



Flying Operations

C-20 OPERATIONS PROCEDURES

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This volume implements AFD 11-2, *Aircraft Rules and Procedures*. It establishes policy for the operation of USAFE C-20A aircraft to safely and successfully accomplish their worldwide Operational Support Airlift (OSA) mission. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. This instruction is not applicable to Air National Guard (ANG) or Air Force Reserve Command (AFRC) units.

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This document is new and must be completely reviewed. This instruction contains references to the following field (subordinate level) publications and forms which, until converted to departmental level publications and forms, may be obtained from the respective MAJCOM publication office:

Publications: AMCI 11-208 and USAFEI 21-101 (USAFE)

Forms: AMC Form 43, 54, 196, 423 (AMC) and USAFE Form 0-419 (USAFE).

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Chapter 1

GENERAL INFORMATION

1.1. General.

1.1.1. This AFI provides guidelines for USAFE C-20A operations and applies to C-20A aircrews and all management levels concerned with operations of USAFE-assigned C-20A aircraft. It is a compilation of information from aircraft flight manuals, FLIP publications, and other Air Force 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. For those areas where this AFI is the source document, waiver authority will be in accordance with Paragraph 1.4.3. For those areas where this AFI repeats information contained in other source documents, waiver authority will be in accordance with these source documents.

1.1.2. All units and agencies involved in or supporting C-20A operations will use this AFI. Copies will be current and available to planning staffs from headquarters to aircrew level. Mobility transportation and base operations passenger manifesting agencies will also maintain a copy of this AFI.

1.2. Applicability. This AFI is applicable to USAFE C-20A individuals/units operating the C-20A model aircraft only.

1.3. Key Words Explained.

1.3.1. "Will" and "shall" indicate a mandatory requirement.

1.3.2. "Should" is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.3.3. "May" indicates an acceptable or suggested means of accomplishment.

1.3.4. "Note" indicates operating procedures, techniques, etc., which are considered essential to emphasize.

1.4. Deviations and Waivers. Do not deviate from the policies and guidance in this AFI under normal circumstances, except:

1.4.1. For safety.

1.4.2. When it is necessary to protect the crew or aircraft from a situation not covered by this AFI and immediate action is required, the AC has ultimate authority and responsibility for the course-of-action to be taken. Report all deviations or exceptions without waiver through 86 OG/OGV to HQ USAFE/DOV who, in turn notifies lead command for follow-on action, if necessary.

1.4.3. Unless otherwise directed in this AFI, waiver authority for the contents of this document is HQ AMC/DO (lead command), who in turn delegates HQ USAFE/DO as waiver authority. Notify lead command (within 30-days) for follow-on action, if required.

Exception: Contingency missions. Waiver authority for contingency missions will be listed in the OPORD/Tasking ORDER, etc., or the DIRMOBFOR (or equivalent) for the agency with C2 of the aircraft. Crewmembers may request additional information or confirmation from their home units, USAFE/DO, or lead command.

1.5. Supplements. This AFI is a basic directive. USAFE may supplement this AFI according to AFPD 11-2, *Aircraft Rules and Procedures*, and AFI 11-202V3, *General Flight Rules*. Supplements and local procedures will not duplicate, alter, amend, or be less restrictive than the provisions of this AFI or flight manual publications. HQ USAFE/DO may initiate long-term waiver requests to this basic document. USAFE will specify long-term waiver approvals, date, and expiration date in the appropriate USAFE supplement. Limit supplemental information to unique requirements only.

1.5.1. Combined Operations. Use only the basic AFI for planning or operations involving forces from lead and user commands. Commanders may use approved MAJCOM supplement procedures with assigned and/or chopped forces provided these forces receive appropriate training and the duration is specified. Commanders should not assume or expect aircrews from another command to perform MAJCOM specific procedures from their supplements unless these provisions are met. Questions by aircrews, planners, and staff should be forwarded to the OPR.

1.5.2. Limit supplemental information to unique requirements only.

1.5.3. Coordination Process. Forward HQ USAFE/DO-approved supplement with attached AF Form 673, **Request to Issue Publication**, to HQ AMC/DOV, 402 Scott Dr., Unit 3A1, Scott AFB IL, 62225-5302. HQ AMC/DOV will provide a recommendation to HQ AMC/DO and forward to HQ AFFSA/XOF for approval. Provide a final copy to XOF after publication.

1.5.4. Prior to publication, units will send one copy of **Chapter 10** to HQ USAFE/DOV for validation. Send final copies to HQ AMC/DOV, HQ USAFE/DOV, and 3AF/A3.

1.6. Requisition and Distribution Procedures. Unit commanders provide copies for all aircrew members and associated support personnel. This publication is available digitally on the Air Force Web site at <http://afpubs.hq.af.mil>.

1.7. Improvement Recommendations. Send comments and suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, through 86 OG/OGV to HQ USAFE/DOV, then HQ AMC/DOV, 402 Scott Drive Unit 3A1, Scott AFB IL, 62225-5302 according to AFI 11-215, *Flight Manuals Program (FMP)*, and USAFE Supplement.

1.8. Definitions. The explanation or definition of terms and abbreviations commonly used in the aviation community can be found in FAR, Part 1 DoD *FLIP General Planning*, Chapter 2, and Joint Pub 1-02, *The DOD Dictionary of Military and Associated Terms*. See **Attachment 1** for common references, terms, and supporting information.

1.9. Aircrew Operational Reports. The reporting requirements in this instruction are exempt from licensing in accordance with paragraph 2.11.10 of AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*.

Chapter 2

COMMAND AND CONTROL

2.1. General. Command and control of Operational Support Airlift (OSA) aircraft is exercised through the United States Air Forces in Europe (USAFE) Air Mobility Operations Control Center (AMOCC). The USAFE AMOCC provides mission control 24-hours before mission origination and tactical control from mission origination to termination.

2.2. Execution Authority. Execution approval will be received through the local command post or command element. The 86 OG/CC will be the executing authority for training missions. The aircraft commander will execute missions operating outside communications channels.

2.2.1. Supplemental Training Mission (STM). Opportune airlift of cargo and mission personnel may be accomplished as a by-product of crew training missions. The training mission will not be degraded in any manner to accomplish the STM. Use of training time to accomplish airlift should occur as a last result of other processes. On an STM, the aircraft commander will release a maximum number of space-available seats commensurate with mission requirements and safety.

2.2.2. Off-Station Training Flights. Wing Commanders are the approval authority for off station trainers (authority may be delegated to the 86 OG/CC). Prior to approval, commanders will carefully review each proposed trainer's itinerary to ensure it justifies and represents the best avenue for meeting training requirements (IAW AFI 11-202V3).

2.3. Aircraft Commander Responsibility and Authority. An aircraft commander is designated for all flights on the flight authorizations according to AFI 11-401, *Flight Management*, and USAFE Supplement. Aircraft commanders are:

2.3.1. In command of all persons aboard the aircraft.

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

2.3.3. Vested with the authority necessary to manage crew resources and accomplish the mission.

2.3.4. The final mission authority and will make decisions not specifically assigned to higher authority.

2.3.5. The final authority for requesting or accepting any waivers affecting the crew or mission.

2.3.6. Charged with keeping the applicable C2 or executing agencies informed concerning mission progress.

2.3.7. Responsible for ensuring that only activity authorized by the executing authority is accomplished, unless emergency conditions dictate otherwise.

2.4. Mission Clearance Decision. The final decision to delay a mission may be made by either the executing agency or the aircraft commander when conditions are not correct to start or continue a mission. Final responsibility for the safe conduct of the mission rests with the aircraft commander. If the aircraft commander refuses a mission, the mission will not depart until the conditions have been corrected or improved so that the mission can operate safely. Another aircraft commander and aircrew will not be asked to take the same mission under the same conditions.

2.4.1. Rerouting or Diverting a Mission. Must be authorized by the USAFE AMOCC, except in an emergency or when required by en route or terminal weather conditions.

2.4.1.1. The controlling agency directing the rerouting or diversion is responsible for ensuring the aircraft is compatible with departure, en route, and destination requirement and facilities.

2.4.1.2. The aircraft commander will notify the appropriate command center of any aircraft or aircrew limitation that may preclude diverting or rerouting the mission.

2.4.2. When directing an aircraft to an alternate airfield, the USAFE AMOCC will ensure the aircraft commander is provided existing and forecast weather for the alternate, NOTAMs, and appropriate airfield information from the ASRR. If the planned alternate becomes unsuitable while en route, the aircraft commander will coordinate with the USAFE AMOCC for other suitable alternates. The USAFE AMOCC will coordinate with customs and ground service agencies to prepare for arrival. The aircraft commander is final authority on selecting a suitable alternate.

2.5. Aircrew Responsibilities. The aircraft commander is the focal point for interaction between aircrew and mission support personnel. The aircrew must bring any problems or suggestions affecting safety, passenger comfort, or reliability directly to the aircraft commander's attention. The local C2 agency is the focal point for all mission support activities. Aircraft commanders must inform C2 of any factor that may affect mission accomplishment. When transiting a stop without a C2 agency, it is the responsibility of the aircraft commander to ensure necessary mission information is placed into the C2 system by the most expeditious means available.

2.6. Operational C2 Reporting.

2.6.1. The aircraft commander or designated representative will contact the USAFE AMOCC before the first scheduled departure of the day and before mission termination/entering crew rest. Aircrews will also attempt to contact the USAFE AMOCC at each enroute stop, duties permitting. The aircraft commander will establish a point of contact with the local C2 agency, U.S. Embassy, or FBO (if available) before entering crew rest.

2.6.2. The Communications Systems Operator (CSO) will normally report movement information (departure, arrival, or diversion to the appropriate C2 agencies via global HF stations. Mission requirements will dictate the type of enroute communications required. C2 agencies will be periodically updated on mission progress.

2.6.3. C2 agencies may advise aircrews via the controlling ATC agency to establish contact with MAINSAIL when communication is needed.

2.6.4. Arrival Advisory.

2.6.4.1. Aircrews on operational missions transmit arrival advisory to the destination C2 agency or, in the absence of a local C2 agency, to an appropriate responsible agency as soon as practical after departure. Furnish the following information:

2.6.4.1.1. Aircraft call sign

2.6.4.1.2. ETB (estimated time in block)

2.6.4.1.3. Distinguished visitor (DV) status and honors codes (Transmit the DV code of each DV on board). Do not pass the name of the DV on board without the consent of the DV. Out-

side the continental limits of the United States, the name of the DV will not be passed over unsecure radios.

2.6.4.2. Aircrews transmit a UHF or VHF arrival advisory as soon as contact can be established with the destination C2 agency. The following information should be furnished:

2.6.4.2.1. Aircraft call sign

2.6.4.2.2. ETB

2.6.4.2.3. DV code and requirements (see Paragraph [2.6.4.1.](#)).

2.6.4.2.4. Number of passengers

2.6.4.2.5. Hazardous cargo and remote parking requirements

2.6.4.2.6. Additional service required

2.6.4.2.7. Passengers capability for the next mission segment, if applicable

2.6.4.2.8. Fuel and Fleet Requirements

2.6.5. DV Messages. Airborne messages originated by DV passengers may be transmitted at the discretion of the aircraft commander. Classified messages will be coordinated with the CSO before transmission.

2.6.6. Maintenance Discrepancy Reporting. Aircrews should transmit maintenance discrepancies as soon as possible to the USAFE AMOCC. The USAFE AMOCC will coordinate with contract maintenance to arrange maintenance support if required.

2.7. Not Used.

2.8. C2 Agency Telephone Numbers. Units should publish a listing of telephone numbers to assist crews in coordinating mission requirements through appropriate C2 agencies. It should be made readily available to crews by publishing it in **Chapter 10**, the FCB, Read File, or other appropriate publication.

2.9. Close Watch Missions. Close Watch missions are designated missions (e.g., CSAF, aeromedical evacuation (AE), PHOENIX BANNER, AMOCC determined, etc.) which receive C2 special attention. Close Watch procedures are initiated so that all possible actions are taken to ensure on-time accomplishment and notification to the user when delays occur or are anticipated. Promptly notify the appropriate C2 channels of delays, aborts, or other events that affect on-time departure and advise them of the ETIC, new ETD, and ETA or ETB. Notify the C2 within 10 minutes of event and confirm that the user and OPR have been advised.

Chapter 3

CREW MANAGEMENT

3.1. Aircrew Qualification. Primary crewmembers, or those occupying a primary position during flight, must be qualified or in training for qualification for that crew position. If non-current, or in training for a particular event, the crewmember must be under the supervision of an instructor while accomplishing that event (direct supervision for critical phases of flight).

Exception: Senior staff members who have completed a Senior Staff Familiarization course may occupy either pilot seat under direct IP supervision. These individuals will log “FP” for flight Authorization Duty Code on the AFTO Form 781, **AFORMS Aircrew/Mission Flight Data Document**.

3.1.1. Pilots: See AFI 11-401, *Flight Management*, for pilot qualification requirements flying with passengers.

3.1.1.1. Missions With Passengers. With passengers onboard, takeoff, and landings may be accomplished from either seat. Only a pilot that is qualified (current and valid AF Form 8, **Certificate of Aircrew Qualification**) will occupy a pilot’s seat with passengers onboard the aircraft. If non-current, a qualified mission ready (MR) pilot regaining currency may be at the controls provided an IP is directly supervising and at a set of controls.

3.1.1.2. Distinguished visitor (DV) operating procedures (general officers who request to fly the C-20A aircraft):

3.1.1.2.1. Approved by the USAFE/CV.

3.1.1.2.2. Must fly under the supervision of an instructor pilot.

3.1.1.2.3. Must have a valid AF Form 8 for basic qualification on all missions with passengers.

3.1.1.2.4. Must have current IRC and instrument evaluation on all missions.

3.1.1.2.5. When a supported general officer has flight authority and desires to fly and an instructor pilot is available, the local unit will include the general officer on the AFORMS flight authorization. See AFI 11-401, *Flight Management*.

3.1.1.2.6. When a general officer occupies a primary crew position on an operational mission, an additional pilot will accompany the mission.

3.1.1.2.7. These individuals will log “FP” for Flight Authorization Duty Code on the AFTO Form 781, **AFORMS Aircrew/Mission Flight Data Document**.

3.1.2. Aircrew supervisors and schedulers will assess tasked missions and match the aircrew’s skill, qualification, experience, and proficiency with the mission difficulty. The Sq/DO may require specific aircrew qualification for missions that have unique requirements, involve unusual hazards, or require previous exposure for safe execution.

3.2. Crew Complement. Crew complement for a basic operational mission is one Aircraft Commander (AC), one Copilot (CP), one Flight Mechanic (FM) (Flight Engineer once crew position converted), one Flight Attendant (FA) and when mission requirements dictate, one Communication Systems Operator (CSO). There are no augmented C-20A crews. See **Table 3.1.** for mission specific crew requirements.

Table 3.1. C-20A Crew Complement.

