

**BY ORDER OF THE COMMANDER  
AIR COMBAT COMMAND**

**AIR COMBAT COMMAND MANUAL  
11-2RC-135, VOLUME 3**



**29 JANUARY 2025**

***Flying Operations***

**RC/TC/WC-135—OPERATIONS  
PROCEDURES**

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This volume implements AFMAN 11-202, Volume 3, *Flight Operations*. It establishes the minimum Air Force standards for operations while performing duties in the RC/TC/WC-135. It applies to all RC/TC/WC-135 units, Regular Air Force, Air National Guard, and Air Force Reserve personnel who operate RC/TC/WC-135 aircraft. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. The 55 Wing (55WG) and Numbered Air Forces (NAF) will forward proposed supplements to this volume to Air Combat Command (ACC), Airborne Reconnaissance, and Surveillance Operations (ACC/A3CR) for approval. Copies of 55 WG and NAF-level supplements, after approved and published, will be provided by the issuing, ACC/A3CR, NAF, National Guard Bureau (NGB) and Air Force Reserve Command offices of primary responsibility. Field units below ACC/NAF level will forward copies of their supplements to this publication to ACC/NAF OPR for post publication review. Keep supplements current by complying with Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures*. The authorities to waive wing or unit level requirements in this publication are identified with a Tier (“T-2 or T-3”) number following the compliance statement. See DAFMAN 90-161, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor’s commander for non-tiered compliance items. The use of the name or mark of any

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## Chapter 1

### GENERAL INFORMATION

#### 1.1. Roles and Responsibilities.

1.1.1. This ACCMAN provides guidelines for RC/TC/WC-135 operations and applies to aircrews and all management levels concerned with operation of the RC/TC/WC-135. The annotation “C-135” in this document applies to all RC/TC/WC-135. It is both a compilation of information from aircraft flight manuals, flight information publications (FLIP), and Air Force (AF) directives, as well as an original source document for many areas. Basic source directives have precedence in the case of any conflicts, revisions, and matters of interpretation.

1.1.2. Air Combat Command Director of Operations (ACC/A3) is the agency responsible for the administration for this manual.

1.1.3. Provide Air Combat Command Standardization and Evaluations Branch (ACC/A3TV), a copy of approved supplements to this manual. Copies will be current and available to planning staffs from headquarters (HQ) to aircrew level.

#### 1.2. Deviations. Do not deviate from the policies and guidance in this ACCMAN under normal circumstances. **Exceptions:**

1.2.1. For safety.

1.2.2. When beyond Command and Control (C2) communications capability and it is necessary to protect the crew or aircraft from a situation not covered by this ACCMAN, the Pilot in Command (PIC) has ultimate authority and responsibility for the course of action to be taken. Report all deviations or exceptions without waiver through channels to the OPR and Office of Coordinating Responsibility (OCR).

1.2.3. When a controlling source publication changes, that publication takes precedence until the change is incorporated herein. After a change is made to a controlling source, a change to this ACCMAN will be distributed in a timely manner.

**1.3. Waivers.** Waiver authority is the ACC/A3, or equivalent, exercising tactical control (TACON) unless delegated lower in this ACCMAN. Waiver requests for training missions under ACC administrative control (ADCON) will be submitted through channels to Air Combat Command, Command and Control, Intelligence, Surveillance and Reconnaissance Division (ACC/A3C). Waivers required for exercises and operational missions involving aircraft from more than one unit or command will be coordinated with other participants to ensure standardization. In all cases, waiver approval and coordination should be published in the operations order (OPORD), Concept of Operations (CONOP), or operations plan (OPLAN).

## Chapter 2

### COMMAND AND CONTROL (C2)

**2.1. Commander Authority.** Steady state C-135 forces are OPCON to the AF and ADCON to ACC unless an approved order transfers OPCON and/or TACON to a designated Combatant Command.

**2.2. Pilot in Command (PIC) Responsibility and Authority.** A PIC is designated for all flights on the flight authorizations IAW DAFMAN 11-401, *Aviation Management*. PICs are:

2.2.1. In command of all persons aboard the aircraft.

2.2.2. Responsible for the welfare of the crew and the safe accomplishment of the mission.

2.2.3. Vested with the authority necessary to manage crew resources to accomplish the mission and will make decisions not specifically assigned to higher authority.

2.2.4. Final aircraft and aircrew authority to request and accept waivers to accomplish the authorized flight mission.

2.2.5. Responsible for interaction between the aircrew and the C2 agency or the applicable support detachment. Any factor that may affect mission accomplishment, or when transiting a stop without a support agency, the PIC will ensure necessary mission information is placed into the C2 system by the most expeditious means available. The PIC will establish a point of contact with the appropriate C2 agency or support detachment prior to entering crew rest.

2.2.6. If the PIC refuses a mission for safety reasons, the aircraft will not depart until the conditions have been corrected, improved, or waived by the ACC/A3 or equivalent, exercising TACON unless delegated lower.

## Chapter 3

### CREW COMPLEMENT AND MANAGEMENT

#### 3.1. Aircrew Qualification.

3.1.1. Primary crewmembers, or those occupying a primary position during flight, must be qualified or in training for qualification (e.g., Pre-Pilot Upgrade Program (Pre-PUP)) for that crew position. The crewmember must be under the supervision of an instructor or flight examiner if non-current or in training. If conducting student training on operational missions, qualified crewmembers must be able to take the student's place and assume their duties in the event of an emergency or operational necessity. **(T-3) Exception:** Pilot Senior Staff Members who have completed the Senior Staff Course (A004) may occupy either pilot seat under direct Instructor Pilot (IP) supervision.

3.1.2. Crewmembers undergoing difference training between C-135 series can credit events for continuation training (CT) provided their qualification is current. If the crewmember will not maintain multiple qualifications, difference training cannot be credited toward CT.

**3.2. Crew Manning.** The minimum crew required for flight is IAW the 1C-135(RC)(I)-1. An IP with an unqualified pilot enrolled in a formal course of training can satisfy the two-pilot requirement. Flight Duty Period (FDP) that requires augmentation are defined in AFMAN 11-202V3\_ACCSUP, *Flight Operations*.

3.2.1. Augmentation: C-135s require an extra AC and navigator to be considered augmented. The 24-hour maximum FDP applies to the whole crew whenever the flight deck is augmented.

3.2.2. Mission Systems Operations In-Flight. The minimum crew required to operationally employ the mission system for each C-135 Mission Design Series (MDS) is IAW **Table 3.1** and the classified Crew Manning Letter (CML), which lists additional restrictions and Cryptologic Mission Compartment (CMC) requirements.

3.2.2.1. The waiver authority for the minimum crew required in **Table 3.1** is the Squadron Commander (SQ/CC), Detachment Commander (DETCO), or Air Force Technical Applications Center Det 1 Commander (AFTAC/CC) or Deployed Commander. If the minimum number is reduced, the remaining crewmember should be experienced IAW ACCMAN 11-2RC-135 Volume 1, *RC/WC/TC-135—Aircrew Training*. Positions with 1 required cannot be eliminated.

3.2.2.2. The waiver authority for the CML is the Operations Group Commander (OG/CC), or appropriate Expeditionary Operations Group Commander (EOG/CC) or O-6 with EOG/CC authority unless identified otherwise IAW applicable USSIDs, approved CML, or aircraft specific CONOPs.

