both the instructor and trainee must log the tour in order to verify training.

6.3. Procedures at UFT and PIT Bases:

6.3.1. Each base will establish procedures to provide positive separation between RSU-controlled traffic and transient aircraft under tower or approach control. Publish guidance according to AFI 33-360.

6.3.2. Air traffic facilities will coordinate radar approaches to RSU-controlled runways as follows:

6.3.2.1. Do not integrate approaches under tower and radar control with RSU-controlled traffic unless direct communication is established between the RSU, tower, and radar facility.

6.3.2.2. To ensure proper sequencing of arriving radar traffic with RSU-controlled traffic, radar and RSU controllers will coordinate as follows:

6.3.2.2.1. At a specified position, the radar controller establishes initial contact with the RSU and provides identification, position, and type of approach of the aircraft under radar control. The RSU is told when the aircraft is 9 miles from touchdown (5 miles for T-6s). The RSU is also told when the aircraft is 4 miles from touchdown (2 miles for T-6s).

6.3.2.2.2. The RSU acknowledges each position report and issues appropriate traffic advisories and field information. In no case will a radar approach be continued closer than 3 miles from touchdown unless coordinated with the RSU controller.

6.3.2.2.3. During T-38 night straight-in approaches, only one coordination call from the tower or radar to the RSU is required. This call must be made no closer than 5 miles from touchdown and must include the frequency assigned to the aircraft nearest touchdown.

6.3.3. Straight-in aircraft will report 9 and 4 miles from touchdown (5 and 2 miles for T-6s). RSU controllers will clear aircraft requesting a straight-in not later than when the aircraft is 9 miles from touchdown (5 miles for T-6s). RSU crews will only allow aircraft to commence the break or depart high key with straight-in traffic between 9 and 4 miles (5 and 2 miles for T-6s) to facilitate pattern breakout training (pattern status allowing). Aircrews will not commence the final or base turn if closed or low key traffic was approved with an aircraft between 9 and 4 miles (5 and 2 miles for T-6s). Units will establish local procedures to accommodate cancellation of a straight-in clearance.

6.3.3.1. To facilitate pattern breakout training where the emergency landing pattern (ELP) is flown opposite direction to the overhead pattern, RSU crews may clear aircraft to break.

6.3.3.2. Aircrews will not commence the final turn if clearance was given with an aircraft between report high key and low key.

6.3.4. RSU controllers must evaluate each minimum fuel situation in light of existing conditions and determine the extent to which aircraft are given special handling. When a pilot declares minimum fuel, other approaches and landings may continue. However; if a traffic conflict exists or is anticipated, minimum fuel aircraft must be given landing priority. RSU controllers will acknowledge the initial minimum fuel call.

6.3.5. On arrival in the pattern, emergency aircraft will be given traffic priority. When emergency situations arise, controllers will not attempt to maintain the normal volume and pace of pattern operations. To maintain situational awareness on the emergency aircraft, consider any combination of the following: stop launch, restricted low approach, and straight through initial. Time permitting, review emergency procedures with the aircraft and coordinate actions with the SOF.

6.3.6. When an emergency aircraft in the VFR pattern requires airborne assistance, designate an aircraft with an instructor on board to fly as chase. When an aircraft is disabled on or near a runway, discontinue normal traffic pattern operations. Controllers will base subsequent control decisions on the status of the distressed aircraft. Airfield managers or their representatives are responsible for authorizing resumption of normal runway operations.

6.3.7. Control formations as a unit. However, after formation aircraft have split up, RSU controllers may apply RSRS criteria (See **Attachment 6**).

6.3.8. Procedures for RSU takeoff clearance are as follows:

6.3.8.1. Do not allow more than four aircraft on the runway in takeoff position at the same time. At night, do not allow more than one aircraft (or one element of two aircraft) on the runway at one time.

6.3.8.2. RSU controllers may authorize aircraft to line up and wait when takeoff clearance cannot be issued because of other traffic.

6.3.8.3. RSU controllers may authorize aircraft to line up and wait when restricted low approach traffic is on final. Controllers will not clear aircraft for takeoff until proper separation is ensured with restricted low approach aircraft.