Aircraft Commander (AC)	1	
Copilot (CP)	1	
Flight Mechanic (FM)—Flight Engineer (FE)	1	<i>NOTE 1</i>
Communications systems operators (CSO)	1	<i>NOTE 2</i>
Flight Attendant (FA)	1	<i>NOTE 3</i>

NOTE 1: Flight Mechanic not required for local training flights if a qualified third pilot is on board the aircraft. A qualified FM should accomplish the first full pre-flight of the day for local training sorties. Once the Flight Mechanic crew position is converted to Flight Engineer, this note no longer applies.

NOTE 2: Required only for missions needing special communication equipment capability.

NOTE 3: Required for all passenger missions.

3.3. Scheduling Restrictions. Crewmembers will not be scheduled to fly nor will they perform crew duties:

3.3.1. When the maximum flying time limitations of AFI 11-202V3, (125-hours per 30 consecutive days and 330-hours per 90 consecutive days) will be exceeded.

3.3.2. After consuming alcoholic beverages within 12-hours of takeoff or when under the influence of alcohol.

3.3.3. After consuming alcoholic beverages within 12-hours before assuming ALFA/BRAVO standby force duty.

NOTE:

Do not takeoff early (before scheduled departure time) if the early takeoff time would violate these restrictions.

3.3.4. Within 72-hours of donating blood. The flying unit commander must approve the donation of blood by crewmembers in a mobility assignment or who are subject to flying duties within this 72-hour period. Crewmembers should not normally donate blood.

3.3.5. When taking oral or injected medication unless individual medical waiver has been granted by the Command Surgeon. Crewmembers may not self medicate except IAW AFI 48-123, *Medical Examinations and Standards*. The following is a partial list of medications, which may be used without medical consultation:

3.3.5.1. Skin antiseptics, topical anti-fungals, 1 percent Hydrocortisone cream, or benzoyl peroxide for minor wounds and skin diseases which do not interfere with the performance of flying duties or wear of personal equipment.

3.3.5.2. Single doses of over-the-counter aspirin, acetaminophen or ibuprofen to provide analgesia for minor self-limiting conditions.

3.3.5.3. Antacids for mild isolated episodes of indigestion.

3.3.5.4. Hemorrhoidal suppositories.

3.3.5.5. Bismuth subsalicylate for mild cases of diarrhea.

3.3.5.6. Oxymetazoline or phenylephrine nasal sprays may be used by aircrew as “get me downs” should unexpected ear or sinus block occur during flight. These should not be used to treat symptoms of head congestion existing before flight.

3.3.6. Within 24-hours of compressed gas diving (including scuba), surface supplied diving, or hyperbaric (compression) chamber exposure and aircraft pressurization checks that exceed 10 minutes duration.

3.3.7. Within 12-hours after completion of a hypobaric (altitude) chamber flight above 25,000-feet. Personnel may fly as passengers in aircraft during this period, provided the planned mission will maintain a cabin altitude of 10,000-feet MSL or less. For altitude chamber flights to a maximum altitude of 25,000-feet or below, aircrew members may fly immediately as crewmembers or passengers if their cabin altitude does not exceed 15,000-feet.

3.4. Alerting Procedures. USAFE C-20A crews will normally self-alert. If positive alerting is required, it must be coordinated with the aircraft commander before entering crew rest. **A self-alerting crew will not be switched to C2 alerting within the last 12-hours of crew rest.**

3.4.1. Crew alerts will normally be 3 hours before scheduled takeoff time to allow 1-hour for reporting and 2-hours for mission preparation. Mission preparation time may be reduced to a minimum of 1 and 1/2-hours through coordination with the 76 AS/DO, the aircraft commander, and the controlling agency. The AC may establish other reporting times as required for mission accomplishment, e.g. scheduled mission departure time changes, etc. Alerting more than 3-hours before takeoff to provide additional reporting or mission preparation time is authorized when essential for mission accomplishment. Late alerting is also authorized; however, all requests for changes to standard alerting times must be coordinated through the appropriate C2 Center.

3.4.2. A crew will not be alerted until the aircraft is in commission or there is reasonable assurance that the estimated time in commission (ETIC) will meet the proposed takeoff time.

3.4.3. Aircrew Release Procedures:

3.4.3.1. On the aircrew’s initial entry or reentry into crew rest, the controlling C2 agency (or aircraft commander for self-alert) will establish an expected alert time. The crew will not be alerted or otherwise disturbed before this time except for emergencies.

3.4.3.2. The latest allowable alert time will be 6-hours after the expected alert time for all missions. If circumstances warrant, the aircraft commander may extend the window to a maximum of 8-hours. (When advised the crew will be deadheading, the aircraft commander may extend the window to 12-hours.) **The controlling C2 agency will not request the aircrew accept more than a 6-hour window.**

3.4.3.3. If the controlling C2 agency determines a crew will not be alerted in the allowable time span, at the time of determination, (but no earlier than the crews expected alert time) the controlling C2 agency will reenter the crew into crew rest of not less than 12 hours and establish a new expected alert time.

3.4.3.4. When the latest allowable alert time expires without being alerted, the crew reenters crew rest of not less than 12-hours. The aircraft commander will contact the C2 agency to determine the new expected alert time.

3.5. Not Used.

3.6. Crew Duty Time (CDT) and Flight Duty Period (FDP).

3.6.1. CDT is the amount of time an aircrew may perform combined flight and ground duties. For planning purposes, CDT normally consists of FDP plus 45-minutes, not to exceed the maximum CDT. When post flight duties exceed 45-minutes, CDT is FDP; in addition, the time required completing the post-flight duties and does not end until these duties are complete. These duties include up or down loading, servicing, debriefing, mission planning, etc. Post flight duties will not be performed after the maximum CDT has expired. Except when authorized by unit commanders at home station or enroute locations, crewmembers will not be used for mission related duties supporting other missions; i.e. to preflight other aircraft.

3.6.2. FDP is the time between mission reporting and engine shutdown following completion of the final mission segment. The mission directive or controlling C2 will establish the length of FDP.

3.6.3. CDT and FDP both begin at crew reporting time or 1-hour after alert. **EXCEPTIONS:**

3.6.3.1. Self-alerts: CDT and FDP begin at scheduled or established mission reporting time.

3.6.3.2. ALFA standby: CDT and FDP begin when the crew is directed to launch.

3.6.3.3. BRAVO standby: CDT and FDP begin when the crew shows for duty.

3.6.3.4. Crewmembers performing other duties before flight related duties: CDT and FDP begin when reporting for other duties.

3.6.3.5. Crewmembers alerted early to perform mission-related duties: CDT and FDP begin when reporting for these duties.

3.6.4. Augmented Crew. None. USAFE C-20A does not have in-flight crew rest facilities for an augmented crew capability and all references to FDP and CDT are for basic crew.

3.6.5. Crew FDP:

3.6.5.1. Maximum FDP is 16+00-hours. (12-hours without an operative autopilot pitch axis).

3.6.5.2. Maximum CDT is 16+45 hours.

3.6.6. Training FDP:

3.6.6.1. Maximum FDP for training missions is 15+15hours.

3.6.6.2. Simulated emergencies, practice approaches, and touch and go landings are only authorized during the first 12-hours of the CDT.

3.6.7. If the autopilot fails after departure, continue to the next stop, notify the USAFE AMOCC when able, and comply with the preceding limitations.

3.6.8. Deadhead Time. Duty time for crewmembers positioning or de-positioning for a mission or mission support function and not performing crew duties.

3.6.8.1. Deadhead crewmembers not performing crew duties before or after deadheading will not exceed a 24-hour FDP.

3.6.8.2. Crewmembers may perform primary crew duties after deadheading if they will not exceed their FDP for the mission to be flown beginning at reporting time for the deadhead flight

3.6.8.3. Crewmembers may deadhead following primary crew duties if they will not exceed a 24-hour FDP beginning at reporting time for primary crew duties.

3.6.9. CDT/FDP Extensions. See AFI 11-202V3. The aircraft commander (PIC) may extend maximum flight duty period by waiver from USAFE/DO (requested through the USAFE AMOCC) provided the mission priority justifies the risk. The PIC may extend FDP a maximum 2-hours only if the crew is unable to contact the USAFE AMOCC for waiver coordination with the USAFE/DO. USAFE/DO is the waiver authority for extensions beyond two-hours or request for waiver before mission execution. Waivers are not normally authorized for missions under the operational control of the home unit (locals). If a waiver is required on a local mission due to urgent situational factors, the 86 OG/CC or equivalent is designated waiver authority.

3.6.10. Flight examiners administering evaluations will not exceed a 16+00 hour FDP.

3.7. Crew Rest and En Route Ground Times.

3.7.1. Home-Station Pre-departure Crew Rest. All primary and deadhead crewmembers should enter crew rest. Do not manifest deadhead crewmembers as passengers to reduce or eliminate crew rest requirements.

3.7.1.1. Alert. Enter crew rest 12-hours before "legal for alert."

3.7.1.2. Mission off-station for less than 14-hours. Enter crew rest 12-hours before reporting time (self-alert) or alert time.

3.7.1.3. Mission off-station for more than 14-hours. Enter crew rest 24-hours before reporting time (self-alert) or alert time. Crewmembers may perform limited non-flying duties, including mission planning, during the first 12-hours of this period.

3.7.2. En route Crew Rest and Ground Time.

3.7.2.1. Crew rest normally begins 45-minutes after final engine shutdown. The 45-minute period provides crews with time to complete normal post-flight duties. These duties include, but are not limited to, refueling, up and down loading of cargo, performing maintenance, or completing mission debriefings. The aircraft commander may modify this period to extend the FDP after considering mission requirements upon landing and destination capabilities.

3.7.2.2. If any crewmember must stay at the aircraft past the 45-minute period, crew rest does not begin until post-flight duties are completed.

3.7.2.3. Minimum crew rest period is 12-hours and includes deadhead crews. This period provides the crew a minimum of 8-hours of uninterrupted rest plus time for transportation, free time, and meals. The crew will not normally be disturbed during this period, except during emergencies. Should the 12-hour crew rest period be infringed upon by official duties, the crew will enter crew rest for an additional 12-hours on completion of the official duties.

3.7.2.4. Aircrews are not required to maintain alert status during scheduled ground times. However, aircraft commanders must know their crewmembers' planned activities and locations during the entire ground time. Aircraft commanders are expected to coordinate mutually acceptable contact times with the USAFE AMOCC and/or mission POC.

3.7.2.5. A minimum 15+45 ground time between engine shutdown and mission takeoff should normally be planned unless extended post flight duties are anticipated. This allows for 45 minutes

post flight duties, 12-hours rest, one-hour to show, and two-hours to takeoff. The time between show and takeoff may be shortened to 1+30 for a minimum time of 15+15, when requirements dictate. The controlling agency must coordinate this with the unit and aircraft commander.

3.7.2.6. The aircraft commander may modify normal ground time:

3.7.2.6.1. In the interest of safety.

3.7.2.6.2. To no less than 12-hours from the start of crew rest until mission reporting. Before reducing normal ground time, consider mission preparation time, passenger loading, and other factors peculiar to the mission.

3.7.2.6.2.1. The USAFE AMOCC will not ask the aircraft commander to accept less than a normal ground time. Waivers for exercises and contingencies are according to AFI 11-202,V3.

3.7.2.6.3. To a maximum of 36-hours, when the crew has completed three consecutive near maximum FDPs.

NOTE:

Flight crews should be afforded crew rest in excess of the minimum at en route stations, when possible, to give crews the opportunity to overcome the cumulative affects of fatigue while flying on several consecutive days or transiting several time zones.

3.7.2.7. ACs may request Crew Enhancement Crew Rest (CECR) when they desire a later legal for alert time to normalize the crew work-rest cycle or enhance messing options immediately before crew alert. To minimize adverse effects on established schedules, aircraft flow, and capability, CECR requests should be of minimum duration and normally be limited to de-positioning legs. Send requests through the USAFE AMOCC for approval decision. When requests are disapproved, the USAFE AMOCC will notify the AC of the reason for disapproval. CECR is not an alternative to a "safety of flight" delay and should not be used as such. If the AC deems extra crew rest is necessary for continued safe flight and mission accomplishment, the AC has the responsibility to declare safety of flight when the situation warrants.

NOTE:

Flight crews should be afforded crew rest times in excess of the minimum at en route stations, when possible, to give crews the opportunity to overcome the cumulative affects of fatigue while flying on several consecutive days or transiting several time zones.

3.7.3. Post-Mission Crew Rest (PMCR).

3.7.3.1. Crewmembers, returning to their home base, will be given sufficient time to recover from the cumulative effects of their deployed mission and tend to personal needs. PMCR begins immediately on mission termination.

3.7.3.2. Provide one-hour of PMCR time (up to a maximum of 96-hours) for each 3-hours TDY when the duty exceeds 16-hours away from home-station. This time is in addition to and will not run concurrently with pre-departure crew rest. (Not applicable to continuing missions or when crew member notified of back-to-back missions before departing home station.)

3.7.3.3. The 86 OG/CC or acting representative is designated PMCR waiver authority and will not delegate this authority below the 86 OG/CC level. Limit PMCR waivers to extraordinary circumstances only and must not be used for day-to-day operations.

3.7.4. Crews will re-enter crew rest if their aircraft or mission (training or operational) is not capable of departure within 4-hours from scheduled takeoff time. Exceptions will be granted only with the concurrence of the AC.

3.7.5. Crew rest waivers approved for exercises and contingencies will be published in the OPORD or OPLAN.

3.7.6. The minimum ground time en route, for a continuing mission will normally be 1+15. Planners should use 1+30 at heavy traffic commercial airfields and locations with known fueling delays. Shorter ground times may be scheduled before mission execution with the concurrence of the unit operations officer and the aircraft commander. Normally, scheduled ground times for refueling stops on transoceanic missions (CYQX, CYHZ, or CYR) will be 30-minutes.

3.7.7. Enroute Billeting. **In order to assure rapid response, crew integrity is a mission requirement.** Billet all crewmembers at the same base or in the same hotel complex. If crewmembers are billeted at separate on-base locations, the aircraft commander and the senior enlisted crewmember or flight mechanic must have telephones in their rooms. Consider Government Quarters unsuitable if the above requirements cannot be met, if the crew cannot respond to short-notice or alert mission changes, or if adequate uninterrupted crew rest is not possible.

3.8. Standby Force Duty.

3.8.1. Types of Standby Forces:

3.8.1.1. ALFA Standby Force. An aircraft and aircrew capable of launching in 1-hour. Crewmembers are given 12-hours of pre-standby crew rest after aircraft preflight. A crew will not stay on ALFA standby duty for more than 48-hours. After 48-hours, the crew must be launched, released, or entered into pre-departure crew rest. CDT begins when the crew is directed to launch.