**Table 3.1. Minimum Mission Crew Manning.**

	Rivet Joint Mission System <sup>1</sup>	Cobra Ball Mission System <sup>1</sup>	Combat Sent Mission System <sup>1</sup>	Constant Phoenix Mission System
TC	1	1	1	N/A
STP Raven	N/A	N/A	1	N/A
Manual Raven	N/A	N/A	1	N/A
Raven 1/2	N/A	1	N/A	N/A
Raven 3	N/A	1	N/A	N/A
AMS	1	N/A	N/A	N/A
ASE1	1	1	1	N/A
ASE2	N/A	2 <sup>2</sup>	N/A	N/A
ASE3	1	N/A	2 <sup>2</sup>	N/A
ASE5	2 <sup>2</sup>	N/A	N/A	N/A
SEO	N/A	N/A	N/A	2
<b>Notes:</b>	<p>1. Additional CMC requirements found in classified CMLs and not required on training sorties.</p> <p>2. An Instructor Airborne Systems Engineer (ASE) can sit primary with the second ASE receiving CT, baseline training, or regaining currency as long as they are qualified, not in supervised status, and on a training mission.</p>			

**3.3. Mission Essential Personnel (MEP).** MEP approval is IAW DAFMAN 11-401 Wing Supplement. MEPs may be seated on the flight deck or crew compartment during takeoff and landing with the concurrence of the PIC. MEPs must occupy a seat certified for takeoff and landing and wear safety belts/harnesses.

**3.4. Orientation, Incentive and Familiarization Flights.** Orientation, incentive, and familiarization flights will be flown IAW DAFMAN 11-401. The PIC will be responsible for the safe transportation of the passengers. The PIC or designated individual will brief the applicable sections of the passenger briefing guide.

**3.5. Crew Rest and Ground Time.** The PIC will determine ground time and crew rest IAW AFMAN 11-202V3 and mission requirements.

**3.6. Transition Duty Day.** Transition duty day period applies only to pilot and navigator aircrew and is normally 12 hours. At PIC discretion, transition duty day may be extended to no more than 16 hours, regardless of augmentation.

**3.7. Interference with Flight Operations.** Aircrew may use personal items such as food containers, approved electronic devices (to include Electronic Flight Bags (EFBs)), mission

materials and reading materials at their duty stations provided their use does not distract them from performing their assigned duties or disrupt either interphone or Air Traffic Control (ATC) communications.

3.7.1. PICs will ensure unobstructed cockpit vision exists at all times. **Exception:** “Eyebrow” windows may be curtained during cruise. Additionally, they will ensure all flight deck aircrew have a clear view of all flight instrumentation and both pilots have unimpeded access to flight controls.

3.7.2. Tactical Coordinators (TCs) and Airborne Mission Supervisors (AMSs) will ensure all recon compartment aircrew have unimpeded access to their duty stations and mission equipment while on watch as required to accomplish the mission.

**3.8. Foreign Object Debris (FOD) Prevention.** Each aircrew member will account for all issued and personal flight gear while on the flightline pre/post mission and during flight operations. Aircrew will immediately report loss or suspected loss of items to compartment lead or PIC.

3.8.1. Crew members will ensure that they do not wear any items that are likely to become FOD hazards. This includes rings, scarves, wigs, hairpieces, earrings and ornaments.

3.8.2. **Exception:** Plain elastic hair fasteners, clips and/or securable barrettes may be worn as needed, provided they do not interfere with the wear of headsets or donning of oxygen equipment.

## Chapter 4

### MISSION PLANNING

**4.1. Mission Development/Planning.** The Squadron Operations Officer (SQ/DO) or Detachment Operations Officer (DETDO), if applicable, will actively direct the execution of the unit's flying schedule. The SQ/DO will ensure that all operations personnel provide crews with the requisite support to plan and execute mission. The SQ/DO will ensure crews/mission planners have no barriers to mission planning and ensure that every mission is thoroughly planned, briefed, executed, and debriefed, as applicable. The PIC has overall responsibility for mission material accuracy and review.

4.1.1. Mission planning can be accomplished the same day as the flight or conducted the day prior depending on the profile and complexity. The Mission Commander (MC) or PIC will ensure adequate mission planning time is made available for same day sortie mission planning.

4.1.2. The MC or PIC is the overall lead for mission planning. The TC and AMS have responsibility for mission crew mission planning for their compartments and will ensure close coordination with the MC or PIC.

4.1.3. Crew Briefing. The PIC will ensure all crewmembers flying the sortie are briefed applicable information IAW the 55th OG Briefing Certificate or equivalent. All crewmembers flying the mission will attend unless excused by the PIC coordinated through the compartment lead.

4.1.4. The mission may be re-briefed at the PIC's discretion if warranted based on profile changes or delays between mission planning and sortie execution.

**4.2. Step Briefing.** All crewmembers flying the mission will attend unless excused by SQ/DO, Operations Supervisor or PIC.

**4.3. Risk Management (RM).** RM will be practiced throughout daily flight operations. The PIC and Operations Supervisors will ensure a risk assessment is completed for every sortie using the 55 WG SEF RM template or a locally developed RM sheet for operational missions. This template can be found on the EFB. The risk assessment may be filled out via paper or digitally (digital preferred).

**4.4. Mission Debrief.** Training debriefs will be conducted at the discretion of the MC or PIC and compartment leads. Debriefs will be led by the MC or PIC. Operational mission debriefs are as directed by the SQ/DO unless delegated. The maintenance debriefs will be conducted as soon as practical after engine shutdown. Attendance at the maintenance debrief is as directed by squadron policy.

## Chapter 5

### OPERATING RESTRICTIONS

**5.1. Operating Guidance.** This chapter lists the equipment, systems and flight maneuvers considered essential for C-135 missions. The restrictions apply at all times unless specified.

5.1.1. Final responsibility regarding equipment, systems, or flight maneuvers required for a mission, rests with the PIC. All units operating C-135 aircraft will comply with the appropriate 55th Operations Group Commander (55 OG/CC) approved Minimum Equipment List.

5.1.2. The OG/CC, or appropriate EOG/CC or O-6 with EOG/CC authority, delegated no lower than SQ/CC or SQ/DETCO, is the waiver authority to taxi with a Runway Condition Reading (RCR) less than 8 reported for the parking ramp, taxiways and runway.

5.1.3. Maximum crosswind for takeoff and landing during non-Emergency War Order is 25 knots (kts). SQ/CC or DETCO may authorize takeoff or recovery of aircraft greater than 25 kts not to exceed maximum flight manual limitations.

5.1.4. SQ/CC or DETCO may authorize using headwind advantages to compute takeoff performance.

**5.2. Takeoff Restrictions:** C-135 aircraft must have takeoff weather of 1600 ft (500 m) Runway Visual Range (RVR). If RVR is 1000 ft to 1600 ft (300m to 500m), the mission must be higher headquarters (HHQ) directed, the runway must have operating centerline lights, visible runway centerline markings, and two operative RVR reporting systems, and takeoff approved by the SQ/CC, DETCO, or designated representative.

**5.3. Performance Requirements.** During mission planning, the flight crew will determine a gross weight that ensures C-135 performance will meet or exceed departure requirements. In the event performance capability cannot meet the climb gradient at the desired gross weight, either defuel, use other applicable methods found in AFMAN 11-202V3, or delay until more favorable conditions exist.