6.3.9. Accomplish departure and arrival separation as specified in the AETC Supplement to AFI 13-204, Volume 3.

6.3.10. Procedures for anticipating separation are as follows:

6.3.10.1. Takeoff or landing clearance need not be withheld until prescribed separation exists if there is reasonable assurance that required separation will exist when the aircraft starts a takeoff roll or crosses the landing threshold. Landing clearance may be issued to a radar-controlled aircraft when the aircraft is 3 miles from touchdown even though a preceding aircraft has not crossed the landing threshold if there is reasonable assurance

that prescribed separation will exist when the radar-controlled aircraft crosses the threshold.

6.3.10.2. The RSU controller may not issue a clearance that requires a provisional or conditional phrase. Specific guidance, such as “abort” or “go-around,” should be used. (See **Attachment 4** for standard RSU phraseology.)

6.3.11. Do not allow instrument and straight-in approaches to proceed inside 4 miles (2 miles for T-6s) from the time a four-ship formation pitches until number four has initiated the turn to final.

6.3.12. Closed traffic procedures are as follows:

6.3.12.1. Aircraft will not normally be cleared for closed traffic or low key with another aircraft on initial before the break, with straight-in traffic between 9 and 4 miles (5 and 2 miles for T-6s), or with an aircraft between initial and halfway between high key and low key. **Note:** An aircraft may be cleared for closed traffic or low key if the aircraft at high key is orbiting.

6.3.12.1.1. To facilitate pattern breakout training where the ELP pattern is flown opposite direction to the overhead pattern, aircraft may request and be cleared for closed traffic with straight-in traffic between 9 and 4 miles (5 and 2 miles for T-6s), and with an aircraft between initial and halfway between high key and low key.

6.3.12.1.2. The words “for practice breakout” will be added to the end of the request for closed, the closed approved, and closed downwind radio calls. If a closed pattern was approved under these conditions, the aircrew will not commence the final turn.

6.3.12.2. Caution must be used when clearing closed traffic with two aircraft on departure leg. If there is a question as to which aircraft has requested a closed, the controller will not issue a clearance until the question is resolved.

6.3.13. Aircraft will not be cleared for high key with an aircraft in the high pattern.

6.3.14. When the aircrew reports or the controller directs a low approach, the aircraft will not touch down. During local flying operations when the aircrew is directed to make a restricted low approach, the aircraft will descend no lower than 500 feet AGL. (The controller may specify higher.) Aircraft making a restricted low approach with an aircraft in takeoff position must clear the runway, safety of flight permitting.

6.3.15. The RSU controller’s silence to the pilot’s “gear down” call is an implied clearance to land, which may be modified by oral communications.

6.3.16. RSU controllers will refrain from soliciting early turnoffs or instructing aircrews to clear the runway faster than normal.

6.3.17. RSU controllers may request T-6 aircrews to turn off strobe lights during hours of darkness while in the home-base traffic pattern.

Chapter 7

LOCAL AREA PROCEDURES

7.1. Terminal Instrument Procedures (TERPS). The airfield operations flight commander will provide TERPS service according to AFI 11-230, *Instrument Procedures,* for any procedure designed for instrument approach or departure of aircraft; that is, nonprecision and precision approaches and standard instrument departures.

7.2. Aircraft Traffic Patterns. Attachment 5 of this publication establishes home and auxiliary field traffic patterns for T-1, T-6, and T-38 aircraft. In addition, the following rules apply to these aircraft:

7.2.1. Aircraft departing under RSU control must remain in visual meteorological conditions until the departure control facility establishes radio and radar contact with the aircraft. Military assumes responsibility for separation of aircraft (MARSA) will apply until standard instrument flight rules (IFR) separation is established. Each base will also designate points at which aircraft normally terminate IFR service on arrival.

7.2.2. Aircraft of like type in the terminal area (not under radar or tower control) must maintain a specified airspeed on designated ground tracks and adhere to established altitudes.

7.2.3. The number of aircraft in the VFR traffic pattern is limited to 12 T-6s, 12 T-38s, or 10 T-1s. The night VFR traffic pattern for each aircraft is limited to 8 aircraft.

7.2.4. UFT aircraft may remain in formation in the traffic pattern unless the RSU controller or tower directs otherwise.

7.2.5. A common initial with opposite direction breaks for single runway operations will not be established. (Auxiliary fields are exempt.)