3.8.1.2. BRAVO Standby Force. An aircraft or aircrew capable of launching in 3-hours (from the time the unit is directed to launch). Crewmembers are given 12-hours of pre-standby crew rest. Crews are legal for alert after pre-standby crew rest. Preflight duties, if required, interrupt crew rest. A crew will not stay on BRAVO standby duty for more than 48-hours. After 48-hours, the crew must be launched, released, or entered into pre-departure crew rest. CDT begins when the crew shows for duty. If a crew is conducting a pre-flight when the unit is directed to launch the mission, CDT will begin when the crew first reported for that duty.

3.8.1.3. CHARLIE Standby Force. An identified aircrew capable of entering crew rest within 2-hours (after their controlling unit is notified). This aircrew would become legal for alert 12-hours after entering crew rest. Charlie alert will not exceed 72-hours. If retained for a 72-hour period, crewmembers will be released for 12-hours before resuming CHARLIE Standby Force duty, entering crew rest for mission, or entering pre-standby crew rest for ALFA or BRAVO Standby Force duty.

3.8.1.4. Wing Standby Forces. Unit commanders may establish standby forces. Crewmembers are given normal pre-departure crew rest. Standby duty time is limited to 12-hours. Crews will receive at least 12-hours of crew rest before another 12-hours of standby duty.

3.8.2. Standby Force Crew Management. Commanders will not use a standby crew to preflight other than their own standby aircraft, or to do any non-mission duties while on standby.

3.8.3. Post-Standby Missions. On completion of standby duty, aircrew members may be dispatched on a mission.

3.8.3.1. Standby duty and pre-departure crew rest may be concurrent if notification is provided at least 12-hours before alert or mission reporting time (self-alert).

3.8.3.2. If started, post-standby crew rest must be completed before the start of pre-departure crew rest.

3.8.3.3. If an aircrew member is dispatched on a mission, compute the PMCR time on standby time plus mission time.

3.8.4. Post-Standby Crew Rest. Aircrew members not dispatched on a mission following standby duty will receive post-mission standby crew rest as follows:

3.8.4.1. If standby duty is performed away from normal quarters, crew rest time is computed from this standby time on the same basis as for mission time.

3.8.4.2. If standby duty was performed in normal quarters, no crew rest time is authorized.

3.8.5. ALFA Standby Aircraft Security. Each unit will complete a maintenance and aircrew preflight inspection when they put an aircraft on ALFA standby status. The aircraft commander will ensure the aircraft is secured before entering crew rest. Secure all hatches and doors to show unauthorized entry. Close and lock the crew entrance door. The command post must grant permission before persons entering an aircraft once the plane is sealed. Ensure standby aircraft is resealed any time the aircraft has been opened. The aircraft commander or designated representative must be present if access to his or her assigned aircraft is required.

3.9. Orientation Flights and Incentive Flights. Refer to DoD 4515.13-R, AFI 11-401, and USAFE supplement.

3.10. Interfly. 89 AW and 21AF/DOV operate the C-20 aircraft and may interfly with 86 AW upon agreement of HQ USAFE/DOV, 86 OG/CC, 21AF/DOV and 89 OG/CC. Lead command evaluators may also augment USAFE inspection teams upon request.

3.10.1. Interfly is the exchange and/or substitution of aircrew members and/or aircraft between mobility units to accomplish flying missions. Normally, interfly should be limited to specific operations, exercises, or special circumstances but, may be used to relieve short-term qualified manpower shortfalls. During contingencies, exercises, or designated "interfly" missions, interfly operations will be conducted under the following conditions or as specified in the OPLAN or CONOPS.

3.10.2. When approved, interfly during normal day-to-day operations under the following conditions:

3.10.2.1. Aircraft ownership will not be transferred.

3.10.2.2. As a minimum, crews will be qualified in the MDS and model as well as systems or configuration required to fly the aircraft and/or mission.

3.10.2.3. During interfly, crewmember(s) will follow "basic" operational procedures and must thoroughly brief MAJCOM-specific items.

3.10.2.4. Initiate interfly approval request by the unit or agency requesting the agreement by memo or message format to the 86 OG/CC controlling the resource. Each commander involving resources (personnel or aircraft) (or MAJCOM, if appropriate) must concur with interfly proposal. Request must include details of the deployment or mission including; aircrew name(s), duration, or special circumstances.

3.10.2.5. Flight Mishap accountability is MAJCOM designated by PEID code for mishap aircraft.

3.10.2.6. Ground Mishap accountability in accordance with AFI 91-204, *Safety Investigations and Reports*.

Chapter 4

AIRCRAFT OPERATING RESTRICTIONS

4.1. Objective. The ultimate objective of the aircraft maintenance team is to provide an aircraft for launch with all equipment operational (Fully Mission Capable, FMC). Manpower limitations, skills, and spare part availability have a negative and direct impact on mission accomplishment. However, some redundant systems allow safe operation with less than all equipment operational for certain missions under specific circumstances. The aircraft commander, using the following policies, determines an overall status of an aircraft. Use the following maintenance identifiers to effectively communicate an status of an aircraft:

4.1.1. Mission Essential (ME). An item, system, or subsystem component essential for safe aircraft operation or mission completion will be designated Mission-Essential (ME) by the aircraft commander in AFTO Form 781A, **Maintenance Discrepancy and Work Document**. Include a brief explanation of the reason for ME status in the AFTO Form 781A discrepancy block. An aircraft commander accepting an aircraft (one mission or mission segment) without an item or system does not commit that aircraft commander (or a different aircraft commander) to subsequent operations with the same item or system inoperative.

4.1.2. Mission Contributing (MC). Any discrepancies that are not currently designated ME, but may become ME (if circumstances change), are designated as MC in the AFTO Form 781A discrepancy block. Every effort will be made to clear the MC discrepancies at the earliest opportunity to the extent that maintenance skills, ground time, and spare part availability permit. If subsequently, in the AC's judgment, mission safety would be compromised by the lack of any component, he may re-designate the said component as ME. However, do not delay a mission to correct an MC discrepancy.

4.1.3. Open Item. Discrepancies not expected to adversely impact the current mission or any subsequent missions that are not designated MC or ME. These items receive low priority and are normally worked at home station. Do not accept an aircraft from factories, modification centers, or depots unless all instruments are installed and operative.

4.1.4. Aircraft attitude, vertical velocity indications, altitude, speed, and heading instruments should be operative in both pilot positions. Comply with AFI 11-202V3 restrictions.

4.2. Policy. It would be impractical to prepare a list that would anticipate all possible combinations of equipment malfunction and contingent circumstances. The aircraft flight manual lists equipment and systems considered essential for flight.

4.2.1. The aircraft commander is responsible for exercising the necessary judgment to ensure that the aircraft is not dispatched with multiple items inoperative that may result in an unsafe degradation and/or an undue increase in crew workload. The possibility of additional failures during continued operation with inoperative systems or components shall also be considered. This chapter is not intended to allow for continued operation of the aircraft for an indefinite period with systems/subsystems inoperative.

4.2.2. If, after exploring all options, an aircraft commander determines a safe launch is possible with an item inoperable (beyond a particular restriction) the aircraft commander shall request a waiver.

4.3. Waiver Protocol. Waiver to operate with degraded equipment or waiver to USAF policy exceeding this chapter may be granted on a case-by-case basis and only in exceptional circumstances. Waiver authority is based on “who” has operational control and execution of the aircraft performing a specific mission. The aircraft commander determines the need for a waiver. If waiver process, authority, or protocol is in doubt--contact the USAFE AMOCC or appropriate USAFE/DOV or 86 OG/OGV.

4.3.1. Local Training Missions (executed by 86 OG/CC or equivalent). Waiver authority for flying local missions is the 86 OG/CC or equivalent.

4.3.2. USAFE AMOCC-Directed Missions. Waiver authority for USAFE AMOCC-directed missions controlled by the USAFE AMOCC is HQ USAFE/DO.

4.3.3. Other Missions (Contingencies). Waiver authority is listed in the OPORD/Tasking Order, etc., or the DIRMOBFOR (or equivalent) for the agency with C2 of the aircraft. Crewmembers may request additional assistance or confirmation from their home units or USAFE/DO through the USAFE AMOCC.

4.4. Technical Assistance Service. The aircraft commander may request (at anytime in the decision process) technical support and additional assistance from their home unit, USAFE AMOCC/staff, and maintenance representatives.

4.4.1. Aircraft commanders electing to operate with degraded equipment or aircraft systems (with appropriate waiver) must coordinate mission requirements (i.e. revised departure times, fuel requirements, maintenance requirements, etc.) with the USAFE AMOCC before flight.

4.4.2. When it is necessary to protect the crew or aircraft from a situation not covered by this AFI and immediate action is required, the aircraft commander may deviate from this chapter. Report deviations (without waiver) through 86 OG/OGV to the USAFE/DO within 48-hours. Units must be prepared to collect background information and submit a follow-up written report upon request.

4.5. Minimum Equipment List (MEL). There is no officially published, Air Force-approved MEL for the C-20A aircraft. The flight manual contains operational equipment and systems considered essential for safe flight.

4.6. Gear Down Flight Operations. During peacetime, gear down flight operations will be limited to those sorties required to move the aircraft to a suitable repair facility. Gear down flight should only be considered and approved after all avenues to repair the aircraft have been exhausted. Each gear down sortie must be approved by the USAFE/DO.

4.6.1. Standard climb-out flight path charts in T.O. 1C-20A-1-1 are not applicable to gear-down flights. Takeoff will not be attempted unless there is reasonable assurance that adequate obstacle clearance can be maintained. This limitation must be considered when planning en route stops and alternates.

4.6.2. Takeoff data should be validated by 86 OG/OGV, time and communications capability permitting.

Chapter 5

OPERATIONS PROCEDURES

5.1. Checklists. Accomplish all checklists with strict discipline. Normally, the flight mechanic will read the checklist. A checklist is not complete until all items have been accomplished. Momentary hesitations for coordination items, ATC interruptions, and deviations specified in the flight manual, etc, are authorized. Notes amplifying checklist procedures or limitations may be added to the checklists (in pencil).

5.1.1. Checklist Inserts. Units may supplement T.O. guidance with USAFE/DOV or OGV-approved checklist inserts. These inserts may be placed at the end of the appropriate checklist or in an in-flight guide. All checklist inserts must have a unit-level POC. If any crewmember has a recommendation or change, they should contact the POC. The POC will consolidate inputs and submit changes to USAFE/DOV or OGV for approval. Local in-flight guides and inserts not affecting T.O. guidance and procedures may be locally developed and approved by 86 OG/OGV.

5.2. Duty Station. A qualified pilot will be in control of the aircraft at all times during flight. **EXCEPTION:** Unqualified pilots undergoing qualification training and senior staff members who have completed the Senior Staff Familiarization Course--the instructor pilot may leave the duty station briefly during the cruise portion of flight to meet physiological needs. The aircraft commander and copilot will be at their duty stations during all takeoffs, approaches, and landings. During other phases of flight, crew members may leave their duty station to meet physiological needs and to perform normal crew duties. Only one pilot may be absent from their duty station at a time. The FM should remain at his station if only one pilot is in the seat. Comply with AFI 11-202V3 oxygen requirements when one pilot is out of the seat.

5.3. Flight Station Entry. Passengers are not allowed in either pilot seat at anytime. Aircraft commanders may authorize DVs, passengers or observers to occupy the FM's seat during any phase of flight. Approved contractor maintenance personnel may perform taxi operations from either pilot seat in accordance with contract specifications and the flight manual.

5.4. Takeoff and Landing Policy. After thoroughly evaluating all conditions (DV status and comfort level, weather, type of approach to be flown, and crewmember experience), the aircraft commander will determine who accomplishes the takeoff and landing and may occupy either the left or the right seat during all takeoffs and landings. Comply with the Airfield Suitability and Restrictions Report (ASRR), if applicable. For flights with passengers, see Paragraph **3.1.1.**

5.4.1. A qualified aircraft commander will accomplish all approaches and landings under actual emergency conditions unless specific conditions dictate otherwise.

5.4.2. On operational missions with passengers aboard, flying circling maneuvers as close as possible to VFR traffic pattern altitudes is preferred over practicing at circling minimums.

5.4.3. Multiple approaches and landings on active mission legs with passengers are not authorized.

5.4.4. Multiple approaches and landings may be performed when mission directive specifies training authorized and there are no passengers aboard.

5.4.5. Multiple approaches on non-mission legs with space available passengers are authorized provided they are thoroughly briefed before being manifested, to include total number of approaches and additional flying time planned. No touch and go landings or simulated emergencies will be performed with passengers aboard.

5.5. Not used.

5.6. Outside Observer. When available, use a crew member to assist in outside clearing during all taxi operations and while airborne, any time the aircraft is below 10,000-feet MSL. Do not hesitate to deplane a crew member if taxiing operations are suspect.

5.7. Seat Belts.

5.7.1. All occupants will have a designated seat with a seat belt. Use of seat belts will be as directed by the aircraft commander and the flight manual.

5.7.2. Crew members will be seated with seat belts and shoulder harnesses fastened during taxi, take-off, and landing, unless crew duties dictate otherwise. **EXCEPTION:** Crew members may taxi without the shoulder harnesses fastened for positioning and de-positioning the aircraft.

5.7.3. Crew members will have seat belts fastened at all times in-flight, unless crew duties dictate otherwise.

5.7.4. When children under the age of two are accepted as passengers, their sponsor must provide their own approved Infant Car Seat (ICS). Passengers may hand-carry infant car seats. These seats will be secured to a seat using the seat belt. Adults will not hold infant seats during any phase of flight.

5.8. Aircraft Lighting. IAW AFI 11-202V3, AFI 11-218, and the flight manual.

5.9. Portable Electronic Devices. In accordance with AFI 11-202V3:

5.9.1. Unauthorized equipment (Walkman type radios/tape players, CD players, etc.) will not be connected to the aircraft intercom, PA, or radio systems.

5.9.2. USAFE may authorize subordinate units to allow the use of electronic recording equipment below 10,000-feet when required for a public affairs mission involving civilian media personnel. The following restrictions apply:

5.9.2.1. The AC will be fully briefed on what equipment will be used and when.

5.9.2.2. Aircraft flying below 10,000-feet will maintain visual meteorological conditions when the equipment is operating.

5.9.2.3. Any crewmember may order the equipment turned off for any reason (i.e. interference detected.)

5.9.3. USAF organizations providing electronic support to public affairs will adhere to the requirements in Paragraph **5.9.5.**

5.9.4. The following devices are authorized anytime: Hearing aids, heart pacemakers, electronic watches, hand-held non-printing calculators, portable voice recorders, and certified operator equipment (according to Paragraph 5.9.5.).

5.9.5. If mission requirements dictate the operation of non-transmitting portable equipment during any phase of flight or operation of a device not included in Paragraph 5.9.4., the equipment or device must meet RE102 and CE102 requirements of Mil-Std-461D, or methods, when tested according to Mil-Std-462D. Technical guidance and data evaluation is available from ASC/ENAI, 2450 D Street, Suite 2 WPAFB OH 45433-7630, DSN 785-2737. The AC must be aware that equipment is operating.