5.3.1. PICs must plan a contingency procedure to account for one engine inoperative on takeoff. Acceptable methods are IAW AFMAN 11-202V3.

5.3.2. Special Departure Procedure (SDP) - contingency planning only.

5.3.3. 48 ft/NM Option. If C-135 aircraft are unable to meet the published climb gradient or 200 ft/ NM with one engine inoperative, whichever is higher, crews may subtract up to 48 ft/NM from the gradient with SQ/CC or DETCO approval. Crews are reminded this procedure allows for as little as zero ft of obstacle clearance and should only be used after the SDP has been exhausted during mission planning.

5.3.4. Operations on runways with grooved or porous surfaces: An RCR 15 may be used to compute critical field length, critical engine failure speed, and refusal speed for all operational and training missions when reported wet runway conditions exist. If a numerical RCR or Runway Surface Condition (RSC) is reported, crews must use the reported value for TOLD calculations. This authorization does not apply to landing data computations or when standing water is on the runway. Determination of standing water versus wet runway conditions will be made by the OG/CC or appropriate EOG/CC or O-6 with EOG/CC authority or their

designated representative (e.g., Supervisor of Flying [SOF]). The PIC remains responsible for the safe operation of the aircraft and may use more restrictive calculations if warranted. (e.g., the SOF declares the runway wet, but the PIC assesses standing water (more restrictive) and uses standing water TOLD. The PIC may not assess a wet runway (less restrictive) when the aforementioned authorities have declared standing water.

5.3.5. Do not practice traffic pattern operations, instrument approaches, low approaches or go-arounds at gross weights that will not afford a minimum climb gradient of 3.3%. For C-135 aircraft compute the climb gradient using threshold speed minus 10 kts, 3 engines, flaps 30, gear up (gear down for simulated emergency procedures practice), go-around N1 setting, and selected asymmetric N1 setting (between flight idle and max asymmetric N1). Include the effect of the air conditioning systems.

**5.4. Three-Engine Ferry Operations.** Three-engine operations during peacetime should only be accomplished after exhausting all other avenues to return an aircraft with an inoperative engine to mission capable status. ACC/A3 must approve three engine ferry sorties to be delegated no lower than a Wing Commander (WG/CC).

**5.5. Flight Maneuvers.** Maneuvers listed in [Table 5.1](#) are authorized for qualification and CT. They are applicable to all mission and series C-135 aircraft, except when prohibited or restricted by the flight manual or other current directives. **(T-3)**

5.5.1. AC Supervision of Copilot Maneuvers. ACs can accomplish touch-and-go landings as Pilot Flying (PF) with any qualified copilot. ACs may conduct a copilot's touch-and-go landings and receiver air refueling (AR) as Pilot Monitoring (PM) under the following conditions:

5.5.2. An IP must document on a Training Accomplishment and Progress Report (TAPR) that the copilot is able to accomplish AR and/or touch-and-go landings to a safe level. **(T-3)**

5.5.3. The SQ/CC has certified and documented the copilot to perform the event(s) under AC supervision.

5.5.4. AR Limits requires IP direct supervision and Trim Demo and Spoiler / Lateral Control Demo must be conducted or supervised by an IP.

**Table 5.1. Maneuvers Authorized for Qualification and Continuation Training (CT).**

	Position	Ceiling (ft)	Visibility (sm)	Crosswind (kts)	Day/Night	RCR
Touch and Go <sup>4</sup>	AC	1000	3	10	D / N	≥9
	IP	200	1/2	15	D / N	≥9
3 Engine (3E) Full Stop <sup>1,2</sup>	AC	3000	3	10	D Only	23
	IP	1000	2	15	D / N	≥9
3E Go Around <sup>1,2</sup>	AC	3000	3	N/A	D Only	N/A
	IP	1000	2	N/A	D / N	N/A
3E Go Around RP Off <sup>2</sup>	IP/D <sup>6</sup>	1000	2	N/A	D / N	N/A
3E Touch, 4E Go <sup>2</sup>	IP/D <sup>6</sup>	1000	2	15	D / N	≥9
Simulated EFTOC <sup>2,5</sup>	IP/D <sup>6</sup>	1000	2	N/A	D / N	N/A
30 Flap Touch and Go	IP/D <sup>6</sup>	200	1/2	15	D / N	≥9
30 Flap 3E Touch and Go <sup>2</sup>	IP/D <sup>6</sup>	1000	2	15	D / N	≥9
Landing Attitude Demo <sup>3</sup>	IP/D <sup>6</sup>	N/A	N/A	15	D / N	N/A
Notes:	<p>1. ACs may accomplish with any qualified copilot or AC. Copilots cannot accomplish 3 engine maneuvers without direct IP supervision.</p> <p>2. Simulated emergency procedures during the day require circling minimums. Simulated emergency procedures at night require 1000/2 or circling minimums whichever is greater.</p> <p>3. Landing Attitude Demos must use a runway of sufficient width and length to permit a safe, normal, full-stop landing.</p> <p>4. Accomplish Touch-and-Go landings IAW restrictions specified in <b>paragraph 5.8</b>.</p> <p>5. Do not retard the throttle on a simulated engine failure takeoff continued prior to 200 ft above ground level (AGL), and landing gear retraction.</p> <p>6. IP Only or IP Direct Supervision. IP direct supervision means the IP is at the controls.</p>					

**5.6. Emergency Procedures.** Do not practice emergency procedures that degrade aircraft performance or flight control capabilities unless specifically authorized elsewhere in this section.

5.6.1. The PIC will alert applicable crewmembers prior to practicing emergency procedures.

5.6.2. In an actual emergency, terminate all training and emergency procedures practice. Training should be resumed only when the PIC determines it is safe.

5.6.3. The powered rudder and Engine Failure Assist System (EFAS) will be on for all takeoffs and landings (if installed) except for an actual system failure.

5.6.4. Practice Emergency or Abnormal Gear and Flap Operation. Accomplish in the Aircrew Training Device (ATD) to the max extent possible. In addition to the weather restrictions listed in **Table 5.1**, aircrew will take into consideration any observed aircraft degradation and weather conditions they are currently operating in prior to initiating any abnormal or practice emergency procedures.

**5.7. Traffic Pattern and Landing Limitations.** The following limitations apply to both Touch-and-Go and full stop approaches and landings:

5.7.1. C-135 aircraft are authorized to fly Category I Instrument Landing System (ILS) approaches.

5.7.2. Landing distance will be computed based on actual aircraft configuration and runway conditions and will include flare distance and ground roll. C-135 aircraft will normally use 80% delayed braking factor. ACs may elect to use up to 90% delayed braking factor as an exception on a case-by-case basis if operationally necessary for full stop landings. OG/CC, or appropriate EOG/CC or O-6 with EOG/CC authority, approval is required for full-stop landings planned with greater than 90% delayed braking factor. OG/CC, or appropriate EOG/CC or O-6 with EOG/CC authority can delegate this waiver authority to the SQ/CC or DETCO on a case-by-case basis or for the duration of a deployment.

5.7.3. Flap Setting. Do not practice landings with less than 30-degree flaps. 30-degree flap, full stop landings are prohibited except in emergencies that dictate 30-degree flaps as the optimum or only landing configuration. Careful consideration should be given to factors influencing the landing ground roll in deciding to land with less than 50 degrees of flaps. It is permissible to use up to 95% delayed braking factor when determining 30 flap total landing distance on planned touch-and-go landings.