7.2.6. When weather prevents the use of established pattern breakout procedures, a restricted pattern may be flown if the following requirements are satisfied:

7.2.6.1. The existing ceiling is at least 500 feet above pattern altitude.

7.2.6.2. Pattern is entered only:

7.2.6.2.1. From initial takeoff.

7.2.6.2.2. Via a crosswind entry or closed from a parallel runway.

7.2.6.2.3. From a straight-in approach (if procedures are established to prevent a traffic conflict).

7.2.6.3. Traffic pattern is limited to eight aircraft.

7.2.6.4. Solo student sorties are prohibited.

7.2.7. Night overhead and visual straight-in approaches will not be flown simultaneously to the same runway. **Note:** Randolph AFB is exempt.

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 11-2, *Aircraft Rules and Procedures*, 19 January 2012

AFI 11-230, *Instrument Procedures*, 27 September 2013

AFI 33-360, *Publications and Forms Management*, 1 December 2015

AFMAN 33-363, *Management of Records*, 1 March 2008

AFMAN 91-201, *Explosives Safety Standards,* 21 March 2017

TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*, 15 June 2013

Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, 17 November 2008

Prescribed Forms

AETC Form 309, *RCS/RSU Crewmember Evaluation and Qualification Certificate*

AETC Form 355, *Runway Control Structure (RCS)/Runway Supervisory Unit (RSU) Log*

AETC Form 360, *Runway Control Structure (RCS)/Runway Supervisory Unit (RSU) Discrepancy Log*

AETC Form 393, *RCS/RSU Controller Record of Training*

AETC Form 1163, *RCS/RSU Supervisor's Critique*

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 4293, *Student Activity Record*

AF Form 4348, *USAF Aircrew Certifications*

AFTO Form 95, *Significant Historical Data*

Abbreviations and Acronyms

ADO—assistant director of operations

AGL—above ground level

AHC—aircraft handling characteristics

AOR—area of responsibility

APU—auxiliary power unit

ASR—airport surveillance radar

AT—additional training

CC—commander

CRM—cockpit/crew resource management

DO—director of operations

ELP—emergency landing pattern

ENJJPT—Euro-North Atlantic Treaty Organization (NATO) Joint Jet Pilot Training

FTS/CC—flying training squadron commander

FTW—flying training wing

IFR—instrument flight rules

IMT—information management tool

IP—instructor pilot

MARSA—Military assumes responsibility for separation of aircraft

NATO—North Atlantic Treaty Organization

nm—nautical mile

OG/CC—operations group commander

OGV—operations group standardization/evaluation

OJT—on-the-job training

PIT—pilot instructor training

RCS—runway control structure

RM—risk management

RSRS—reduced same runway separation

RSU—runway supervisory unit

RSUTO—RSU training officer

RSUTSO—RSU training and standardization officer

SOF—supervisor of flying

SQ/CC—squadron commander

TDY—temporary duty

TERPS—terminal instrument procedures

UFT—undergraduate flying training

VFR—visual flight rules

Attachment 2

RCS INSPECTION CHECKLIST

A2.1. Daily and Monthly Checks. The RCS facility officer will check the following items monthly at each RCS: (**Note:** The RCS daily opening checklist will incorporate the asterisked [*] items below.)

A2.1.1. **Exterior.** Check the following for proper operations and/or conditions:

A2.1.1.1. Power hookup, external wiring, and proper ground.

A2.1.1.2. Guides and mounts in place (in mobile units).

A2.1.1.3. Wind-measuring equipment.*

A2.1.1.4. Communications antennas.*

A2.1.1.5. Obstruction lights.*

A2.1.1.6. Flare warning signs.* (If flares are maintained)

A2.1.1.7. Portable toilet facility.

A2.1.1.8. RCS exterior, including floor support in mobile units.

A2.1.1.9. Auxiliary power unit operation or power transfer, if applicable.

A2.1.2. Air-Conditioner or Heater:

A2.1.2.1. Proper operation.*

A2.1.2.2. Filters.

A2.1.2.3. Duct condition.

A2.1.3. Radio Equipment:

A2.1.3.1. Equipment bay (visual check), as follows:

A2.1.3.1.1. Equipment secure in racks.

A2.1.3.1.2. Adequate cooling.

A2.1.3.1.3. Evidence of water leakage.

A2.1.3.1.4. Condition of wiring.

A2.1.3.2. Console, as follows:

A2.1.3.2.1. Equipment operational.*

A2.1.3.2.2. Switches properly labeled.*

A2.1.3.2.3. Microphones and headsets for the correct number and condition.*

A2.1.3.3. Recorders checked for each radio and/or frequency to ensure they are being recorded.*

A2.1.4. RCS Interior:

A2.1.4.1. General condition and cleanliness.*

A2.1.4.2. Windows clean and no faults.*

A2.1.4.3. Window shade operation and condition.