5.10. Smoking Restrictions. Smoking or use of tobacco products are prohibited on board the aircraft.

5.11. Advisory Calls. Pilots will periodically announce their intentions when flying departures, arrivals, approaches, and when circumstances require deviating from normal procedures.

5.11.1. Mandatory altitude calls for the pilot not flying (PNF) the aircraft:

5.11.1.1. Non-precision Approaches:

5.11.1.1.1. 100-feet above minimum descent altitude (MDA).

5.11.1.1.2. "Minimums" at MDA.

5.11.1.1.3. "Runway in sight." Call when the runway environment is in sight.

5.11.1.1.4. "Go-around." Call at missed approach point if the runway environment is not in sight or if the aircraft is not in a position for a safe landing.

5.11.1.2. Precision Approaches:

5.11.1.2.1. 100-feet above decision height (DH).

5.11.1.2.2. "Continue." Call at decision height if the runway environment is in sight and the aircraft is in a position to continue the approach.

5.11.1.2.3. "Go-around." Call at decision height if the runway environment is not in sight or if the aircraft is not in a position for a safe landing.

5.11.1.3. Climb Out:

5.11.1.3.1. Transition altitude.

5.11.1.3.2. 1,000-feet below assigned altitude.

5.11.1.4. Descent:

5.11.1.4.1. Transition level.

5.11.1.4.2. 1,000-feet above assigned altitude.

5.11.1.4.3. 1,000-feet above initial approach fix altitude or holding altitude.

5.11.1.4.4. 100-feet above procedure turn and final approach fix altitude.

5.11.2. Crew members will announce deviations in heading, airspeed or altitude (100-feet or more) when observed.

5.11.3. Pilots and FM will announce the activation or change of any system unless it will interfere with crew duties.

5.12. Communications Policy. The Air Force does not promise confidentiality to aircrews regarding their recorded aircraft crew communications. Crew members are expected to maintain a high degree of cockpit professionalism and crew coordination at all times.

5.12.1. Sterile Cockpit. Limit conversation to that essential for crew coordination and mission accomplishment during taxi, takeoff, approach, landing, and any flight below 10,000-foot MSL (except cruise).

5.12.2. Aircraft Interphone. Classified information should not be discussed on interphone.

5.12.3. Command Radios:

5.12.3.1. The PNF normally makes all ATC radio calls.

5.12.3.2. In terminal areas, the pilot and copilot will monitor the primary command radio unless coordinated otherwise. One designated crewmember should monitor C2 frequencies (if applicable) on the inbound and outbound leg, unless otherwise directed (normally the FM).

5.12.3.3. The pilot operating the command radios will inform the other pilot and FM when the primary radio is changed.

5.12.3.4. One pilot should record and will acknowledge all ATC clearances.

5.12.3.5. Both pilots will monitor UHF guard (or VHF guard when appropriate) emergency frequency regardless of primary radio.

5.12.4. Crew Resource Management (CRM) Assertive Statement “Time Out”:

5.12.4.1. “Time Out” is the common assertive statement for use by all crew members. The use of “Time Out” will:

5.12.4.1.1. Provide a clear warning sign of a deviation or loss of situational awareness.

5.12.4.1.2. Provide an opportunity to break the error chain before a mishap occurs.

5.12.4.1.3. Notify all crew members that someone sees the aircraft or crew departing from established guidelines, the briefed scenario, or that someone is simply uncomfortable with the developing conditions.

5.12.4.2. As soon as possible after a “Time Out” has been called, the aircrew will take the following actions:

5.12.4.2.1. Safety permitting, stabilize the aircraft.

5.12.4.2.2. The initiating crewmember will voice his or her concerns to the crew.

NOTE:

The aircraft commander is the final decision authority. “Time Out” will not be used in lieu of established procedures.

5.13. Transportation of Pets. Transporting pets (dogs and cats) in conjunction with the sponsors permanent change of station is authorized. Other pets or animals are normally prohibited, but may be moved according to DoD 4515.13R, *Air Transportation Eligibility*.

5.14. Alcoholic Beverages. Passengers may consume alcoholic beverages purchased from the FA on selected missions as determined by the 76 AS/CC. Passengers are not authorized to open their own alcohol containers brought on board the aircraft. Passengers will be denied alcoholic beverage service if, in the judgement of the FA, they appear to be intoxicated, or if their behavior is in any way offensive, abusive, or raises questions of safety. Whenever possible during flight, the FA should solicit the concurrence of the aircraft commander before taking action.

5.15. Runway, Taxiway, and Airfield Requirements. Comply with the weather and runway limits listed below.

5.15.1. Wind Restrictions. Airfields will be considered below minimums for takeoff and landing when winds (including gusts) are greater than established below.

5.15.1.1. Maximum operating wind 50 knots.

5.15.1.2. Maximum tailwind component 10 knots.

5.15.1.3. Crosswinds—Maximum takeoff and landing crosswind component for a dry runway (RCR 23) is 30 knots. Maximum takeoff and landing crosswind components, corrected for RCR, are shown in **Table 5.1**. Maximum crosswind limitations for touch and go landings on a wet runway (RCR 12) is 21 knots.

5.15.1.4. Actual CAT II ILS approaches 10 knots.

5.15.1.5. Practice CAT II ILS approaches 15 knots.

5.15.2. RCR and RSC Limitations. Use RCR values as prescribed by the aircraft flight manual. If a value is not reported, use RCR 12 for wet runways and RCR 5 for icy runways. Conversions from other braking action standards to RCR should be according to applicable DoD FLIP documents.

5.15.2.1. For operation on wet, ungrooved runways, use RCR designated as “wet” in the aircraft flight manual for all takeoff and landing data. For operations on grooved runways, use the reported RCR.

5.15.2.2. When RCR and RSC reporting is not available, flight crews are to consider a runway surface as wet when there is sufficient water on the surface to cause a reflective glare, or when rain is falling.

5.15.2.3. Do not use runways with a reported RCR less than five.

Table 5.1. C-20A Takeoff and Landing Crosswind Components.

RCR VALUES	5	6	7	8	9	10	11*
Crosswind Component for Takeoff and Landing	7	10	12	15	17	20	22
*See appropriate performance manual for RCR 12 and above.							

5.15.3. Runway Length and Width Requirements:

5.15.3.1. Minimum Runway Length. Minimum runway length is 5,000ft/1,525m or 6,000ft/1,830m for touch-and-go (**NOTE:** Lengths consider dry surfaces only). If operationally neces-

sary, the 86 OG/CC may approve use of runways shorter than specified. When requesting a waiver, provide the 86 OG/CC applicable performance computations. Request waivers through 86 OG/OGV. If operations are approved (on runways less than 5,000ft/1,525m), an instructor pilot or flight examiner will make the landing and takeoff from the left seat.

NOTE:

Lengths consider dry surfaces only. Landing on wet/contaminated runways may require longer a runway.

5.15.3.2. Takeoff and Landing Data Considerations.

5.15.3.2.1. Do not attempt takeoff if runway available is less than the balanced field length (BFL). Use greater of accelerate-and-stop or accelerate-and-go distance.

5.15.3.2.2. Normally, takeoffs will be initiated from the beginning of the approved usable portion of the runway. The decision to make intersection takeoffs rests solely with the aircraft commander. Intersection takeoffs may be accomplished provided the operating environment (i.e., gross weight, obstructions, climb criteria, weather, etc.) will allow a safe takeoff and departure.

5.15.3.2.3. When less than the entire runway is used, Takeoff and Landing Data (TOLD) card computations will be based on the actual runway remaining from the point at which the takeoff is initiated.

5.15.3.2.4. If approach end overruns are available and stressed or authorized for normal operations, they may be used to increase the runway available for takeoff. Departure end overruns (if stressed and authorized) may also be used for landing if needed.

5.15.3.2.5. The minimum required runway for landing, corrected for RCR, is in accordance with the flight manual. Compute landing distance with no reverse thrust. **NOTE:** If runway available for landing is less than required in Paragraph 5.15.3.1., use landing ground roll plus 1,000-feet if reported weather is equal to or greater than circling minimums and authorized by 86 OG/CC. Modify approach and flare to touchdown within the first 500-feet of runway.

5.15.3.2.6. Minimum runway width is 50-feet. Minimum taxiway width is 25-feet.

5.15.4. Airfield Suitability and Restrictions Report (ASRR). Aircrews and planning agencies will contact USAFE AMOCC/XOPA and/or HQ AMC/DOVS for all questions pertaining to airfield weight bearing capability and will review the ASRR before all off-station operations. Crews that have access to the internet (WWW) will review airfield suitability in the airfield database vice the ASRR. Waiver authority is the USAFE/DO. Waivers must be obtained before mission execution and should be initiated by the USAFE AMOCC/XOPS. Once a mission is executed, the aircraft commander is responsible for determining airfield suitability based upon operational need unless paragraph 2.4.2. applies.

5.15.5. Arresting Cables.

5.15.5.1. Do not land on approach end arresting cables. If the aircraft lands before the cable, the crew should contact the tower to have the cable inspected.

5.15.5.2. Do not takeoff or land over an approach end cable that has been reported as slack, loose, or improperly rigged by NOTAM, ATIS, or ATC.

5.15.6. Runway RCR/RSC. During operations on runways partially covered with snow or ice, TOLD computations will be based on the reported RSC or RCR for the cleared portion of the runway. A minimum of 25-feet either side of centerline should be cleared to ensure proper takeoff performance in the event of an engine failure. If 25-feet either side of centerline is not cleared to the reported RSC, then the RSC of the uncleared portion will be used for TOLD computations.

5.16. Aircraft Taxi Obstruction Clearance Criteria and Foreign Object Damage (FOD) Avoidance.

5.16.1. Without a marshaler and wing walkers, avoid taxi obstructions by at least 25-feet. With a marshaler and wing walkers, avoid taxi obstructions by at least 10-feet. **EXCEPTION:** Aircraft may taxi without marshalers/wing walkers at home station along locally established taxi lines which have been measured to ensure a minimum of 10-feet clearance from any obstruction (see AFI 11-218, *Aircraft Operations and Movement on the Ground*).

5.16.2. When maneuvering on narrow taxiways or taxi clearance is doubtful, use wing walkers and observers to maintain obstruction clearance and provide marshaling (**NOTE:** Both pilot and copilot positions must be occupied for taxi. Do not hesitate to deplane the FM or CSO for assistance). Observers should be in a position to see wing walkers at all times and communicate to the pilot. During night taxi operations, marshalers will have an illuminated wand in each hand. Use AFI 11-218 signals.

5.16.3. FOD Avoidance. Make every effort to minimize the potential for engine FOD. Crews should minimize power settings during all taxi operations and avoid (when possible) 180-degree turns on taxiways. If it becomes absolutely necessary to accomplish a 180-degree turn on a narrow runway, the turn should be accomplished at an intersection of a link taxiway or at a designated turn around pad.

5.17. Fuel Requirements. See AFI 11-202V3, *General Flight Rules*, and the following:

NOTE:

This paragraph implements standard minimum fuel requirements.

5.17.1. Required ramp fuel will consist of all fuel required for engine start, taxi, takeoff, climb, cruise, alternate/missed approach (if required), descent, approach, transition, landing, and fuel reserve. Plan fuel load using Computer Flight Plan (CFP) or Aircrew Flight Planning worksheet/form, **Table 5.2.** below, and the flight manual (fuel plan not required on flights of 45-minutes or less or local training missions remaining within 350 NMs.)

5.17.2. Alternate fuel. Fuel for flight from intended destination to alternate aerodrome at optimum altitude and normal cruise speed. Compute fuel, time, and altitude from T.O. 1C-20A-1-1. When holding is required in lieu of an alternate at a remote or island destination, compute holding for 1+15-hours using planned destination gross weight at FL200. A remote or island destination is defined as any aerodrome, which, due to its unique geographic location, offers no suitable alternate (civil or military). The forecast weather at the remote or island destination must meet the criteria listed in **Chapter 6.**

5.17.3. CAT I Routing. When flying along a CAT 1 routing, crews should ensure they have enough fuel to complete the flight from the Equal Time Point (ETP). Consider worst case recovery with one-engine inoperative and loss of pressurization.

NOTE:

Plan arrival overhead alternate (furthest alternate if two are required) or destination (CONUS with no alternate required) with fuel for holding plus approach and landing or 3,000 pounds, whichever is greater. Additional fuel may be added to allow crews some flexibility when dealing with unplanned contingencies (e.g. weather avoidance, ATC delays, etc). When dealing with unplanned contingencies, crews will still plan to touchdown with fuel reserve (minimum). Unit may develop standard alternate fuel requirements for local training missions; however, these fuel requirements will not be less than those specified in this chapter.

Table 5.2. C-20A Fuel Planning Chart.

This chart ensures fuel reserve requirements of AFI 11-202V3 are met.	
Fuel Load Component	
1. Start, taxi, takeoff	500 pounds.
2. En route (<i>Note 1</i>)	Fuel for planned climb and cruise to overhead destination at cruise altitude or initial approach fix altitude.
3. En route reserve	Fuel for 10 percent of flight time over CAT 1 route or route segments not to exceed 1-hour at normal cruise.
4. Alternate, required by paragraph 6.18. (<i>Note 2</i>)	Fuel from overhead destination to the alternate at planned speed and altitude.
5. Holding (<i>Note 3</i>)	0+45 fuel using holding charts at 10,000-foot MSL. When holding in lieu of alternate is required (paragraph 6.20.) or when the alternate is located in Alaska or at latitudes greater than 59° N/S, use 1+15 holding fuel computed at 20,000-foot MSL.
6. Approach and landing	500 pounds.
7. Known holding delays	Fuel for planned holding when delays are anticipated en route or at high traffic density airports.

NOTE 1: Include all planned off-course maneuvering for departure or en route deviations. If not on CFP, use 50 pounds per min.

NOTE 2: When two alternates are required, compute fuel from the destination to the most distant alternate only.

NOTE 3: Minimum fuel required over destination or alternate is fuel for holding plus approach and landing or 3,000 pounds, whichever is greater.

5.18. Equal Time Point (ETP).

5.18.1. Whenever Extended Range Operations are conducted (see Paragraph 5.26.) computation of an Equal Time Point (ETP) is required. Annotate the ETP along the planned route of flight on the OPC/GNC.

5.18.2. Compute ETP according to the formula from Table 5.1., where:

5.18.2.1. D is the distance in nautical miles between the destination field and recovery field:

5.18.2.2. GSR – Average Ground Speed to Recovery Field – This is the average ground speed at 10,000 feet from the ETP to the recovery field. To compute ground speed, apply the forecast headwind/tailwind component to the LRC true airspeed.

5.18.2.3. GSC – Average Ground Speed to Continue to Destination – Is the average ground speed at 10,000 feet from the ETP to the destination.

Table 5.3. ETP Formula.