5.7.4. Gross Weight. C-135 Landing gross weights will not exceed 220,000 pounds for normal operation. If mission requirements dictate, and a safe stopping distance exists, the SQ/CC or DETCO may authorize landings up to flight manual weight limits.

5.7.5. Multiple Full Stop Landings. Compute brake energy prior to each subsequent takeoff.

5.7.6. Go-Arounds. Initiate a planned go-around not later than 200-ft Height Above Touchdown (HAT) (does not apply to a landing attitude demonstration).

5.7.7. Limit angle of bank to 30 degrees during traffic pattern operations.

**5.8. Touch-and-Go Landing Limitations.** Touch-and-go landings are prohibited on:

5.8.1. Slush, ice, or snow-covered runways. When conditions are patchy and/or greater than 25% runway coverage, but less than 50% coverage is reported, touch-and-go landings are at the discretion of the OG/CC, or appropriate EOG/CC or O-6 with EOG/CC authority.

5.8.2. Field Conditions (FICON) Runway Condition Code (RwyCC) < 3 (reported on any third of the runway).

5.8.3. RCR < 9.

**5.9. Prohibited In-Flight Maneuvers.** In addition to flight manual prohibited maneuvers, the following maneuvers will not be practiced or demonstrated in flight:

5.9.1. Stalls. **(T-3)**

5.9.2. Spins. **(T-3)**

5.9.3. Dutch roll. **(T-3)**

5.9.4. Emergency descent. **(T-3)**

5.9.5. Unusual attitudes. **(T-3)**

- 5.9.6. Compound emergencies (except simulated engine-out with rudder power off). **(T-3)**
- 5.9.7. Initial buffet. **(T-3)**
- 5.9.8. Turns greater than 45-degree bank (except MAJCOM-approved tactics maneuvers). **(T-3)**
- 5.9.9. Simulated jammed stabilizer. **(T-3)**
- 5.9.10. Combat departure. **(T-3)**
- 5.9.11. Runaway stabilizer trim. **(T-3)**
- 5.9.12. Do not simulate failure of two engines in flight. **(T-3)**
- 5.9.13. Do not actually shut down an engine for training. **(T-3)**

**5.10. Low Altitude Operations (LAO).** The following low altitude procedures are provided in support of operational and training missions planned or flown at altitudes below 6000 ft AGL, in addition to Technical Order (T.O.) guidance.

5.10.1. Altitude.

5.10.1.1. 55 OG/CC, or appropriate EOG/CC, or an O-6 with EOG authority must approve overland flights below 3000 ft AGL or over water flights below 1000 ft AGL. Approval should be obtained prior to departure for the deployment or mission (N/A RC-135U, WC-135). Crews anticipating LAO during a TDY or deployment will brief their SQ/DO, SQ/CC, or OG/CC on execution of safe LAO procedures during the pre-deployment certification process or as appropriate.

5.10.1.2. C-135 altitudes are restricted IAW AFTTP 3-1.RC-135, *RC-135 Tactical Employment*.

5.10.1.3. When the OG/CC has not approved overland flights below 3000 ft the selected altitude will provide a minimum clearance of 3000 ft from the highest obstruction or terrain within 4 NM of planned course centerline.

5.10.2. All overland LAO flights will be conducted in Day Visual Meteorological Conditions (VMC) conditions unless the flight is operating on an Instrument Flight Rules (IFR) clearance in controlled airspace.

5.10.3. Weather. Crews will obtain a turbulence forecast for the planned LAO.

5.10.3.1. Do not conduct LAO flights in areas of forecast severe or reported moderate or severe turbulence or icing. If continuous moderate or greater turbulence or icing is encountered, deviate or abort the route as soon as possible.

5.10.3.2. Immediately terminate LAO operations if surface winds exceed 40 kts or when moderate or greater turbulence is experienced. This will avoid the possibility of the aircraft reaching its structural limits caused by wind gust factors.

5.10.4. Equipment. The following equipment will be operational during LAO operations:

5.10.4.1. Window heat. **(T-3)**

5.10.4.2. Yaw damper system. **(T-3)**

5.10.4.3. Cockpit accelerometer. **(T-3)**

5.10.4.4. Inertial Navigation System (INS) with no degradations. (T-3)

5.10.4.5. All axes of the autopilot must be operational for training flights and operational LAO beyond the first 12 hours of the Flight Duty Period. (T-3)

5.10.4.6. Radar. (When convective activity is forecasted or when flying over land). (T-3)

5.10.5. There are no duration limits for flights entirely over water. From the beginning of LAO up to 5 hours (6 hours if augmented), may be over land. Any LAO after that must be over water or above 6000 ft AGL. (T-3)

5.10.6. Bird Strike Mitigation. Bird strike potential at low altitude is increased. Consult FLIP, migratory bird publications and local bird activity indicators prior to flight.

5.10.6.1. When the potential for a bird strike during LAO is likely, window heat should be on high.

5.10.6.2. Report observed hazardous low altitude bird activity to planners during mission debriefing.

5.10.6.3. For flights in areas where local altimeter settings are not available, use the forecast minimum altimeter setting. At level off altitude, match barometric altitude to radio altimeter and cross-check every 15 minutes.

## 5.11. Hot Refueling.

5.11.1. All RC/TC/WC-135 aircraft series have been given SSEA approval for hot refueling IAW T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, guidance. Hot refueling is the transfer of fuel from a non-aircraft source (e.g. R-11 or approved fuel support equipment) into an aircraft having an engine(s) running.

5.11.2. Hot refueling during non-Emergency War Order is at the discretion of the OG/CC, appropriate EOG/CC, or O-6 with EOG/CC authority.

5.11.3. All restrictions and requirements for hot refueling must be met IAW AFI 11-235, *Specialized Refueling Operations*, and T.O. 00-25-172.

5.11.4. Regardless of hot refueling site certification, ensure coordination with appropriate host base agencies is made prior to executing hot refueling procedures.

5.11.5. All aircrew and maintenance members performing hot refueling will be certified and current for the specific position they are filling (e.g., Fuel Panel Operator, SPR Panel Operator) or in training for initial certification or re-certification IAW AFMAN 11-2RC-135V1 55OG Sup (aircrew personnel) or AFI 21-101\_ACCUP, *Aircraft and Equipment Maintenance Management*, and local maintenance training directives (maintenance personnel).

5.11.5.1. The POL/Hydrant/Truck Operator must be trained and certified for hot refueling on the specific refueling equipment being used.

5.11.5.2. All Pilots and Co-pilots certified to fill the Pilot/Co-Pilot/Engine Monitor position are dual certified as Fuel Panel Operators and are able to fill both roles simultaneously if one of the pilots is required to fill another hot refueling position.

5.11.6. Do not accomplish hot refueling when a serviceable power cart is available for use unless accomplishing certification or in conjunction with a formal exercise.

5.11.7. If maintenance members are not available/certified for hot refueling, aircrew members may accomplish hot refueling utilizing T.O. 1C-135-(DM)-1-WA-2, *Hot Refueling Procedures* if specific approval is given by the appropriate authority as described in [paragraph 5.11.1](#). However, the Hot Refueling Supervisor position must be filled by a 2A3X or 2FO at all times.

## Chapter 6

### OPERATIONS

**6.1. Checklists.** Momentary hesitations for coordination items, ATC interruptions, and deviations specified in the flight manual, etc., are authorized.