A2.1.4.4. Evidence of water leakage.*

A2.1.4.5. Proper flare storage. (If flares are maintained)

A2.1.4.6. Telephone and hotline/speed dial operation.*

A2.1.4.7. Wind equipment operational.*

A2.1.4.8. BAK-15 Barrier (operations check according to paragraph **2.4.6**).

A2.1.4.9. Flares.* (If maintained)

A2.1.4.10. Publications and forms.*

A2.1.4.11. Light gun.*

A2.1.4.12. Binoculars, if maintained in the RCS.*

A2.1.4.13. Fire extinguishers.*

A2.1.4.14. Chairs.

A2.2. Recording Discrepancies. Discrepancies will be recorded on the RCS's AETC Form 360 and reported to the agency responsible for corrective action and/or RCS facility officer (as specified locally).

Attachment 3

SYLLABUS REQUIREMENTS FOR RSU CONTROLLER CANDIDATES

A3.1. Training Requirements. The following minimum requirements will be included in the local syllabus of instruction to upgrade RSU controller candidates: (**Note:** Additional training (AT) or procedures peculiar to the local area will be added as necessary.)

A3.1.1. Trainees must complete a minimum of nine daylight OJT tours within 45 calendar days. (**Exception:** 560 FTS controllers only require 5 daylight OJT tours within 45 calendar days. OG/CC may reduce this requirement to a minimum of three tours.) The objective is to schedule tours to ensure continuity of training. Trainees who do not complete the training within 45 days are reviewed by the SQ/CC, who determines their suitability for continued training. If trainees are retained, the SQ/CC must make recommendations for AT. Circumstances and AT requirements are documented in the individual's training record. Before controlling traffic at night, a minimum of one night OJT tour (for a minimum of 2 hours) is required (paragraph A3.5). **Note:** The 560 FTS controllers are exempt from night requirements.

A3.1.2. Complete four daylight tours before accomplishing a night tour.

A3.1.3. Day tours and evaluations must be completed during periods when the status of flying permits an overhead pattern. The trainee is normally limited to one upgrade tour per day. Although highly discouraged, an OG/CC may authorize an additional tour based on unique training circumstances. However, do not conduct such a practice on a routine basis.

A3.1.4. The trainee will receive OJT by actually controlling traffic while under direct supervision of an instructor controller. The instructor retains responsibility for a safe traffic pattern and will take control of the pattern if the trainee does not adequately respond to the situation.

A3.1.5. Documentation showing the trainee's progress must be maintained to ensure completion of all syllabus requirements before an evaluation.

A3.1.6. Controllers transferred intracommand will receive sufficient training to ensure their familiarity with local operations.

A3.1.7. Additional manning in the RCS during OJT tours will not be used as a substitute for normal manning requirements.

A3.2. Orientation. The trainee will:

A3.2.1. Receive a briefing from the RSUTSO or RSUTO about the controller training program and the RSU's role in the student training environment.

A3.2.2. Study the appropriate publications concerning RSU operations.

A3.2.3. If possible visit the tower and terminal radar facility to observe terminal activities and the interface with RSU operations.

A3.3. OJT Tour 1. The trainee is briefed on and observes the crew briefing, RCS and APU preflight checks, and crew changeover procedures. He or she will practice controlling VFR traffic.

A3.4. OJT Tours 2 Through 9. The trainee:

A3.4.1. Practices subjects previously introduced, to include procedures for beginning and terminating RSU operations.

A3.4.2. Practices controlling VFR traffic.

A3.4.3. Is briefed on or practices, and has a thorough understanding of the following:

A3.4.3.1. Supervision, coordination, and discipline of the RSU crew.

A3.4.3.2. Assuming and relinquishing runway control.

A3.4.3.3. Coordination with other air traffic control agencies and the SOF.

A3.4.3.4. Local landmarks, techniques, and guidance to safely facilitate normal traffic flow while maintaining specified separation standards and sequencing.

A3.4.3.5. Traffic pattern priorities and breakouts.

A3.4.3.6. Transient and civilian aircraft procedures.

A3.4.3.7. Runway change procedures.

A3.4.3.8. Reporting RCS discrepancies.

A3.4.3.9. Control of ground aborts.

A3.4.3.10. Control of emergency aircraft, including aircraft chase procedures.