$\text{FL100 ETP (NM)} = \frac{D \times \text{GSR}}{\text{GSR} + \text{GSC}}$
<p>Example: D = 1040NM; forecast winds at 10,000 feet show a 60 kts headwind to continue, 80 kts tailwind to return; LRC TAS at 10,000 feet is 324 kts at standard day max. gross weight (Estimated gross weight is takeoff gross weight minus one-half block-to-block fuel to the recovery field).</p>
$\text{ETP} = \frac{(1040)(404)}{(404 + 264)} = 629 \text{ NM from the recovery base.}$

NOTE:

The recovery field is not necessarily the departure field.

NOTE:

The computation above will yield an ETP based on recovering or continuing at 10,000 feet. This is the most limiting case, and will ensure an accurate ETP in the event of an emergency such as a rapid decompression.

5.19. Airspeed. IAW applicable tech orders.

5.20. BASH Programs. BASH programs are centralized unit efforts that provide information cross-feed, hazard identification, and a consolidated course of action. As a minimum, unit must implement the following procedures:

5.20.1. Ensure compliance with the following Bird Watch condition restrictions:

5.20.1.1. **Bird Watch Condition Low** - No operating restrictions.

5.20.1.2. **Bird Watch Condition Moderate** - Initial takeoffs and final landings allowed only when departure and arrival routes will avoid bird activity. Local IFR/VFR traffic pattern activity is prohibited for training.

5.20.1.3. **Bird Watch Condition Severe** - All takeoffs and landings are prohibited. Waiver authority is local 86 OG/CC or equivalent. USAFE/DO waiver is required to operate at airfields not controlled by the NAF.

5.20.2. Make every effort not to schedule takeoffs, landings, and low-levels from one-hour before to one-hour after sunrise and sunset during the phase II period. In addition, significant bird hazards will be published in FLIP GP and the IFR Supplement along with the associated airfield operating-hour

restrictions and avoidance instructions. All units have a BASH reduction plan according to AFI 91-202, *The US Air Force Mishap Prevention Program*.

5.20.3. When operating at airfields where no BASH program exists, aircraft commanders have the authority to delay takeoffs and arrivals due to bird condition. Coordinate actions through appropriate command and control authority.

5.21. Functional Check Flights (FCF) and Acceptance Check Flights (ACF). FCFs and ACFs will be performed according to T.O. 1-1-300 and USAFEI 21-101. Additional guidance can be found in T.O. 00-20-6 and 1C-20A-6CF-1. FCFs are performed after accomplishing inspections or maintenance to assure the aircraft is airworthy and capable of mission accomplishment. ACFs specify guidelines for accepting new production aircraft and/or to determine compliance with contractual requirements.

5.21.1. FCF Restrictions:

5.21.1.1. Conditions requiring an FCF according to T.O. 1C-20A-6CF-1 include (but are not limited to) major retrofit modifications, removal or replacement of moveable flight control surfaces (except repaint), major repairs that would affect the flying characteristics of the aircraft, adjustment, removal or replacement of major components of the flight control system for which airworthiness cannot be verified by maintenance operational checks, or removal or replacement of any two engines.

5.21.1.2. The 86 OG/CC is responsible for the wing FCF program. The 86 OG/CC may waive a complete FCF and authorize an FCF to check only systems disturbed by maintenance, inspection or modification. The FCF pilot will coordinate with QAR and contract maintenance to determine specific FCF requirements to accomplish. The FCF pilot will inform the 76 AS/DO on FCF requirements (i.e. engine shutdown).

5.21.1.3. Check flight will be conducted within the designated check flight airspace of the base from which the flight was launched except when the flight must be conducted under specific conditions, not compatible with local conditions and area restrictions. Except for FCF upgrades, an FCF is not a training mission. Complete the required checks, land, and have the aircraft released for flight before conducting training. FCF flights will carry only personnel essential to accomplish the required checks.

5.21.1.4. The decision to approve a combined FCF and ferry flight is the responsibility of the USAFE/DO. FCFs will be accomplished by the best-qualified instructor or Stan/Eval aircrews that will be designated FCF qualified to their assigned aircrew position by the 86 OG/CC on the Letter of Certification maintained at the squadron Stan/Eval office.

5.21.1.5. FCFs will normally be conducted in daylight, VMC conditions. However, the 86 OG/CC may authorize a flight under a combination of VFR, IFR, and "VFR on Top" conditions. The flight will begin in VFR conditions. If the aircraft and all systems are operating properly, it may proceed IFR to penetrate cloud cover to VFR conditions to continue the altitude phase of the flight.

5.21.1.6. FCF aborts. If a malfunction occurs during an FCF and is not related to the condition generating the FCF, and the original condition operationally checks good, the aircraft may be released for flight.

5.21.1.7. 86 OG/CC and deployed mission commander may authorize temporary waivers to these FCF procedures for aircrew qualification when operationally necessary. Permanent waivers require HQ USAFE and HQ AMC approval.

5.21.2. ACF requirements will vary depending on contract/depot maintenance performed. The contractor should perform the FCF out of depot. Aircrews will ensure the FCF was completed before accepting the aircraft for an ACF. If it has not been completed, the unit will send an FCF crew to perform the FCF and ACF. ACF crews will consist of an instructor pilot and instructor FM.

5.22. Participation in Aerial Events. Use AFI 11-209, *Air Force Participation in Aerial Events*, and appropriate USAFE supplement. Aerial events must be sanctioned and individually approved by the appropriate military authority and dated with the FAA. AFI 11-209 identifies events sanctioned for support and the approving authority for each type of event. In addition, AFI 11-209 stipulates that units participating in aerial events will ensure aerial activities are coordinated with the FAA through the regional Air Force representative.

5.23. Hand-held GPS. Carry a Hand-held GPS on every mission, including local and off-station training missions (**EXCEPTION:** A Hand-held GPS is not required for aircraft equipped with on-board GPS). The Hand-held GPS, when operating properly, can provide useful information; however, it must never be used as the primary navigation source. Use of any Hand-held (HH) GPS receiver that has not been EMI certified is restricted to operations above 10,000 ft AGL only. (**Note:** USAFE will maintain a list of HH GPS certified for operations below 10,000-foot AGL). Any type of HH GPS may be used above 10,000-foot unless interference is noted with any aircraft system. The actual use of the Hand-held GPS rests with the aircraft commander. Its usage must never jeopardize safety.

5.23.1. Before using the hand-held GPS in flight, crewmembers must receive training and aircraft must be capable of supporting the hand-held GPS equipment.

5.23.2. Do not use the hand-held GPS to update navigation equipment (INS) unless the hand-held GPS position can be confirmed by another aircraft source (i.e. radar, TACAN, VOR, another INS).

NOTE:

On KLX-100 units it is extremely important to insert all of the batteries in the proper orientation as shown in section 1.1.2, Figures 1-11 through 1-17 of the operators guide. Manufacturer confirms, if only one battery is inserted incorrectly; the unit will continue to operate for 10-30 minutes, an increase in temperature may be noted (followed by a crackling sound) with the battery expands and ruptures. Caution as battery acid may leak from the bottom of the unit. A way to double-check proper insertion is to go to the GPS Setup page and check the bar graph showing battery power. Make sure it reflects battery strength near 100%. If a problem is detected shut down the GPS immediately and disconnect the unit from any external power source. Report the incident through proper channels to USAFE/SEF. Do not attempt to remove the batteries.

5.24. Engines Running Offload and Onload (ERO) Procedures.

5.24.1. To facilitate passenger loading/unloading during operations with an inoperative APU, during contingency operations in hostile environments, or at other times deemed necessary by the aircraft commander, personnel may be off-loaded and on-loaded with one or both engines running.

5.24.2. Procedures:

5.24.2.1. Set parking brake.

5.24.2.2. Shutdown left engine if loading/unloading baggage/equipment through the baggage compartment door.

5.24.2.3. Position throttles to idle.

5.24.2.4. Deplane the FM, CSO and/or FA to monitor enplaning/deplaning of personnel.

5.24.3. Crew changes during local training missions with both engines operating are authorized. Position throttles to idle and enplane/deplane through the main cabin door.

5.25. Aircraft Recovery from Unprepared Surfaces. Aircrews will normally not attempt to recover an aircraft after inadvertent entry onto unprepared surfaces not suitable for taxi. Using the appropriate equipment, ground crews will accomplish aircraft recovery. Unless an emergency situation dictates otherwise, aircrews may accomplish recovery only if there is no aircraft damage, the surface will support the aircraft, and the AC has coordinated with appropriate maintenance and/or safety authorities.

Chapter 6

AIRCREW PROCEDURES

Section 6A—Pre-mission

6.1. Aircrew Uniform.

6.1.1. Wear the aircrew uniform, as outlined in AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, on all missions, unless otherwise authorized. When the Foreign Clearance Guide requires civilian attire, men will wear a conservative suit or sport coat and tie, and women will wear a conservative blazer and slacks combination.

6.1.2. 86 OG/CC will determine clothing and equipment to be worn or carried aboard all flights commensurate with mission, climate, terrain involved and Paragraph 6.50. of this volume.

6.1.2.1. All crewmembers will have Nomex gloves in their possession.

6.1.2.2. It is recommended that primary crewmembers wear Nomex gloves during engine start, taxi, takeoff and landing.

6.1.2.3. Crewmembers will remove finger rings and scarves before performing aircrew duties.

6.1.2.4. The primary uniform will be flight suits for DV-3 and lower ranking dignitaries. For DV-2s and higher, the service dress will be worn unless the Foreign Clearance Guide directs civilian clothing. **Civilian clothing is recommended for force protection outside the CONUS.**

6.1.2.5. The 76 AS/CC has approved wear of the special Flight Attendant (FA) uniform.

6.1.2.6. When the flight suit is worn with authorized jackets, crewmembers will be similarly attired at all times.

6.1.3. Personnel will have the appropriate items of clothing in their possession when flying in Arctic and Antarctic regions. **EXCEPTION:** Not applicable to transoceanic flights or when staging or transiting Elmendorf AFB AK.

6.1.4. See AFI 10-403, *Deployment Planning*, for mobility requirements.

6.2. Personal Requirements.

6.2.1. Passport. Carry a valid passport on all missions outside the 48 conterminous states.

EXCEPTION: Unit commanders may authorize newly assigned personnel who have applied for, but not yet received, a passport to act as crew members on missions not scheduled to transit locations where passports are required. **EXCEPTION:** Passports not required for local training missions.

6.2.2. Shot Record. Crewmembers must maintain worldwide shot requirements and carry shot records on all missions.

6.2.3. Corrective Lenses. See AFI 11-202V3.

6.2.4. Driver's License. A valid state or USAREUR driver's license is required on each TDY where use of US government general-purpose vehicles may be required. Contact the local airfield manager if vehicle will be operated on the flight line.

6.2.5. Identification Tags (a.k.a. "Dog" tags). Two required for all flights.

6.2.6. FOD Hazards. Crewmembers will not wear wigs, hairpieces, rings, ornaments, pins, clips, other hair fasteners, or clip-on earrings in the aircraft or on the flight line.

EXCEPTION: Crewmembers may wear plain elastic hair fasteners and/or barrettes. These fasteners must not interfere with the wearing of headsets or the donning of oxygen equipment and will be accounted for before and after flight.

6.2.7. Hearing protection, specifically ear plugs, will be worn at all times when personnel are working around hazardous noise producing sources (especially during ground operations with the APU operating and baggage loading/unloading operations are taking place).

6.2.8. Flashlights. Each crewmember must carry an operable flashlight for night flights as defined in AFI 11-202V3. **Flashlights should be carried at all times.**

NOTE:

Only properly secured aircraft equipment and spare parts will be stored in the unpressurized aft equipment area. Do not store personal items in this compartment.

6.3. Pre-mission Actions.

6.3.1. Coordinate itinerary and mission requirements with the mission POC. POC names and telephone numbers are unclassified. However, do not mention the DV's name when talking on a non-secure telephone. Use a secure voice (STU III) to pass DV names and any additional information considered sensitive.

6.3.2. Accomplish appropriate Theater Indoctrination Training. Unit may further define this as necessary. A unit approved Pre-Mission Checklist may provide necessary guidance.

6.3.3. Review tasking, and itinerary. Determine the suitability and status of all airfields on the itinerary (available approaches, services, etc.) For ferry flight operations, special arrangements with ARTCC may be necessary to cross the North Atlantic due to RVSM requirements.

6.3.4. Review applicable OPORD and FLIP.

6.3.5. Review the Foreign Clearance Guide for areas of operation. Obtain necessary diplomatic clearances where required.

6.3.6. Obtain required customs forms.

6.3.7. Obtain computerized flight plans (CFP), as appropriate.

6.3.8. Obtain sufficient communications security (COMSEC) materials for the duration of the mission.

6.3.9. Review anti-hijacking procedures in AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*, and **Chapter 7**.

6.3.10. Ensure physiological training, annual physical, immunizations, and standardization checks will remain current throughout the TDY period.

6.3.11. Obtain visas, if required. The USAFE AMOCC/XOPS will notify the 76 AS/DO or appropriate squadron POC as soon as visa requirements are suspect/determined.

6.3.12. Obtain terrain charts for unfamiliar destinations, if available. INTEL may provide imagery of airfields not available through normal channels.

6.3.13. Compile sufficient spare forms, flight orders, etc. to cover the TDY period.

6.3.14. Release available seats to ATOC or passenger terminal as appropriate.

6.4. Aircrew Publications Requirements. Crewmembers do not need to carry publications that are maintained aboard the aircraft. The FM is responsible for ensuring currency of onboard publications. As a minimum, only one crewmember from each crew position needs to carry the applicable required current publications in **Table 6.1**. 86 OG/OGV will further define issued/carried publications beyond **Table 6.1**. Each crewmember is responsible for ensuring the currency of their flight manuals and instructions.

Table 6.1. Publication Requirements.

Publication	AC	CP	FM*	CSO	FA
TO 1C-20A-1, Flight Manual			X		
TO 1C-20A-1CL-X, Abbreviated Flight Crew Checklist	X	X	X	X	X
TO 1C-20A-1-1, Performance Manual			X		
AFI 11-202V3, <i>General Flight Rules</i>	X				
AFI 11-2C-20V3, <i>C-20 Operations Procedures</i>	X				

NOTE:

* Flight Engineer, when Flight Mechanic position is converted.

Section 6B—Pre-departure

6.5. Airfield Certification. All applicable crew members will review airport qualification audiovisual slide tape programs as available before operating missions into unfamiliar airfields. In addition, aircrews will review the Airfield Suitability and Restrictions Report (ASRR) and Supplemental Theater Indoctrination File (STIF) and should contact USAFE AMOCC/XOPA or HQ AMC/DOVS for updates to airfield operability. Request waivers according to paragraph 5.15.4. The latest information is available through the world wide web (<http://www.amc.af.mil/do/doa/doas.htm>) or through GDSS/C2IPS. Comply with AFI 11-202V3 and the USAFE Supplement.

6.6. Aircrew Intelligence Briefing. Before leaving home station on missions departing the local theater of operations, crews will contact AFOSI and intelligence (INTEL) to receive briefings emphasizing terrorist, enemy, and friendly political and military development in the area in which they will be operating. Aircrews should receive intelligence updates at en route stops when significant developments occur.