**6.2. Duty Station.** A qualified pilot will always be in control of the aircraft during flight. **Exception:** Unqualified pilots undergoing qualification training (under the supervision of an IP). All crewmembers will be at their duty station or in an approved seat during all takeoffs, departures, AR, approaches and landings. During other phases of flight, crewmembers may leave their duty station for brief periods of time. The IP seat should be occupied to assist the crew in avoiding other aircraft during takeoff, departure, low level, penetration, approaches and landings when additional aircrew personnel are aboard. Crewmembers will notify the compartment lead (e.g., AC, TC, or AMS as applicable) prior to departing assigned primary duty stations.

**6.3. Flight Deck Entry.** PIC may authorize passengers and observers access to the flight deck during takeoff, climb, AR, descent and landing only if seats with seat belts are available. Passengers and observers will not be permitted access to the pilot or copilot position. During takeoff and landing, passengers and observers will be seated in a seat approved for use in takeoff and landing with appropriate safety belts and shoulder harnesses fastened.

**6.4. Takeoff and Landing Guidance.** The PF must be current and qualified for the maneuver being flown or under direct IP supervision if regaining currency or undergoing upgrade qualification training.

#### **6.5. Seat Belts.**

6.5.1. Crewmembers occupying the pilot, copilot, navigator, or additional crewmember positions will always have seat belts fastened IAW T.O. procedures, unless crew duties dictate otherwise.

6.5.2. All crewmembers will be seated with seat belts and shoulder harnesses fastened during takeoff and landing. For taxi and AR operations, all aircrew members should (passengers will) be seated with seat belts fastened, unless crew duties dictate otherwise. Crewmembers performing instructor or flight examiner duties are exempt from seat belt requirements during non-critical phases of flight; however, a seat with an operable seat belt will be assigned and should be used unless it would interfere with performance of duties.

#### **6.6. Communications Guidance.**

6.6.1. Command Radios.

6.6.2. The PM normally makes all ATC radio calls but other crewmembers, such as the navigator, may be required to assist, as applicable.

6.6.3. In terminal areas the pilot, copilot, and navigator will monitor the primary command (ATC) radio unless directed otherwise. The navigator or designated crewmember will monitor C2 frequencies on the inbound and outbound leg, during takeoff, climb-out, AR, descent, approach, landing and traffic pattern operations, unless otherwise directed.

6.6.4. When overnighing the aircraft off-station, the PIC is responsible for ensuring the 55th Wing Command Post (55WG/CP) is notified of aircraft location and status. This will be accomplished by using local Command Post to pass to 55WG/CP.

6.6.5. Both pilots will monitor UHF Guard (VHF Guard when appropriate) frequency regardless of primary radio. The navigator will monitor Guard during receiver AR and at the PIC's discretion during other times. Pilots normally will not monitor Guard during receiver AR.

**6.7. Runway, Taxiway, and Airfield Requirements.** Minimum runway requirements for C-135 aircraft are 7,000-foot length and 147-foot width provided TOLD supports the takeoff and landing. Minimum taxiway width for C-135 aircraft is 74 ft. **(T-3) Exception:** Minimum taxiway width for C-135 aircraft operating at RAF Waddington west of the runway is 58 ft.

6.7.1. In addition to AFMAN 11-218, *Aircraft Operations and Movement on the Ground* requirements, the PIC should use marshallers and wing walkers or deplaned crewmembers to act as observers while maneuvering on the ramp or taxiways with less width than specified in this manual or when aircraft clearance from equipment (e.g., vehicles or parked aircraft) may be a concern. **(T-3)**

6.7.2. Intersection takeoffs may be accomplished provided the operating environment (e.g., gross weight, obstructions, climb criteria, weather, TOLD) will allow a safe takeoff and departure using reduced thrust procedures. This decision to make intersection takeoffs rests solely with the PIC.

**6.8. Fuel Reserves and Alternate Airport Requirements.**

6.8.1. Plan all missions to arrive overhead destination or worst-case alternate fix with no less than 15,000 pounds fuel reserve, or IAW AFMAN 11-202V3, whichever is greater.

6.8.2. Minimum landing fuel is 12,000 pounds. If it becomes apparent the aircraft will land with 12,000 pounds of fuel remaining or less, declare "Minimum Fuel" and land short of destination or divert as required.

6.8.3. Emergency landing fuel is 10,000 pounds.

**6.9. Fuel Jettisoning.** No prior approval is required for fuel jettisoning during an aircraft emergency when immediate reduction of gross weight is a critical factor in safely recovering aircraft/personnel. If possible, record altitude, position and winds aloft. When the situation permits, notify the controlling agency of actions and location of fuel jettisoning.

6.9.1. Record all pertinent data to include flight conditions, altitude, airspeed, air temperature, wind direction and velocity, type and amount of fuel, aircraft type and position at time of jettison, time and duration of jettison activity, and reason jettison was accomplished. **Note:** Unit commanders will retain the fuel jettison information for 6 months as documentation in the event of claim against the government resulting from fuel jettison.

6.9.2. PICs will obtain SQ/CC, DETCO, SQ/DO, or DETDO approval for fuel jettison when immediate reduction of gross weight is not required. In cases of operational necessity for expeditious aircraft recovery, to include assisting United States Transportation Command (TRANSCOM) air refueling assets, the PIC may elect to adjust gross weight.

**6.10. Autopilot Failure.** With any axis of the autopilot inoperative, the crew duty day is restricted to 12 hours un-augmented or 16 hours augmented. Based on his or her assessment of crew fatigue (cumulative or projected), the PIC may request a waiver. SQ/CC or DETCO is the waiver authority.

**6.11. Adverse Weather.** If a crew inadvertently or is forced to enter an area of known or forecasted severe weather, then the crew will make every attempt to leave such flight conditions immediately. The following will mitigate exposure to thunderstorm hazards when operating in the vicinity of an aerodrome in an area where thunderstorms are occurring or are forecast. Aircrews will:

6.11.1. Not intentionally fly into a thunderstorm. Do not fly in Instrument Meteorological Conditions (IMC) near thunderstorms without operable weather radar.

6.11.2. Try to maintain VMC.

6.11.3. Maintain at least a 5 NM separation from heavy rain showers.

6.11.4. Not takeoff or land under conditions of freezing rain or freezing drizzle or when thunderstorms are producing hazardous conditions (such as hail, strong winds, gust fronts, heavy rain, wind shear, or microbursts).

6.11.5. Avoid areas of high lightning potential, i.e., clouds within plus or minus 5000 ft of the freezing level.

## **6.12. Pre-Flight.**

6.12.1. Air Force Technical Order (AFTO) Form 781, *ARMS Aircrew/Mission Flight Data Document*. The exceptional release must be signed before flight. Ensure that the Air Force Fuel Identaplate is aboard the aircraft.

6.12.2. Crewmembers may perform aircraft servicing duties when qualified maintenance support is not available. Crewmembers may augment maintenance refueling teams at enroute stops.

6.12.3. The PIC will ensure aircrews that turn aircraft without qualified maintenance specialist assistance comply with the appropriate maintenance T.O. In addition, the PIC will enter a red dash symbol in the AFTO Form 781H, *Aerospace vehicle Flight Status and Maintenance*, updating current status, and enter a red dash symbol in a discrepancy that reflects that the applicable maintenance inspection (e.g., preflight, through-flight, basic post-flight) is overdue.