A3.4.3.11. Overdue aircraft.

A3.4.3.12. Lost student assistance.

A3.4.3.13. Single and dual runway operations.

A3.4.3.14. Situations that could result in a potential stall (tight downwinds, slow finals, etc.) and controller actions to prevent or correct the situation.

A3.4.3.15. Specific guidance on when to issue go-around instructions.

A3.4.3.16. Flying status changes.

A3.4.3.17. Weather recall and diversion procedures.

A3.4.3.18. Local contingency plans (Broken Arrow, SCATANA, etc.).

A3.4.3.19. RCS radio and power failure.

A3.4.3.20. RSU administrative duties.

A3.4.3.21. Radio terminology.

A3.4.3.22. Local potential traffic conflicts (final turn versus straight-in, etc.).

A3.4.3.23. Monitoring of and responsibility for solo traffic.

A3.4.3.24. Recovery of radio-out aircraft.

A3.4.3.25. If flares are used, handling and storage of flare pistols and flares.

A3.4.3.26. Use of AETC Form 355.

A3.5. OJT Tour 10 (2 Hours Minimum at Night). This lesson may be accomplished anytime during scheduled night flying--after completing four OJT tours and before assuming unsupervised controller duties at night. Completion of this tour is desired, but is not a prerequisite for the controller's initial evaluation.

A3.5.1. Brief the trainee on the following procedures as they differ from daytime procedures:

A3.5.1.1. Traffic patterns.

A3.5.1.2. Common pilot errors.

A3.5.1.3. Separation standards.

A3.5.1.4. Emergency procedures.

A3.5.1.5. RCS lighting.

A3.5.1.6. RSU duties and responsibilities.

A3.5.2. The trainee practices controlling night traffic, as applicable.

A3.6. OJT Tour 11 (2 Hours Minimum at an Auxiliary Field). This lesson must be accomplished only if aircraft flown by the trainee uses an auxiliary field. The tour may be accomplished anytime after the trainee completes four OJT tours, and it is a prerequisite to assuming unsupervised controller duties at the auxiliary field. Completion of this tour is desired, but not a prerequisite for the controller's initial evaluation.

A3.6.1. Brief the trainee on procedures at the auxiliary field as they differ from those at the home field.

A3.6.2. The trainee will practice controlling traffic at the auxiliary field.

A3.7. AHC/ELP Certification. Controllers may upgrade to AHC/ELP controller after a minimum of six solo tours. **Exception:** Previous controllers may upgrade to AHC/ELP controller during requalification training. Before performing AHC/ELP controller duties, trainees will receive a briefing from the RSUTSO or RSUTO, an AHC/ELP pilot. After the training is accomplished, document certification on an AF Form 4348 and on the Letter of Xs.

Attachment 4

STANDARD RSU RADIO TERMINOLOGY

A4.1. Overview. Tables A4.1 through **A4.5** contain standard RSU radio terminology. This terminology is not intended to cover every situation or restrict the use of additional terms. When communicating with aircrews, RSU controllers are expected to use good judgment and have the flexibility to use concise, common-sense, directive language appropriate for the situation. They must use timely, clear, concise, standard terminology that communicates the same meaning to all AETC crews.

Table A4.1. Standard RSU Terminology Used To Identify Aircraft Positions.

ITEM	A	B
	Aircraft Position	**Standard RSU Terminology**
1	On the taxiway or run-up area before being cleared on or across the active runway	"Holding for the active . . . ." (may be prefaced with relative position; for example, No. 1, 2, or 3)
2	On the taxiway or taxiing onto the runway after being cleared on	"Taking the active . . . ." (may be prefaced with relative position; for example, No. 1, 2, or 3)
3	In departure position before brake release	"Departure position . . . ."
4	On runway after brake release for departure	"Departure roll . . . ."
5	Airborne after departure, but not yet started to turn out of traffic	"Departure leg . . . ."
6	On crosswind after completing turn from takeoff leg	"Crosswind . . . ."
7	Established between 9 and 4 miles (or 5 and 2 miles for T-6s) on straight-in ground track	"Straight-in . . . ."
8	In pull-up to closed downwind	"Pulling closed . . . ."
9	On inside downwind after closed pattern or break turn from initial	"Inside downwind . . . ."
10	On downwind after completing the turn from a pattern or VFR entry leg or crosswind.	"Outside downwind . . . ."
11	Initiating final turn	"Rolling off the perch. . . ."
12	After established in final turn	"Final turn . . . ."
13	After initiating rollout to final approach	"Rolling out on final . . . ." (Also take into account overshooting final turns.)