6.6.1. Report information of possible intelligence value to the local intelligence officers at the completion of each mission.

6.6.2. Threat Analysis. Operations into areas of hostile activity may require specialized procedures and/or advanced training. When tasked for a mission into such an area, the aircraft commander should consult with the squadron leadership to coordinate any intelligence, tactics, threat, or flying training requirements.

6.7. Flight Crew Information File (FCIF) Procedures. See AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, and USAFE Supplement.

6.7.1. Review FCIF, Volume 1, (Current Read File, as a minimum) before all missions or ground aircrew duties. Update the FCIF currency record with the latest FCIF item number, date, and crewmember's initials.

6.7.2. Crewmembers delinquent in FCIF review or joining a mission en route will receive an FCIF update from a primary aircrew member counterpart on the mission. Instructor pilots who fly with general officers are responsible for briefing appropriate FCIF items.

6.7.3. Crewmembers not assigned or attached to the unit operating a mission will certify FCIF review by entering the last FCIF number and their initials behind their name on the file copy of their crew orders.

6.8. Flight Crew Bulletins (FCB).

6.8.1. FCBs are issued under provisions of AFI 11-202V2 and USAFE supplement. 86 OG/OGV will be the OPR for FCBs. Items in FCBs may include local procedures and policies concerning equipment and personnel generally not found in any other publications.

6.8.2. All crewmembers should be cognizant of FCB contents.

6.9. Airfield Security. When departing on missions destined outside the CONUS, aircraft commanders should review applicable USAFE security publications.

6.10. Mission Kits. Carry mission kits on all operational missions. Suggested items include:

6.10.1. Publications:

6.10.1.1. AFI 23-202, *Buying Petroleum Products and Other Supplies and Services Off-Station*.

6.10.1.2. AFJI 11-204, *Operating Procedures for Aircraft Carrying Hazardous Materials*.

6.10.1.3. AFPD 24-4, *Customs and Border Clearance*.

6.10.1.4. Airfield Suitability and Restrictions Report (ASRR). Mandatory all missions.

6.10.2. Forms:

6.10.2.1. DD Form 1854, **US Customs Accompanied Baggage Declaration**.

6.10.2.2. DD Form 2131, **Passenger Manifest**.

6.10.2.3. CCF 7507, **General Declaration (Outward/Inward)** and applicable customs forms for countries transited.

6.10.2.4. AF Form 15, **United States Air Force Invoice**.

6.10.2.5. AF Form 315, **United States Air Force AV Fuels Invoice**.

6.10.2.6. AF Form 457, **USAF Hazard Report**.

6.10.2.7. AF Form 651, **Hazardous Air Traffic Report (HATR)**.

6.10.2.8. AF Form 1297, **Temporary Issue Receipt**.

6.10.2.9. AMC Form 43, **Transient Aircrew Facilities Report.**

6.10.2.10. AMC Form 54, **Aircraft Commander's Report on Services/Facilities.**

6.10.2.11. AF Form 711, **United States Air Force Aircraft Mishap Report.**

6.10.2.12. C-20 TOLD Card. Mandatory, carry enough TOLD card forms for all mission legs. Unit will prescribe this form (USAFE FORM 0-419, **C-20 TOLD Card**), in **Chapter 10.**

6.10.3. Flight Orders. See AFI 11-401, *Flight Management* and USAFE Supplement and use the appropriate Flight Authorization form format.

6.11. Route Navigation Kits. A route navigation kit is stored on the aircraft. Kits contain sufficient quantities of material to cover the planned mission. As a minimum, kits will contain all current DoD publications for the ENAME, Canada and the U.S. Mission requirements will dictate other publications required and/or maybe further defined by the unit.

6.12. Briefing Requirements.

6.12.1. Aircraft Commander Briefing. Brief crew members on the specific mission details if not previously accomplished. Unit will supplement this guide as necessary but as a minimum the following will be briefed:

6.12.1.1. Time Hack.

6.12.1.2. Aircraft Call Sign(s), Mission Number, Aircraft Tail Number, Initial Fuel Load, Showtime, SPOT Procedures, SEC SEAT Status.

6.12.1.3. Introduce Crewmembers and confirm accuracy of orders if available.

6.12.1.4. Mission Itinerary, including Destinations, Fuel Stops, Alternates and Crew Duty Time Limits.

6.12.1.5. Review Weather.

6.12.1.6. Review DV/passenger information, including meal plan and baggage plan/ restrictions and seat release, if applicable.

6.12.1.7. Communications and IFF Requirements and Procedures.

6.12.1.8. Airdrome Approaches, Departures, Restrictions and Hazards (Pilots and FMs will review these items separately in greater detail than covered in the crew brief).

6.12.1.9. Normal Procedures Review.

6.12.1.10. Emergency Procedures Review. Unit may provide additional guidance concerning specific emergencies to be reviewed.

6.12.1.11. Personal requirements for crewmembers (e.g., FCIF, Safety Read File, Squadron Read File, passports, line badges, etc.).

6.12.1.12. Crew Conduct, Force Protection, Antihijacking, RON considerations.

6.12.1.13. Individual Readiness to Fly.

6.12.2. Weather Briefings. Request a weather briefing on DD Form 175-1, **Flight Weather Briefing**, or USAFE-approved form. (**EXCEPTION:** Verbal weather briefings are acceptable for local training

missions via USAFE/OWS or other approved weather service). Obtain a briefing on current weather, trends, and forecast for the proposed route, destination, and alternates. Both pilots will attend the weather briefing unless crew duties dictate otherwise. If the flight will transit non-Air Force bases, crews will ensure required weather data is obtained before mission accomplishment through any means available (see Paragraph 6.12.2.2.). When face-to-face briefings are not possible, obtain a telephone weather briefing (precedence up to and including IMMEDIATE is authorized).

6.12.2.1. Designated MAJCOM regional briefing stations provide the telephone briefing for CONUS flights. USAFE OWS will support all missions as requested via verbal, fax or e-mail.

6.12.2.2. Obtain weather information from US Military weather services, any FAA-approved weather source, or any host nation civil or military weather source.

6.12.3. Buffer Zone. Before operating an aircraft within or adjacent to an established buffer zone, the pilot will ensure primary crew members are briefed on current buffer zone procedures outlined in USAFEI 11-201, *USAFE Buffer Zone (BZ) Procedures*.

6.12.4. Peacetime and Wartime SAFE PASSAGE Procedures. Pilots must be familiar with peacetime and wartime safe passage of friendly military aircraft (if applicable). Aircraft procedures are in NORAD Regulation 55-67.

6.13. Call Signs.

6.13.1. Training Missions. Use the unit static call sign prefix followed by a 2-digit suffix assigned by the parent unit.

6.13.2. Operational Missions. Use call signs assigned by OPORD, FRAG, or diplomatic clearance. If no call sign has been assigned to the mission, use unit static call signs. The normal C-20A static call signs will be SPAR 65, 66 or 67.

6.13.3. Aeromedical Evacuation Missions. Use call sign "E" followed by the 5-digit aircraft tail number or mission designator (as required by FLIP). Use this call sign during positioning leg and evacuation portion of the mission. When the aeromedical evacuation portion of the mission is completed, normal call signs will then be used.

6.14. Instrument Flight Rules. Conduct flight operations under IFR to the maximum extent possible without unacceptable mission degradation. This does not preclude VFR training to maintain proficiency in mission essential VFR operations.

6.15. Flight Data Verification.

6.15.1. Aircrews should acquaint themselves with the mission and individual sortie requirements to ensure successful mission accomplishment.

6.15.2. Computer Flight Plan (CFP) Use. CFPs are the official sources of performance, navigation, and climatic data, including en route wind information. CFPs should be utilized to the maximum extent practical. The flight crew has final responsibility for accuracy of the flight plan and will verify route definition and fuel computation accuracy before departure.

6.15.2.1. The aircraft commander may update CFPs while off-station through home unit or TACC flight planning.

6.15.2.2. Flight crews may manually compute flight plans, or use PC based or contracted CFPs. If stand-alone PC-based plans are used, each mission segment should utilize best wind data available. Contracted CFPs should be as accurate as practical including date of flight and payload.

6.15.3. Compute TOLD using T.O. 1C-20A-1CL-1 and/or 1C-20A-1-1. All TOLD computations should be verified by another crewmember.

6.16. Departure Planning: IAW AFI 11-202V3, USAFE supplement, AFMAN 11-217, *Instrument Flight Procedures*, and this instruction.

6.16.1. Gross Weight (GW). Ensure that the aircraft does not exceed the maximum gross weight, zero fuel weight, or center of gravity limitations specified in the aircraft flight manual. Gross weight may be further restricted by operating conditions such as icing, temperature, pressure altitude, runway length and slope, departure maneuvering, required climb gradients, and obstacles.

6.16.2. Departure Routing/Climbout Performance. Review the appropriate terrain charts before departure. Regardless of the type of departure flown (SID, Specific ATC Departure Instructions, IFR Departure Procedure, or VFR), the aircraft must be able to achieve the published climb gradient (for the runway to be used) with all engines operating, and be able to vertically clear all obstacles within the climbout flight path with one engine inoperative. (**EXCEPTION:** See Paragraphs [6.17.5](#) through [6.17.6.3](#).) If no minimum climb gradient is published, use 200 ft/NM minimum one engine inoperative. If a higher required climb gradient is published, use that climb gradient. This only works at fields having an instrument approach. If the field does not have an instrument approach, then no obstacle survey has been conducted. Therefore, you don't know if 200 ft/NM is sufficient. At airfields with no instrument approach, an IFR departure is not authorized. In all cases, the minimum engine-out climb gradient for the C-20A is 3.3% (200ft/NM).

6.16.2.1. Published IFR Departure Procedures. Published IFR Departure Procedures are available at some civil and military fields to assist in avoiding obstacles during climb to the minimum en route altitude (MEA). Airfields with Published IFR Departure Procedures will have the inverted triangle with a white "T" symbol printed on the approach plates and SIDS. When using Jeppesen publications, IFR Departure Procedures will be on the airfield diagram page, which is typically on the reverse side of the first approach of the airport. A climb gradient and/or specific routing and/or alternate takeoff weather minimums will normally be specified with a Published IFR Departure Procedure. When flying a Published IFR Departure Procedure, depicted routing and climb gradients must be flown to avoid obstacles. The C-20A is not authorized to use alternate takeoff weather minimums.

NOTE:

If the Published IFR Departure Procedure does not include either a routing or a minimum climb gradient (i.e., it includes only alternate takeoff weather minimums) then an IFR departure from that airfield IS NOT AUTHORIZED unless you fly a SID (must have it's own specified minimum climb gradient for obstacle clearance) or depart via radar vectors.

6.16.2.2. Specific ATC Departure Instructions (Specific climbout instructions or "radar vectors"). Crews may depart via specific ATC departure instructions, however, the SID prescribes a safe route of flight for a climb to the en route structure, while minimizing radio communication. Crews should also be aware that "radar vector" departures may not be authorized, or may be issued with

specific climb gradient instructions for obstacle clearance, and plan accordingly. Even if you plan to depart via specific ATC departure instructions, the crew should still have the SID on board (if published).

6.16.2.3. VFR Departures. VFR departures are authorized when required for mission accomplishment. The weather at takeoff must permit a VFR climb to an IFR MEA, an appropriate IFR cruising altitude, or an altitude where radar vectors can be provided. **NOTE:** In no case will VFR departures be flown in lieu of obstacle clearance planning.

6.17. Obstacle Clearance Planning: IAW AFI 11-202V3, AFMAN 11-217 and this instruction (Ref. [Figure 6.1.](#))

6.17.1. Climb gradient and obstacle information may be found on SIDs, Published IFR Departures, terrain charts and the ASRR. Aircrews may also contact USAFE AMOCC/XOPA or HQ AMC/DOVS (Airfield Suitability) for additional obstacle data.

6.17.2. Objects may or may not be depicted (they definitely will not be depicted on civil procedures). Objects that are not depicted still require careful consideration in takeoff planning.

6.17.3. SIDs simplify ATC procedures while providing safe routing to the en route structure; however, SIDs should not be used as the sole source of obstacle information for departure planning. If used as such, inadequate (engine out) obstacle clearance may result. SIDs, instrument approach plates, and topical sectional charts must be used to determine the distance and height values for all significant obstacles along the flight path.

6.17.4. The controlling obstacle is defined as the obstacle requiring the greatest climb gradient within the flight path. Obstacles are not normally depicted on SIDs when climb gradients of less than 152-feet per NM are required to clear them.

6.17.5. In order to fly any IFR departure, aircrews must ensure they can meet the published/required climb gradient for the planned departure with all engines operating. In addition, aircrews will accomplish the following to ensure they can vertically clear all obstacles on or reasonably near the climbout/emergency return flight path with one engine inoperative:

6.17.5.1. Use the most restrictive of the following to determine whether engine out climb performance is sufficient to provide obstacle clearance:

6.17.5.1.1. Using applicable obstacle height and distance information from available terrain charts (JOG, TPC, sectional, etc.), the ASRR, base operations, etc. ensure engine out climb performance is sufficient to vertically clear obstacles which are on or reasonably close to the planned departure and emergency return flight path.

6.17.5.1.2. If a climb rate is published for the planned departure, compare this rate with actual airplane climb capability using the appropriate engine-out climbout chart.

6.17.5.2. In the event that the “engine out” climb rate is not sufficient to clear all obstacles, the crew will consider the following:

6.17.5.2.1. Downloading fuel.

6.17.5.2.2. Delaying the mission until climatological conditions allow sufficient performance to clear all obstacles.

6.17.5.2.3. Coordinating alternate departure procedures with the controlling agency that will provide obstacle clearance.

6.17.6. If none of the options in Paragraph 6.17.5.2. are feasible, the crew may depart on an IFR departure only if all the following conditions are met:

6.17.6.1. Day/VFR conditions exist on the entire departure and planned emergency return routing. (*VFR to IFR MEA*)

6.17.6.2. The aircraft commander has determined through a review of all applicable maps and charts that, in the event of an engine failure, the planned departure and emergency return routing will allow for obstacle avoidance.

6.17.6.3. The planned emergency route is briefed to the entire crew.

6.17.7. In the event of an engine failure, aircrews will advise ATC if they are unable to comply with the published minimum climb. Obtain radar vectors or avoid all obstacles visually.