## **6.13. Departure.**

6.13.1. Mission departures are considered on time if the aircraft is airborne within plus or minus 30 minutes of scheduled takeoff time.

6.13.2. Scheduled takeoff time may be adjusted as necessary to meet the aerial refueling rendezvous time. Notify scheduling and controlling agency, or the tanker crew directly, of any deviations affecting the control time.

## **6.14. Navigation.**

6.14.1. Crews may fly with a laptop or approved EFB capable of providing a moving map display, from an approved GPS/ADS-B In receiver for training or operational missions.

6.14.2. Crews may utilize commercial mission planning software (e.g., ARINC™, Jeppesen™, ForeFlight®) for mission planning/flight plan filing and fuel predictions (with appropriate Flight Performance Module (FPM) installed).

6.14.3. Equal Time Points (ETPs). ETPs will be computed when conducting relays over water or desolate land areas. The ETP may be calculated via the Flight Management System (FMS) in real-time if available. Contingency ETPs will be accounted for IAW AFMAN 11-202V3, paragraph 4.20.4.

6.14.4. Airspace and equipment certifications will be documented, as required, in the 55 WG Supplement and specific aircraft T.O.

6.14.5. C-135 crews may utilize the FMS function (Cold Temperature Compensation), where available and required, for Cold Weather Altitude Corrections instead of utilizing the Flight Information Handbook.

### **6.15. Customs, Insect, and Pest Control.**

6.15.1. No personnel should leave the aircraft prior to a Customs inspection unless authorized by the PIC, Customs Agent, or as directed below:

6.15.1.1. The minimum number of maintenance personnel may leave the aircraft once pulling into the chocks unless directed otherwise by the Customs Agent.

6.15.1.2. Emergency or extenuating circumstances but the PIC must notify the Customs Agent as soon as possible.

6.15.2. PICs will ensure required pest control is accomplished IAW to Department of Defense Directive (DoDD) 4500.54E, *DoD Foreign Clearance Program*; or as directed by HHQ. Certify the spraying on Customs and Border Protection (CBP) Form 7507, *General Declaration (Outward/Inward) Agriculture, Customs, Immigration, and Public Health* or on forms provided by the host country.

6.15.3. When seeing any insect or rodent infestation of the aircraft in flight, notify the destination C2 agency, base operations, or airport manager of the situation before landing so the proper authorities can meet the aircraft.

6.15.3.1. On arrival, open cargo doors or hatches to allow entry of officials required to inspect the aircraft for insect or rodent infestation or to de-plane the minimum number of crewmembers required to chock the aircraft.

6.15.3.2. Do not load or unload cargo or passengers until the inspection is completed. This procedure may be altered to satisfy mission or local requirements.

### **6.16. Arresting Cables.** (Does not include recessed cables).

6.16.1. RC-135 aircraft will ensure all approach end barriers and cables are removed/lowered prior to recovery. TOLD calculations must support a full stop landing before the departure end cable/barrier.

6.16.2. If time or operational constraints dictate, the AC may taxi over approach end cables and use the remaining runway for takeoff.

6.16.3. PICs will account for runway available from the approach end to the departure end cable/barrier. TOLD calculations must support a departure or a full stop abort before the departure end cable/barrier.

6.16.4. Do not accomplish touch and go landings with arresting cables/barriers in the raised position.

**6.17. Alert.** Alert procedures will be initiated by the applicable SQ/CC or DETCO, when mission requirements require a quick response to HHQ taskings. The applicable SQ/CC or DETCO is the waiver/modification authority for C-135 alert procedures.

6.17.1. ALPHA Alert. Aircrew is capable of launching within one (1) hour of crew notification. Crews should be quartered near the alert aircraft with sufficient transportation to launch IAW mission timing. Crew members are given 12-hours of pre-alert crew rest. A crew will not stay on ALPHA alert duty for more than 48 hours. After 48 hours, the crew must be launched, released, or entered into pre-departure crew rest. Crew duty begins when the PIC is notified of the launch order.

6.17.2. BRAVO Alert. Aircrew launch is planned within four (4) hours of crew notification. Crew members are given 12-hours of pre-alert crew rest. After crew rest, they are placed on telephone standby. A crew will not stay on BRAVO alert duty for more than 48 hours. After 48 hours, the crew must be launched, released, or entered into pre-departure crew rest. Crew duty begins when the PIC is alerted for duty.

## Chapter 7

### C-135—AIRCRAFT SECURITY

**7.1. General.** This chapter provides guidance on aircraft security and preventing and resisting aircraft piracy (hijacking) of C-135 aircraft. AFI 13-207-O, *Preventing and Resisting Aircraft Piracy (Hijacking) (FOUO)*; DAFI 31-101, *Base Defense Operations*; and specific MAJCOM or Combatant Command (COCOM) security publications containing additional guidance. Aircrews will not release information concerning hijacking attempts or identify armed aircrew members or missions to the public.

**7.2. Protection Levels (PLs).** Aircraft security at a non-US or non-AF military installations is the responsibility of the TACON authority to coordinate and ensure it meets the PL requirements.

7.2.1. The RC/WC-135 is designated a security PL 2 (or equivalent) resource when on alert, when deployed outside the continental United States (OCONUS), or when Sensitive Compartmented Information (SCI) configured. It is a PL 3 (or equivalent) resource at all other times. At contractor facilities, the RC/WC-135 must receive the same level of security required for PL 2 resources under AF control. Waivers to specific physical security requirements will be staffed through the administrative control (ADCON) chain of command to MAJCOM/Security Forces. Waiver requests will be initiated by the SQ/CC or DETCO and should not exceed 2 weeks. The purpose of a waiver is to allow additional security forces to be sourced to augment a shortfall of installation security members.

7.2.2. The TC-135 will be treated as PL 3 to the maximum extent possible.

**7.3. Air Force Physical Security Program.** The following security procedures will implement DAFI 31-101, requirements for C-135 aircraft:

7.3.1. Aircraft will be secured for the appropriate protection level IAW DAFI 31-101 and this manual.

7.3.2. At non-US and non-AF military installations, the TACON authority and PIC will determine the adequacy of local security capabilities to provide aircraft security commensurate with this volume. If security is determined to be inadequate, the aircraft will depart to a station where adequate security is available.

7.3.3. Security Forces must be made aware of all visits to the aircraft, as applicable.

7.3.4. Security support is a continual requirement and is not negated by the presence of aircrew or ground crewmembers. Security force support terminates only after the aircraft doors are closed and the aircraft taxis.

7.3.5. Ensure Communications Security (COMSEC) and other classified materials are turned in at destination and receipts are obtained for COMSEC and classified material if not stored on the aircraft. Combat crew communications or appropriate C2 agency will provide temporary storage for COMSEC and other classified materials during enroute, turnaround, and crew rest stops.

7.3.6. Ensure all modes and codes are zeroized, as required, and any classified route of flight is erased before leaving the aircraft, as applicable.

**7.4. En route Security.** The planning agency must coordinate TACON authority to ensure adequate enroute security is available. If required, PICs will receive a threat assessment and an enroute security capability evaluation briefing from local Security Forces Squadron (SFS) and/or the Office of Special Investigations (OSI) for areas of intended operation prior to home station departure and should request updates from enroute Command, Control, and Communications (C3) agencies as required. If required, a Fly Away Security (FAS) team will be assigned to the mission as requested by the appropriate TACON authority. Reference DAFI 31-101 for FAS program procedures.