14	After wings level on final approach	"Final . . . ."
15	Approaching overrun	"Short final . . . ."
16	Over the overrun on final approach	"Overrun . . . ."
17	After starting round out or flare for landing	"Flare . . . ."
18	Landing roll	"Landing roll . . . ."
19	Aircraft on go-around from final turn	"On the go from final turn . . . ." (normally used to inform pilot of other traffic or aircraft configuration)
20	Aircraft on go-around from final approach	"On the go from final approach . . . ." (normally used to inform pilot of other traffic or aircraft configuration)
21	Aircraft on go-around displaced from the runway inside the pattern	"Offset . . . ."
22	Aircraft turning initial, but not yet wings level.	"Turning initial . . . ."
23	On initial, but not yet rolling into the break	"Initial . . . ."
24	Initiating bank for break until wings level on downwind	"In the break . . . ."

Table A4.2. Terms Unique to Rectangular Patterns.

ITEM	**A**	**B**
	Aircraft Position	**Standard RSU Terminology**
1	Initiating turn to base	"Starting base turn . . . ."
2	After established in base turn	"Base turn . . . ."
3	After initiating rollout on base	"Rolling out on base . . . ."
4	After wings level on base	"Base . . . ."
5	Aircraft on go-around from base	"Aircraft on the go from base . . . ." (normally used to inform pilot of other traffic)
Note: This table is in addition to the terms listed in Table A4.1.		

Table A4.3. Terms Unique to ELPs.

ITEM	A	B
	Aircraft Position	**Standard RSU Terminology**
1	Departing high key	"High key to low key . . . ."
2	Departing low key	"Low key to base key . . . ."
3	Departing base key	"Base key to final . . . ."
4	After wings level on final approach	"ELP final . . . ."
Note: This table is in addition to the terms listed in Table A4.1.		

Table A4.4. Standard RSU Directives and Pilot Response.

ITEM	A	B
	RSU Directive	**Pilot Response**
1	"Hold short"	"CALL SIGN, holding short"
2	"Line up and wait"	"CALL SIGN, line up and wait"
3	"Cleared for takeoff"	"CALL SIGN, cleared for takeoff"
4	"Abort"	Discontinues takeoff (if appropriate)
5	"Go-around"	Discontinues approach or landing and initiates procedures to become or remain airborne
6	"Standby"	Continues straight ahead or turns crosswind
7	"Continue straight ahead"	Continues straight ahead
8	"Say range"	States distance from the threshold
9	"Monitor altitude"	Climbs or descends as necessary to comply with local altitude restrictions (if able)
10	"Monitor ground-track"	Turns aircraft to maintain published ground track (if able)
11	"Lower nose"	Decreases pitch attitude
12	"Roll wings level" or "Roll out"	Rolls wings to level flight
13	"Disregard ground track"	Clears the flightpath. Does not exceed aircraft performance capabilities in order to maintain pattern ground track

14	"Breakout"	Leaves traffic pattern as specified in local pattern directives
15	"Cleared low approach"	Continues approach, but does not touch down
16	"Cleared restricted low approach"	Continues approach, but does not descend below assigned altitude

Table A4.5. Standard Aircraft Request and/or Position Report and RSU Response.

ITEM	**A**	**B**
	Aircraft Request and/or Position Report	**RSU Response**
1	"CALL SIGN, request closed (for practice breakout)" ("right or left" as required at auxiliary field)	"Closed approved (for practice breakout)" ("right or left" as appropriate at auxiliary field) or "negative closed"
2	"CALL SIGN, closed downwind (for practice breakout)"	(normally no response)
3	"CALL SIGN, gear down"	
4	"CALL SIGN, (position, as defined in local area procedures), request straight-in"	"Call 9/5 miles" (or as defined in local area procedures)
5	"CALL SIGN, 9/5 miles"	"Cleared straight-in, negative straight-in" (or as defined in local area procedures)
6	"CALL SIGN, 4/2 miles, gear down"	(normally no response)
7	"CALL SIGN, descending outside downwind"	
8	"CALL SIGN, (position) breaking out"	
9	"CALL SIGN, initial" (include fuel remaining if planning a full stop landing)	(normally no response unless an initial pattern entry)
10	"CALL SIGN, initial, request right or left break" (auxiliary field)	"Right or left break approved" (auxiliary field)
11	"CALL SIGN, initial, request high key"	"Report high key"
12	"CALL SIGN, initial, request break to low key"	"Report low key"
13	"CALL SIGN, high key"	"Report low key"
14	"CALL SIGN, low key, gear down"	(normally no response)
15	"CALL SIGN, request low key"	"Low key approved"