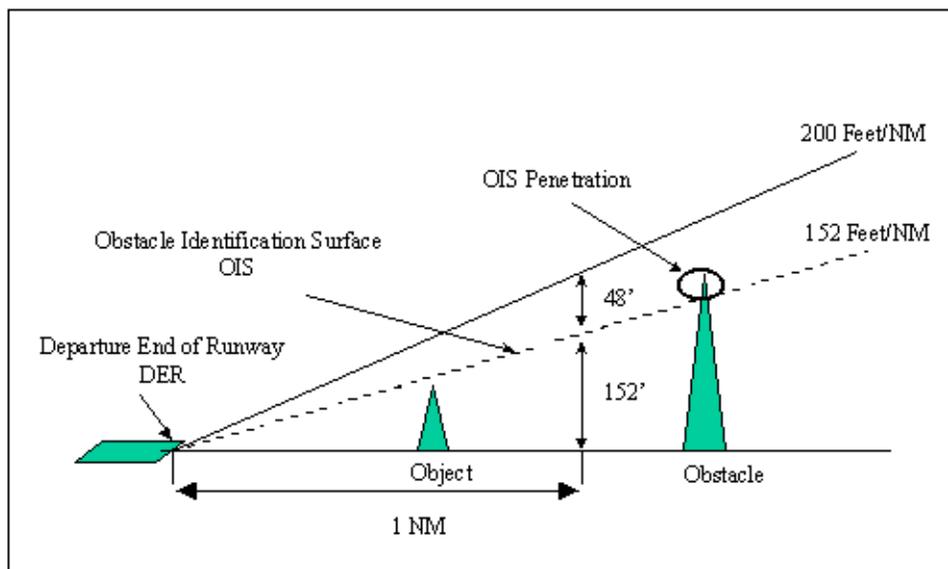
6.17.8. The following procedures apply for all departures:

6.17.8.1. The pilot will review the obstacle height, distance, and gradient information necessary for performance computations. As a minimum, review the appropriate terrain chart or sectional chart in addition to the SID (if available). The following guidelines should help eliminate obstacles that are not a factor.

6.17.8.2. All obstacles on the SID will be considered. If no distance is published, use appropriate aeronautical chart (if available) to estimate flying distance to depicted obstacles.

6.17.8.3. When utilizing other sources for obstacle information, consider all obstacles which fall within the departure, or emergency return routing in case of engine failure.

Figure 6.1. Obstacle Identification Surface.



6.18. Alternate Planning.

6.18.1. Choose alternates that best meet mission requirements and conserve fuel. Those selected should not be within the same terminal area if terminal forecasts are marginal. Select alternates that are not restricted by FLIP, Foreign Clearance Guide, or diplomatic clearances and are compatible with the mission load and performance characteristics of the aircraft.

6.18.2. The aircraft commander retains final authority in the choice of alternates; however, selection by support agencies normally should be used if they meet the above criteria and the aircraft has already been serviced.

6.18.3. Alternates selected must meet the alternate airport weather requirements according to AFI 11-202V3 and USAFE Supplement.

6.19. Departure Alternates.

6.19.1. A departure alternate is required if ceiling or visibility is below landing minimums for an available approach (at departure aerodrome). Do not use category II ILS minimums to determine if a departure alternate is required.

6.19.2. Suitability of Departure Alternates. When departure alternate is required, the aircraft must be capable of maintaining the MEA or MOCA, whichever is higher, to the alternate using one engine out performance criteria. To qualify as a departure alternate the airfield must meet one of the following conditions:

6.19.2.1. Existing weather at an alternate within 30 minutes flying time must be equal to or better than the published approach minimums and forecast to remain so until 1-hour after takeoff, but in no case forecast to be lower than 200-1/2 (RVR 2400), or:

6.19.2.2. The existing weather at an alternate within 1-hour flying time must be at least 500-1 above the lowest compatible published approach minimums, but in no case lower than 600-2 for a precision approach or 800-2 for a non-precision approach, and forecast to remain so for 1-hour after ETA at the alternate.

6.20. Destination Requirements (*for filing purposes*). The forecast destination weather will be according to AFI 11-202V3, the USAFE Supplement and the following:

6.20.1. File two alternates when the forecast weather is less than required minimums for the lowest compatible approach, or the forecast surface winds (intermittent or prevailing) exceed limits corrected for RCR.

NOTE:

If designating two alternates due to winds exceeding limits corrected for RCR or RCR below operating minimums. The weather for both alternates must meet AFI 11-202V3 dual alternate criteria. For both alternates the winds must be within limits corrected for RCR or RCR within operating limits for ETA +/- one-hour.

6.20.2. File an alternate, regardless of forecast weather, when the departure or destination aerodrome is outside the 48 conterminous states.

6.20.3. When filing to a remote or island destination, aircrews may use 1+15 holding fuel (in lieu of an alternate). Compute holding fuel using planned destination gross weight at FL 200. A remote or island destination is defined as any aerodrome, which, due to its unique geographic location, offers no

suitable alternate (civil or military). The forecast weather at the remote or island destination must meet the following criteria:

6.20.3.1. The prevailing surface winds, corrected for RCR, must be within limits at ETA and forecast to remain so for 2-hours thereafter, **and**

6.20.3.2. The prevailing ceiling and visibility must be equal to or greater than published minimums for an available non-precision approach, for ETA plus 2-hours. If a precision approach is available, the ceiling or visibility may be intermittently below non-precision approach minimums, but not below precision approach minimums (for ETA plus 2-hours).

6.20.4. When filing to a destination where the alternate is located in Alaska or at latitudes greater than 59 degrees, carry an additional 30 minutes of holding fuel. In this case, the minimum planned fuel overhead planned destination would include fuel for approach/landing, alternate/missed approach, fuel reserve, and 1+15 holding fuel. Compute holding fuel using planned destination gross weight at FL200.

6.21. Adverse Weather. Flight into areas of forecast or reported freezing rain, severe icing or severe turbulence is prohibited.

6.21.1. Do not takeoff under conditions of freezing precipitation.

6.21.2. During flight, use any means available to avoid thunderstorms by at least 20 NMs at or above FL 230, or 10 NMs below FL 230.

6.21.2.1. Aircrews should avoid flying in areas of recently dissipated thunderstorms and advected clouds downwind of thunderstorms. Crew actions should err on side of safety.

6.21.2.2. The use of ground-based radar as a means of thunderstorm avoidance should be used only to assist in departing an inadvertently penetrated area of significant weather. It should never be considered a normal avoidance procedure.

6.21.3. Do not fly directly above (within 2,000-feet) thunderstorms or cumulonimbus clouds. If unable to vertically clear cumulonimbus clouds by at least 2000-feet, you must avoid them by using the above criteria.

NOTE:

Aircraft damage may occur 20 miles or more from any thunderstorms. Aircrews must familiarize themselves with information on thunderstorm development and hazards. Refer to AFH 11-203, *Weather for Aircrews*.

6.21.4. In order to minimize exposure to thunderstorm hazards when approaching or departing an airport in an area where thunderstorms are occurring or are forecast:

6.21.4.1. Attempt to maintain VMC.

6.21.4.2. Maintain at least 5 NMs separation from heavy rain showers.

6.21.4.3. Avoid areas of high lightning potential to the maximum extent possible, i.e. clouds within plus or minus 5,000-feet of the freezing level and/or 8C of the freezing level.

NOTE:

Approaches or departures may be accomplished when thunderstorms are within 10 NMs. The thunderstorms must not be producing any hazardous conditions (such as hail, lightning, strong winds, gusts fronts, heavy rain, wind shear, or microburst) at the airport, and must not be forecast or observed to be moving in the direction of the route of flight (to include the planned missed approach corridor, if applicable). Serious consideration to cease operations must occur if thunderstorms are within 5 NMs.

6.21.5. Aircrews performing approaches and landings at locations where temperatures are 0 degrees Celsius or below will refer to the Flight Information Handbook, section D, Temperature Correction Chart, to correct minimum descent altitude (MDA), decision height (DH), and other altitudes inside the final approach fix (FAF) if required.

6.21.6. Do not fly into an area of known or forecast moderate or greater mountain wave turbulence. Crews should use good judgment when flying into any area conducive to mountain wave turbulence, and avoid these areas of potential turbulence when possible.

6.21.6.1. Mountain wave turbulence is normally a predictable condition. Forecasters at base weather stations, using guidance products from weather centers, can advise crews of the potential for encountering mountain wave turbulence along planned routes of flight.

6.21.6.2. Weather data availability in mountainous regions and forecast model limitations prevent the prediction of all events.

6.21.6.3. Crews must be familiar with the causes of mountain wave turbulence and the characteristic clouds that generally forewarn its presence.

6.21.7. SIGMET. National Weather Service in-flight weather advisories are not limiting to Air Force aircraft, but may indicate a need for the aircrew to contact a military weather facility. Crews will consider all SIGMETs valid for their aircraft until verified as not applicable with a military METRO service.

6.21.8. Volcanic Dust Precautions. See Aeronautical Information Manual (AIM). Plan all missions to avoid general vicinity of volcanic activity. Aircraft operation in area of forecast or known volcanic activity or dust is prohibited.

6.22. Fuel Conservation.

6.22.1. Unit may further supplement this paragraph but should realize the negative impact incredibly strict fuel procedures could impose on the typical, rapidly changing DV/OSA mission. Conservation of fuel requires everyone's active participation. For every pound of excess fuel, 3 percent of the excess will be burned each hour.

6.22.2. Extra fuel (identified extra) may be added to required ramp fuel load (RRFL):

6.22.2.1. When fuel availability is limited or not available at en route stops.

6.22.2.2. For known holding delays in excess of standard.

6.22.2.3. For anticipated off-course weather avoidance.

6.22.2.4. When en route refueling would delay or be detrimental to mission accomplishment.

6.22.2.5. When destination NAVAIDS, ATC services, or landing aids are unreliable or insufficient.

6.22.2.6. Anytime when deemed necessary by the aircraft commander.

6.22.3. Planning factors for fuel conservation include: Use optimized CFPs when possible, fly en route descents when possible, consider long range cruise (LRC) and use optimum altitudes, limit use of APU when possible and cruise CG should be aft, if practical. (Cruise at .746M may result in slight passenger discomfort and should only be used as a last result for mission accomplishment if the flight cannot be made at .77M or .80M.).

6.22.4. Fuel loads: Units may develop standard ramp loads that meet the minimum local training mission requirements or emergency evacuation requirements (whichever is less). De-fuel will not be required if RRFL is less than the standard ramp fuel load, unless mission requirements dictate otherwise.

Section 6C—Preflight

6.23. AFTO Form 781A, Maintenance Discrepancy and Work Document, According to T.O. 00-20-5. Review AFTO Form 781A before applying power to the aircraft or operating aircraft systems. The exceptional release must be signed before flight. A maintenance officer, maintenance superintendent, or authorized civilian normally signs the exceptional release. If one of these individuals is not available, the aircraft commander may sign the exceptional release. Ensure that the Air Force fuel identification plate is aboard the aircraft.

6.24. Aircraft Servicing and Ground Operations.

6.24.1. Aircraft Refueling. Aircrew members qualified in ground refueling may perform refueling duties. Crew members acting as refueling supervisors and panel operators will comply with T.O. 00-25-172 and applicable T.O. 1C-20A-1 series T.O. Aircrews will only refuel in cases when maintenance support is not readily available and the mission would be delayed. Crew members may augment maintenance refueling teams at en route stops.

6.24.2. Concurrent Ground Operations. Authorized for C-20As IAW T.O. 00-25-172.

6.24.3. The following guidance will be used for fuel servicing (refuel) operations only:

6.24.3.1. Aircrew members are authorized to enplane and deplane during fuel servicing to perform mission essential duties.

6.24.3.2. Passengers may remain on board aircraft during refueling, provided they are briefed on the hazards of the operation and given the option to deplane before refueling. A standby fire truck is required according to T.O. 00-25-172.

6.24.3.3. INS/FMS systems may remain energized and may be updated during refueling operations.

6.24.3.4. Electric and electronic equipment should normally be turned off during refueling operations or not switched on/off.

6.24.3.5. Aircrew personnel are authorized to conduct power-off portion of inspections during servicing when it is essential to meet operational turnaround requirements.

6.25. Not used.

6.26. Oxygen Requirements. The minimum quantity of oxygen aboard an aircraft before takeoff must be sufficient to accomplish the planned flight from the equal time point (ETP) to a suitable recovery should oxygen be required. Calculate using the 100 percent oxygen chart in the flight manual.

6.27. Fleet Service Equipment. The FA will ensure required fleet service items are aboard.

6.28. Passenger Handling and Cargo Documentation.

6.28.1. Passenger Handling. The Aircraft Commander is ultimately responsible for required passenger handling duties. The Flight Attendant normally ensures the following:

6.28.1.1. Passengers are limited to 30 pounds of baggage unless specific allowance for excess baggage is authorized and planned by the controlling agency. Passengers (duty and standby) with excess baggage may be transported after the AC determines that aircraft weight limitations and mission requirements are satisfied.

6.28.1.2. Ensure passengers are manifested and the required anti-hijacking inspections are performed.

6.28.1.3. After security and anti-hijacking inspection, passengers should be under the constant supervision of a passenger service representative or a crewmember. Ensure the security and anti-hijacking inspection is re-accomplished before boarding passengers when unable to provide constant supervision.

6.28.1.4. Make every effort to enhance passenger comfort.

6.28.1.5. Accomplish passenger briefings according to aircraft checklist or approved briefing guides, and printed passenger information guides IAW AFI 11-202V3, *General Flight Rules*, and USAFE Supplement. Use of seat belts, shoulder harnesses, and emergency equipment will be briefed or demonstrated as required. Additionally, passengers should be notified before takeoffs and landings to ensure seat belts and harnesses are fastened, loose articles stowed, seat backs upright, etc.

6.28.1.6. Ensure the highest-ranking DV is afforded the seat of preference, and other passengers are aware of DV status of passengers.

6.28.1.7. Seat Release.

6.28.1.7.1. Release space available seats to the maximum extent possible, unless restricted by the controlling agency.

6.28.1.7.2. With a DV-3 or higher on board, release seats only with the concurrence of the mission POC. Ensure the comfort of the DV and party is not compromised.

6.28.1.7.3. With a DV-4 or lower on board, release seats at the aircraft commanders' discretion.

6.28.1.7.4. On missions directed by the Special Air Missions Office, USAF/CVAM, consult the controlling agency before releasing seats on non-revenue, revenue, or White House missions. This includes positioning and de-positioning legs.

6.28.1.7.5. Do not delay mission departure waiting for space available passengers.

6.28.1.8. Manifesting. Aircraft commanders are responsible to ensure that all passengers are properly manifested.

6.28.1.8.1. At locations with an AMC Passenger Processing Activity, passengers are manifested by air terminal operations personnel.

6.28.1.8.2. At locations without an AMC Passenger Processing Activity, aircrew personnel will manifest all passengers (use DD Form 2131, **Passenger Manifest**) and leave a copy of the manifest with a responsible ground agency before flight. Annotate the location of the manifest on the flight plan IAW AFI 11-202V3.

6.28.1.8.3. When manifesting is accomplished by the aircrew, anti-hijack-process according to AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*.

6.28.1.9. Child or infant safety seats or restraints for use in aircraft:

6.28.1.9.1. Acceptable child or infant safety seats. The following child or infant safety seats are considered acceptable for use in all phases of air transportation:

6.28.1.9.1.1. Any child or infant safety seats manufactured between 1 Jan 81 and 26 Feb 85, which have a label stating: "This child restraint system conforms to all applicable motor vehicle safety standards."