7.4.1. The FAS team reports to the PIC at all times and the PIC will ensure the FAS team members receive a full aircrew briefing.

7.4.2. The PIC will assess the local situation and take the following actions as required.

7.4.2.1. Request area security post or patrols from local security forces commensurate with appropriate designated protection level.

7.4.2.2. During short ground times, direct crewmembers to remain with the aircraft and maintain surveillance of aircraft entrances and activities in the aircraft vicinity.

7.4.2.3. If local security forces are unavailable or are unacceptable to the PIC and the crew has not been augmented with a FAS team, the PIC may waive the flight duty period limits and crew rest requirements and depart as soon as possible for a base considered reliable. Report movement and intentions to the controlling agency as soon as practical. If departure is not possible, the aircrew must secure the aircraft to the best of their ability (2-3 people are recommended to secure the aircraft). In no case will the entire crew leave the aircraft unattended. Crew rest requirements will be subordinate to aircraft security when the airframe may be at risk. The PIC should rotate a security detail among the crew to provide for both aircraft protection and crew rest until relief is available. Request security assistance from the nearest DoD installation, US Embassy, local military, or law enforcement agencies as appropriate.

7.4.2.4. Unescorted entry is granted to aircrew members and support personnel assigned to the mission who possess their home station AF Form 1199, *Air Force Entry Control Card (Accountable)*, supported by an Entry Access Letter (EAL), and aircrew orders. All others must be escorted within the area. Aircrew members and assigned crew chiefs are authorized escort authority. Normally, non-US nationals, such as cargo handlers, can perform their duties under escort and should not be placed on the EAL.

7.4.3. When parking on a secure ramp, the aircraft will normally be left unlocked to allow ground support personnel immediate access. If the PIC determines that security is necessary (professional gear or personal items left on the aircraft), the crew will use only breakable seals (e.g., forestry service "boxcar" seals, safety wire).

7.4.3.1. If ground personnel need to access a sealed aircraft, they will request permission from local command and control agency, which will log the breach in their logbook and notify the crew at alert time. Ground personnel will reseal the aircraft using similar means.

7.4.3.2. If unauthorized entry is suspected or an unauthorized seal breakage occurs, report via the appropriate AF-approved form for a PIC's report on services or facilities.

7.4.4. When parking on a ramp where the PIC determines that security may be a problem, the aircraft will be sealed or locked. If further security is required, other measures (Security Forces teams, local security, etc.) will be utilized.

**7.5. Detecting Unauthorized Entry.** If, in the PIC's judgment, the aircraft needs to be locked and sealed in order to detect unauthorized entry, then:

7.5.1. Use available aircraft ground security locking devices.

7.5.2. Secure the hatches and doors in a manner that will indicate unauthorized entry (e.g., tape inside of doors and hatches to airframe so that entry pulls tape loose).

7.5.3. Close and lock the main crew entrance door.

7.5.4. Wipe the immediate area around lock and latches clean to aid in investigation of a forced entry.

7.5.5. Report any unauthorized entry or tampering to the OSI, security forces or local authorities, and the C3 agency. Have aircraft thoroughly inspected prior to flight.

## Chapter 8

### AIR REFUELING (AR)

**8.1. AR without Tanker Disconnect Capability.** Without tanker disconnect capability means the boom operator cannot trigger an immediate disconnect. Do not attempt further contacts with a tanker after a known loss of tanker disconnect capability. **Exceptions:** Fuel emergency situations, airborne alert, receiver deployment or redeployment and operational missions.

**8.2. Manual/Emergency Boom Latching.** To complete training or evaluation in manual/emergency boom latching procedures, the following conditions must be met:

8.2.1. An IP must directly supervise the receiver activity on board receiver aircraft. Advise tanker of direct IP supervision and intent to perform one receiver initiated disconnect to demonstrate capability as required.

8.2.2. Contacts must be limited to the minimum required.

8.2.3. Tanker and Receiver AR system must be fully operable. **Note:** Receiver pilot and boom operator must coordinate all actions as required by applicable directives when making AR contacts during the situations listed above.

**8.3. Prohibited Refueling Maneuvers.** When operating in manual/emergency boom latching or when the tanker does not have disconnect capability, the following maneuvers are prohibited:

8.3.1. Practice emergency separation while in contact.

8.3.2. Demonstration of boom envelope limits.

**8.4. Practice Emergency Separation.**

8.4.1. Prior to actual accomplishment of a practice emergency separation, coordination is mandatory between the tanker pilot, boom operator, and receiver pilot on when the separation will occur and who will give the command for separation.

8.4.2. If separation is initiated from the contact position, the receiver's AR system must be in NORMAL, and a boom operator initiated disconnect capability with the receiver must have been demonstrated.

8.4.3. Practice emergency separations may be accomplished with passengers onboard.

**8.5. Limits Demonstrations.** Limits demonstrations will only be flown under direct IP supervision and only after a tanker disconnect capability is demonstrated.

DAVID G. SHOEMAKER, Major General, USAF  
Director of Operations

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

ACCMAN 11-2RC-135V1, *RC/WC/TC-135—Aircrew Training*, 29 January 2025

AFI 11-235, *Specialized Refueling Operations*, 31 May 2019

AFI 13-207-O, *Preventing and Resisting Aircraft Piracy (Hijacking)(FOUO)*, 5 February 2019

AFI 21-101\_ACCSUP, *Aircraft and Equipment Maintenance Management*, 23 June 2020

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFMAN 11-202V3, *Flight Operations*, 10 January 2022

AFMAN 11-202V3\_ACCSUP, *Flight Operations*, 8 November 2022

AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, 5 April 2019

AFPD 11-2, *Aircrew Operations*, 31 January 2019

AFTTP 3-1.RC135, *RC-135 Tactical Employment*, 19 May 2023

DAFI 31-101, *Base Defense Operations*, 10 September 2024

DAFMAN 11-401, *Aviation Management*, 27 October 2020

DAFMAN 90-161, *Publishing Processes and Procedures*, 18 October 2023

DoDD 4500.54E, *DoD Foreign Clearance Program*, 31 May 2022

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 23 May 2022

T.O. 1C-135-(DM)-1-WA-2, *Hot Refueling Procedures*, 28 June 2021

***Prescribed Forms***

None

***Adopted Forms***

AF Form 1199, *Air Force Entry Control Card (Accountable)*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance*

CBP 7507, *General Declaration (Outward/Inward) Agriculture, Customs, Immigration, and Public Health*

DAF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

AC—Aircraft Commander

ACC—Air Combat Command

**ACCMAN**—Air Combat Command Manual  
**ADCON**—Administrative Control  
**ADS-B**—Automatic Dependent Surveillance - Broadcast  
**AF**—Air Force  
**AFI**—Air Force Instruction  
**AFMAN**—Air Force Manual  
**AFPD**—Air Force Policy Directive  
**AFTAC**—Air Force Technical Applications Center  
**AFTO**—Air Force Technical Order  
**AGL**—Above Ground Level  
**AMS**—Airborne Mission Supervisor  
**AR**—Air Refueling  
**ASE**—Airborne Systems Engineer  
**ATC**—Air Traffic Control  
**ATD**—Aircrew Training Device  
**C2**—Command and Control  
**C3**—Command, Control, and Communications  
**CMC**—Cryptologic Mission Compartment  
**CML**—Crew Manning Letter  
**COCOM**—Combatant Command  
**COMSEC**—Communications Security  
**CONOP**—Concept of Operation  
**CT**—Continuation Training  
**DAF**—Department of the Air Force  
**DAFMAN**—Department of the Air Force Manual  
**DETCO**—Detachment Commander  
**DETDO**—Detachment Operations Officer  
**DoD**—Department of Defense  
**DoDD**—Department of Defense Directive  
**EAL**—Entry Access Letter  
**EFAS**—Engine Failure Assist System  
**EFB**—Electronic Flight Bag