16	"CALL SIGN, request high key"	"Report one minute"
17	"CALL SIGN, one minute"	"Report high key"
18	"CALL SIGN, request break for practice breakout"	"Cleared to break for practice breakout"

A4.2. Issuing Instructions. When issuing instructions, RSU controllers will normally refer to the aircraft's position rather than its call sign. RSU controllers will identify the source of the transmission when using a guard channel; for example, "Final, go-around, Westwind on guard." However, RSU controllers or observers do not normally use terms such as "number one" or "number two" to identify a pattern position because pilots to whom instructions are issued may not know their relative position. To prevent confusion between pattern position and formation position, identify aircraft in formation by call sign.

Attachment 5

TRAFFIC PATTERNS FOR HOME AND AUXILIARY FIELDS

A5.1. T-6 and T-38 Aircraft:

A5.1.1. The T-6 traffic pattern altitude is normally 1,000 feet AGL. The T-38 traffic pattern altitude is normally 1,500 feet AGL.

A5.1.2. Establish an initial approach of 3 to 5 nautical mile (nm), measured from the runway threshold. Radar-controlled aircraft may enter the initial from either side if the entry point is located outside of VFR traffic.

A5.1.3. Establish a VFR entry and reentry leg that is entered from a turn from one side only. Aircraft entering on the VFR entry leg must be wings level on the entry leg at least 1 nm before entering the pattern or converging with other aircraft and must give way to aircraft established in pattern.

A5.1.4. A common entry leg may be used for both VFR and radar sequence entries if right-of-way priorities are established where aircraft converge and provisions are made for aircraft forced to give way. Aircraft must be wings level at least 1 nm before converging points and must converge at a 45-degree angle in level flight to facilitate clearing.

A5.1.5. Units will establish pattern right-of-way priorities, breakout, and go-around procedures for aircraft that converge onto a common ground track. (**Note:** Units will develop local guidance to resolve conflicts between straight-in and final turn aircraft.) An aircraft:

A5.1.5.1. On a 90- or 45-to-initial that is giving way to aircraft on initial will climb a minimum of 500 feet and reenter at the VFR entry point, request radar initial, or fly straight through on an offset initial, obtaining spacing and letting down to traffic pattern altitude during the turn to outside downwind.

A5.1.5.2. Giving way on VFR entry leg will climb a minimum of 500 feet and reenter in the VFR entry point.

A5.1.5.3. On a straight-in approach that perceives a conflict with an aircraft turning final will discontinue the approach and offset the ground track away from the final turn.

A5.1.5.4. Breaking out from inside or outside downwind will climb a minimum of 500 feet and reenter at the VFR entry point or request radar initial.

A5.1.5.5. Breaking out from low closed downwind will maintain 500 feet below pattern altitude and reenter at the VFR entry point or request radar initial.

A5.1.5.6. Breaking out of the traffic pattern will advise the controlling agency by position.

A5.1.6. Pattern spacing will normally be obtained by adjusting the position of the crosswind leg.

A5.1.7. Radar service may be terminated before actual pattern entry if the approach control facility establishes aircraft separation and sequencing before termination point and a prescribed ground track and airspeed are flown from termination point to the pattern.

A5.1.8. Weather minimums must ensure that VFR conditions, including required cloud clearance and visibility, can be maintained during all portions of the pattern.

A5.1.9. Units will develop procedures to permit pitchouts and closed patterns opposite the normal direction of break at auxiliary fields. Establish go-around, breakout, and reentry procedures to prevent conflicts.

A5.1.10. Establish runway change procedures to ensure an orderly transition to the new pattern.

A5.2. T-1 Aircraft:

A5.2.1. **Pattern Altitude.** The T-1 traffic pattern and outside downwind altitude is normally 1,500 feet AGL; the closed pattern altitude is normally 1,000 feet AGL.

A5.2.2. **Initial Approach.** Establish an initial approach of 3 to 5 nm miles, measured from the runway threshold. Radar-controlled aircraft may enter initial from either side if the entry point is located outside of VFR traffic.

A5.2.3. **VFR Entry and Reentry.** Establish a VFR entry and reentry leg that is entered from a turn from one side only. Aircraft entering on the VFR entry leg must be wings level on the entry leg at least 1 nm before entering the pattern or converging with other aircraft and must give way to aircraft established in pattern.

A5.2.4. **Common Entry Leg.** A common entry leg may be used for both VFR and radar sequence entries if right-of-way priorities are established where aircraft converge and provisions are made for aircraft forced to give way. Aircraft must be wings level at least 1 nm before converging points and must converge at a 45-degree angle in level flight to facilitate clearing.

A5.2.5. **Right-of-Way Priorities.** Units will establish pattern right-of-way priorities and breakout procedures for aircraft that converge onto a common ground track. An aircraft:

A5.2.5.1. In the overhead that is giving way to aircraft on final approach will climb 500 feet and reenter at the VFR entry point.

A5.2.5.2. In the closed pattern that is giving way to aircraft on final approach will maintain pattern altitude and reenter at the VFR entry point.

A5.2.5.3. That is giving way on VFR entry leg will climb 500 feet and reenter at the VFR entry point.

A5.2.5.4. On a straight-in approach that perceives a conflict with an aircraft turning final will discontinue the approach and offset the ground track away from the final turn.

A5.2.6. **Pattern Spacing.** The crew will normally obtain pattern spacing by adjusting the position of the crosswind leg.

A5.2.7. **Radar Service.** Radar service may be terminated before actual pattern entry if the approach control facility establishes aircraft separation and sequencing before termination point and a prescribed ground track and airspeed are flown from the termination point to the pattern.

A5.2.8. **Weather Minimums.** Weather minimums must ensure that VFR conditions, including required cloud clearance and visibility, are maintained during all portions of the pattern.

A5.2.9. **Runway Change Procedures.** Units must establish runway change procedures to ensure an orderly transition to the new pattern.

Attachment 6

REDUCED SAME RUNWAY SEPARATION (RSRS) FOR TRAINER-TYPE AIRCRAFT OPERATIONS

A6.1. RSRS Authority. RSRS operations on RSU controlled runways differ slightly from RSRS operations on tower controlled runways. FAA Order JO 7110.65 and AFI 13-204, Volume 3, *Airfield Operations Procedures and Programs* have delegated authority to reduce same runway separation standards for military aircraft to Major Air Command, Directors of Operations (MAJCOM/DOs). AFI 13-204, Volume 3 provides guidance for tower controllers and this AETCI provides guidance for RSU controllers. When applying RSRS, RSU controllers must be able to determine distance between aircraft using suitable landmarks (i.e., distance remaining markers, intersections, etc.).

A6.2. Similar Trainer-Type Aircraft Operations:

A6.2.1. Similar trainer-type RSRS may only be applied using alternate runway side procedures. Similar trainer-type aircraft are defined as aircraft with the same airframe; for example, T-38 to T-38 and T-6 to T-6.

A6.2.2. When alternate runway side procedures are used; similar trainer type RSRS for T-6 and T-38 patterns is 3,000 feet or when the preceding aircraft is airborne. When alternate runway side procedures are not used, the minimum RSRS is 6,000 feet.

A6.2.3. T-1A aircraft are not authorized to use alternate runway side procedures. T-1A to T-1A minimum separation is 6,000 feet or when the preceding aircraft is airborne for all type landings.

A6.2.4. The use of alternate runway side procedures is an aircrew responsibility and must be addressed in local operating procedures.

A6.2.5. Arrivals. An RSRS of 3,000-feet may be applied between a formation landing and a subsequent single aircraft (of a similar type) if both formation aircraft are positioned on the cold (exit) side of the runway and the arriving aircraft is landing on the hot side of the runway. Ensure 6,000 feet RSRS in front of a formation landing.

A6.2.6. Departures. Prior to launching any departure, ensure a clear hot side of the runway. Prior to launching any formation accomplishing a formation takeoff, ensure the runway is clear.

A6.2.7. The OG/CC may authorize RSRS during wet runway operations based on local surface conditions. Units will document wet runway RSRS procedures in their supplement to this instruction.

A6.3. Dissimilar Trainer-Type Aircraft Operations. Minimum separation for dissimilar trainer-type aircraft is 6,000 feet.

A6.4. Night Operations. During night operations, 6,000 feet is the minimum separation for all aircraft types.