**EOG/CC**—Expeditionary Operations Group Commander

**ETP**—Equal Time Point

**FAS**—Fly Away Security

**FDP**—Flight Duty Period

**FICON**—Field Conditions

**FLIP**—Flight Information Publications

**FMS**—Flight Management System

**FOD**—Foreign Object Debris

**FPM**—Flight Performance Module

**ft**—Feet

**GPS**—Global Positioning System

**HAT**—Height Above Touchdown

**HHQ**—Higher Headquarters

**HQ**—Headquarters

**IAW**—In Accordance With

**IFR**—Instrument Flight Rules

**ILS**—Instrument Landing System

**IMC**—Instrument Meteorological Conditions

**INS**—Inertial Navigation System

**IP**—Instructor Pilot

**kts**—Knots

**LAO**—Low Altitude Operations

**m**—**Meters**—MAJCOM—Major Command

**MC**—Mission Commander

**MDS**—Mission Design Series

**MEP**—Mission Essential Personnel

**N/A**—Not applicable

**NAF**—Numbered Air Force

**NM**—Nautical Mile(s)

**OCONUS**—Outside the Continental United States

**OCR**—Office of Coordinating Responsibility

**OG/CC**—Operations Group Commander

**OPCON**—Operational Control  
**OPLAN**—Operations Plan  
**OPORD**—Operations Order  
**OPR**—Office of Primary Responsibility  
**ORI**—Operational Readiness Inspection  
**OSI**—Office of Special Investigation  
**PDM**—Programmed Depot Maintenance  
**PF**—Pilot Flying  
**PIC**—Pilot in Command  
**PL**—Protection Level  
**PM**—Pilot Monitoring  
**POL**—Petroleum, Oil and Lubricants  
**PUP**—Pilot Upgrade Program  
**RCR**—Runway Condition Reading  
**RM**—Risk Management  
**RSC**—Runway Surface Condition  
**RVR**—Runway Visual Range  
**RwyCC**—Runway Condition Code  
**SCI**—Sensitive Compartmented Information  
**SDP**—Special Departure Procedure  
**SFS**—Security Forces Squadron  
**sm**—Statute Mile(s)  
**SOF**—Supervisor of Flying  
**SPR**—Single Point Refueling Panel  
**SQ/CC**—Squadron Commander  
**SQ/DO**—Squadron Operations Officer  
**TACON**—Tactical Control  
**TAPR**—Training Accomplishment and Progress Report  
**TC**—Tactical Coordinator  
**TDY**—Temporary Duty  
**T.O.**—Technical Order  
**TOLD**—Takeoff and Landing Data

**TRANSCOM**—United States Transportation Command

**UHF**—Ultra High Frequency

**USSID**—United States Signals Intelligence Directive

**VHF**—Very High Frequency

**VMC**—Visual Meteorological Condition

**WG/CC**—Wing Commander

### *Office Symbols*

**55 OG/CC**—55th Operations Group Commander

**ACC/A3**—Air Combat Command Director of Operations

**ACC/A3C**—Air Combat Command, Command and Control, Intelligence, Surveillance and Reconnaissance Division

**ACC/A3CR**—Air Combat Command Airborne Reconnaissance, and Surveillance Operations Branch

**ACC/A3TV**—Air Combat Command Standardization Branch

**AF/A3O**—Air Force Directorate of Current Operations

**AFTAC/CC**—Air Force Technical Applications Center Det 1 Commander

### *Terms*

**Airborne Mission Supervisor (AMS)**—Senior cryptologic authority on the mission aircraft. Oversees the cryptologic mission crew collection and reporting and support local, theater, and national tasking, as required.

**Additional Crewmember**—Individual possessing valid aeronautical orders, who is not required to perform in-flight duties and is assigned in addition to or authorized to accompany the normal crew complement required for that mission according to **Chapter 3** of this volume. Additional crewmembers may not log flying time unless specifically authorized in this volume.

**Administrative Control (ADCON)**—Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations.

**Critical Phases of Flight**—Taxi, takeoff, AR, approach to landing, landing, or any flight maneuvers specifically requiring immediate access to controls. Approaches to planned missed approaches and air refueling rendezvous are not considered critical phases of flight.

**Delay**—Failure of an aircraft to depart due to maintenance or operational reasons at the scheduled departure time plus 30 minutes.

**Execution**—Command-level approval for initiation of a mission or portion thereof after due consideration of all pertinent factors. Execution authority is restricted to designated command authority.

**Experienced Crewmember**—Requirements listed in ACCMAN 11-2RC-135V1. Individual must also be designated “experienced” by the SQ/CC.

**Fuel Reserve**—Amount of usable fuel carried beyond that required to complete the flight as planned.

**Ground Time**—Interval between arrival in the chocks and next takeoff time.

**HHQ Missions**—Missions executed at or above the NAF. HHQ missions include deployment, redeployment, reconnaissance operations, Operational Readiness Inspections (ORIs), and Programmed Depot Maintenance (PDM) input/output. Exercise missions flown in support of HHQ exercise, examples are GREEN FLAG, COPE THUNDER, FLEETEX, etc., are also considered HHQ missions as well as exercise support to classified users or executed as directed on an operational or exercise Air Tasking Order.

**Mission**—Movement of aircraft from a designated point of origin to a designated destination as defined by assigned mission identifier, mission nickname, or both in the schedule, mission directive, OPORD or OPLAN.

**Operational Control (OPCON)**—Transferable command authority that may be exercised by commanders at any echelon at or below the level of COCOM. OPCON is inherent in COCOM (command authority). OPCON may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. OPCON should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and service and/or functional component commanders. OPCON normally provides full authority to organize commands and forces and to employ those forces, as the commander in operational control considers necessary to accomplish assigned missions. OPCON does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

**Primary Position**—Any seat in which you can log “Primary flight time” per DAFMAN 11-401: —Log primary flight time only when performing duties at a duty position established for that specialty. (e.g., Instructor seats and crew rest seats are not considered primary positions, with the exception of ASE’s).

**Scheduled Takeoff Time**—Takeoff time as established in the schedule or OPORD.

**Special Departure Procedure (SDP)**—A preplanned IFR departure procedure printed in graphic form to provide obstacle clearance and a transition from the terminal area to the appropriate en route structure. Pilots should understand that most SDPs allow exactly zero ft of clearance between their aircraft and the offending obstacles, and provide no safety factor for pilot technique, less than 100% engine thrust, etc.

**Tactical Coordinator (TC)**—Oversees mission crew in locating, collecting, and exploiting nationally tasked intelligence targets for the intelligence community and theater commanders.

**Tactical Control (TACON)**—Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions

or tasks assigned. TACON is inherent in operational control. TACON may be delegated to, and exercised at, any level at or below the level of COCOM.

**Training Mission**—Mission executed at the unit level for the sole purpose of aircrew training for upgrade or proficiency. Does not include operational missions as defined in this volume.