6.28.1.9.1.2. Seats and restraints manufactured after 26 Feb 85 must have an additional label printed in red stating: "This restraint is certified for use in motor vehicles and aircraft."

6.28.1.9.1.3. No other seat or restraint is authorized.

6.28.1.9.2. Use of child and infant safety seats and restraints:

6.28.1.9.2.1. These seats will be secured to a seat using the seat belt.

6.28.1.9.2.2. Adults will not hold infant seats during any phase of flight.

6.28.1.9.2.3. Acceptable child and infant safety seats or restraints may be used for takeoff, landing, or during an emergency in forward or aft facing seats only.

6.28.1.9.3. Passengers are responsible for providing acceptable child/infant safety seats for their accompanying children.

6.28.2. Cargo Documentation. C-20A aircraft do not normally fly scheduled cargo missions. Aircraft commanders may accept or decline shipments at their discretion based on mission requirements, crew, or aircraft capabilities. When cargo is placed aboard OSA aircraft, proper cargo documentation must accompany each cargo load. A cargo manifest is required before all departures with cargo aboard. If a computerized cargo manifest is not available at the manifesting station, a cargo listing will accompany the load. The cargo/mail listing may be an abbreviated manifest, but will contain all required MILSTAMP data. A Shipper's Declaration for Dangerous Goods is required for hazardous cargo, and DD Form 1387-2, **Special Handling Data/Certification**, is required for sensitive/classified cargo.

6.29. Procedures for Airlifting Hazardous Cargo. Hazardous materials, according to AFJMAN 24-204, will not be carried on C-20A aircraft unless in compliance with graph **6.29.1**.

EXCEPTION: Aircraft commanders may authorize transportation of personal items, which are normally allowed on commercial carriers. Examples of items which may be carried in checked baggage include unloaded personal weapons, small quantities of securely boxed personal cartridges (excluding ammunition with explosive or incendiary projectiles), and battery operated wheelchairs, when properly secured (battery disconnected and stored upright, etc.).

NOTE:

Oxygen carried for medical use by a patient or passenger is authorized without restriction. Oxygen will be accessible in flight.

6.29.1. C-20A aircraft are authorized to transport the following hazardous materials prepared and packaged IAW AFJMAN 24-204 and specifically authorized via a USAFE AMOCC initiated mission-specific waiver by the USAFE/DO:

6.29.1.1. All Class/Divisions of explosives.

6.29.1.2. Class/Division 2.2 nonflammable aerosols and compressed gases limited quantities.

6.29.1.3. Class/Division 2.2 nonflammable high-pressure spheres and canisters authorized in support of the United States Air Force and DoD atmosphere research program.

6.29.1.4. Class 9 material (except magnetic material that may affect flight instruments).

6.29.1.5. Medical support equipment and supplies.

6.29.1.6. Class 8 aircraft batteries required for maintenance support or mobility requirements.

6.29.1.7. Hazardous materials accompanying Hammer Ace personnel.

6.29.1.8. Hazardous materials in "Excepted Quantities."

6.29.1.9. Consumer commodities.

6.29.2. Other classes/divisions of hazardous materials are prohibited.

6.29.3. The aircraft commander will be briefed by USAFE AMOCC or C2 Center, air terminal operations center (ATOC), or aerial port control center (APCC) on the following information concerning hazardous materials being carried:

6.29.3.1. Hazard class.

6.29.3.2. Proper shipping name.

6.29.3.3. DoD class or division when any type explosives are involved.

6.29.3.4. Net explosives weight (NEW) for all DoD class or division 1.1, 1.2, and 1.3 explosives.

6.29.3.5. Gross weight of hazardous materials other than the explosives above.

6.29.3.6. Passenger restrictions (Written authority must be furnished to cover movement of passengers with passenger prohibited cargo identified in AFJMAN 24-204).

6.29.3.7. Written notification indicating "prior permission required" (PPR), obtained from the next base to be transited.

6.29.3.8. Isolated parking and taxiing requirements.

6.29.3.9. Security classification, if appropriate.

6.29.3.10. Placard requirements.

6.29.3.11. Other special handling requirements.

6.29.4. Cargo Documentation: Aircraft commander will not accept hazardous materials which are not manifested and/or not certified by use of a **Shipper's Declaration for Dangerous Goods** prepared IAW AFJMAN 24-204 (**EXCEPTION:** An "Excepted Quantity" label will be used for items meeting the definition). It is the responsibility of the transportation function to ensure the hazardous materials are properly packaged, marked, and labeled. The aircraft commander will contact the C2 Center or air terminal operations center (ATOC) concerning any question on cargo suitability for air transportation.

6.29.5. Flight planning. When briefed IAW paragraph **6.29.4.**, the aircraft commander will:

6.29.5.1. Plan the flight to minimize over-flying heavily populated or otherwise critical areas. Approach landing, and takeoff tracks are excluded.

6.29.5.2. Enter "Hazardous Cargo" and the mission identifier or flight number in the appropriate section of the flight plan. Refer to FCG for country specific requirements concerning over-flight when transporting HAZMAT. Use remarks section of DD Form 175, **Military Flight Plan**, and other information section of DD Form 1801, **DoD International Flight Plan**, as appropriate for:

6.29.5.3. Any quantity of:

6.29.5.3.1. Class/Division 1.1, 1.2, or 1.3 explosives.

6.29.5.3.2. Class/Division 1.4 explosives (regardless of weight) that transit the United Kingdom, Italy, or Hawaii.

6.29.5.4. All other class/divisions of hazardous materials (except class 9 or ORM-D/consumer commodities) when shipped in quantities of 1,000 pounds or more aggregate weight.

6.29.6. Prepare a departure message at stations when a C2 Center is not available. The "remarks" section of the departure message should include the following information:

6.29.6.1. Class/division of hazardous material aboard, include NEW for explosives and gross weight for other hazardous.

6.29.6.2. Request for special handling; for example, isolated parking, security, technical escort teams, etc.

6.29.7. If estimated time en route (ETE) is less than 1-hour, or if other circumstances preclude timely message receipt at destination, notify the base of first intended landing by priority telephone of the ETA and information listed in Paragraph **6.29.3.** Ask the C2 Center at the departure base to relay this information to base operations at the point of first intended landing when a C2 Center is available.

6.29.8. Before engine start, notify the controlling agency parking location, approximate engine start time, and verify the firefighting agency has the hazardous materials information; otherwise, request the following be relayed to the firefighting agency:

6.29.8.1. Class/division of hazardous material aboard.

6.29.8.2. NEW for DoD class or division 1.1, 1.2, and 1.3 explosives.

6.29.8.3. Estimated time of departure.

6.29.9. En route. Normal procedures apply.

6.29.10. Before landing. Unless specifically prohibited by the theater commander of FLIP planning, contact the agency specified in FLIP, base operations dispatcher, control tower or approach control at least 30 minutes (or as soon as practical) before ETA to announce the "hazardous materials" are aboard. Transmit the mission number, ETA, and information in paragraph 6.29.3. Request the information be relayed immediately to base operations or the civil airport manager, crash and fire protection agency and other support activities. If landing at a CONUS civil airport without a tower, give the above information to the nearest FAA flight service station.

6.29.11. Aircraft parking. DoD requires aircraft carrying DoD class or division 1.1 or 1.2 explosives be parked in areas isolated from non-associated personnel and facilities. When such cargo is aboard, aircraft commanders are responsible for ensuring cargo is correctly identified to the tower or ground control. When aircraft are not directed to an isolated area, identify the cargo again to tower or ground control. When identification is acknowledged, the host is solely responsible for selecting the parking area. Should host procedures be questionable, submit trip reports or hazard reports as appropriate, to document such occurrences. Host base may direct isolated parking for other hazardous materials IAW local procedures.

6.29.12. The military host is responsible for placarding aircraft. When missions operate on nonmilitary bases, the briefing to the aircraft commander will include placarding requirements and, if required, placards will be furnished at the onload base. The shipper and receiver must make prior arrangements with the airport manager of shipments of hazardous materials requiring placarding. The shipper and receiver are responsible for cargo identification, firefighting procedures, and isolated parking requirements.

6.30. Handling of Classified Cargo, Registered Mail, NMCS/VVIP/FSS Shipments, and Courier Material.

6.30.1. Aircraft commanders may accept or decline shipments at their discretion based on mission requirements, crew, or aircraft capabilities. Receipts will be obtained for classified cargo, NMCS/VVIP/FSS shipments, and registered mail at the on-load and off-load station using the cargo manifest.

6.30.1.1. Defense Courier Service (DCS) couriers coordinating with the aircraft commander are authorized to designate officer or enlisted, (E-5 and above) crew members on military aircraft as couriers to escort and safeguard courier material when other qualified personnel are not available. Qualified passengers will be designated before designating crew members. The following restrictions apply:

6.30.1.2. Primary crew members will not be designated without the consent of the aircraft commander.

6.30.1.3. Crew members on aircraft scheduled to stop at locations where DCS couriers cannot provide en route support will not be designated as couriers. This does not relieve the aircraft commander of the responsibility for life and death urgent shipments.

6.30.2. During stops at en route locations supported by DCS stations, DCS couriers are required to meet designated couriers to protect the material. During unscheduled stops, crew members may place courier material in temporary custody of the following agencies listed in descending order of priority:

6.30.2.1. DCS courier.

6.30.2.2. TOP SECRET control officer of the US armed forces.

6.30.2.3. US Department of State diplomatic courier.

6.30.2.4. US Department of State activity.

6.30.2.5. US military guards.

6.30.2.6. US DoD civilian guards.

6.30.3. If unable to follow the itinerary to the destination of the courier material, or if material is lost, stolen, or otherwise compromised, report circumstances to the nearest armed forces courier station and notify the local US military commander or US government activity.

Section 6D—Departure

6.31. On Time Takeoffs. Departures are on time if the aircraft is airborne within –30 /+15 minutes of scheduled takeoff time. Operational mission FRAG will show block-in and block-out times. Training mission FRAG will show takeoff and landing times. The following applies for early departures:

6.31.1. Home Station. Early departures are authorized to prevent a delay due to weather, ATC restrictions, airfield or aircraft operational limitations, to adjust mission flow during a large scale operation, or if approved through USAFE AMOCC or Wing Command Post, as appropriate.

6.31.2. En route Stations. Early departures at en route stations may be authorized through USAFE AMOCC or local C2 Center, provided the impact on local and downrange facilities is evaluated.

6.32. Weather Minimums for Takeoff.

Table 6.2. Weather Minimums for Takeoff.

Mission	Visibility	Remarks
Operational	RVR 1000	When less than RVR 1600, but equal to or greater than RVR 1000, the crew may take off provided the runway has dual RVR readouts and displays (minimum RVR 1000 on both) and runway centerline lighting is operational. For any takeoff below 1600 RVR, the crew must be fully qualified.
All others	RVR 1600	For runways with more than one operating RVR readout, RVR must read 1600 minimum on all.

NOTE 1: If no RVR readout is available for the departure runway, visibility must be reported to be 1/2 mile (800 meters).

NOTE 2: When weather is below approach and landing minimums (ceiling or visibility) a takeoff alternate is required (See paragraph 6.19.).

Section 6E—En route

6.33. Flight Progress.

6.33.1. Prior to flight on overwater missions, plot the oceanic portion of the flight on an appropriate scale (OPC) chart. Annotate the chart with the mission number, call sign, aircraft commander's name, filed route, ATC cleared route and date. If practical, chart may be reused.

6.33.2. Anytime the INS/FMS NAVAID/waypoint database is not current or a pilot-defined waypoint will be used for navigation, two pilots will verify the NAVAID/waypoint information before selection as the active waypoint. Check both the coordinate information and the distances between waypoints against the flight plan.

6.33.3. In-Flight, use all available NAVAIDS to monitor INS/FMS performance. Immediately report malfunctions or any loss of navigation capability which degrades centerline accuracy to the controlling ARTCC. (Abnormal Procedures. Refer to appropriate FLIP documents for latest abnormal/emergency procedures.) Use the following procedures for flight progress:

6.33.3.1. Obtain a coast out fix before, or immediately on entering the Category I Route or over-water segment. Perform a gross error check using available NAVAIDS and annotate the position and time on the OPC.

6.33.3.2. When approaching each waypoint, recheck coordinates for the next waypoint.

6.33.3.3. Plot the position of both INSs/FMSs and time on the OPC approximately 10-minutes after each oceanic waypoint. Ensure the INSs/FMSs are not diverging and compliance with ETA tolerances. If a divergence is noted, attempt to identify the malfunctioning INS/FMS by comparing winds, TAS, GS, magnetic track, etc. with the CFP.

6.33.3.4. If a revised clearance is received, record and plot the new route of flight on the OPC.

6.33.4. Upon return to home station, turn in the OPCs and applicable CFPs to the squadron DOV. Squadrons will retain the OPCs, CFPs, and associated materials for a minimum of 3 months.

6.33.5. Operations in International/Territorial Airspace. (See FLIP, FCG, and AP for further guidance) US military aircraft and DoD personnel entering another nation to conduct US government business therein must have diplomatic clearance to enter their airspace. Clearances for US international air operations are obtained through US officials IAW the FCG. Refer to FLIP for discussion of international strait passage, archipelagic sea lane passage, procedures to follow if intercepted, and other foreign sovereignty issues.

6.33.5.1. There are essentially two types of airspace: international airspace and territorial airspace. International airspace includes all airspace seaward of coastal states' territorial seas. Military aircraft operate in such areas free of interference or control by the coastal state. Territorial airspace includes airspace above territorial seas, archipelagic waters, inland waters, and land territory and is sovereign airspace. Overflight may be conducted in such areas only with the consent of the sovereign country.

6.33.5.2. Consistent with international law, the US recognizes sea claims up to 12 nautical miles. Diplomatic constraints and/or a lack of diplomatic clearances usually result in missions operating in international airspace. Because of this, it is imperative sufficient information be provided far enough in advance to allow compliance with FCG requirements established by the countries concerned. The US does not normally recognize territorial claims beyond 12 nautical miles; however, specific guidance from certain US authorities may establish limits that differ from the standard.

6.33.5.3. Flight Information Region (FIR). An FIR is defined as airspace within which flight information and related services are provided. An FIR does not reflect international borders or sovereign airspace. Aircraft may operate within an established FIR without approval of the adjacent country, provided the aircraft commander avoids flight in their sovereign airspace.

6.33.5.4. Aircrews on a flight plan route that takes them into territorial airspace for which approved aircraft clearance was obtained should not amend entry or exit points.

6.33.5.5. Violations of foreign sovereignty result from unauthorized or improper entry or departure of aircraft. Aircrews should not enter into territorial airspace for which a clearance has not been duly requested and granted through diplomatic channels.

6.33.5.6. Air traffic control agencies are not vested with authority to grant diplomatic clearances for penetration of sovereign airspace where prior clearance is required from the respective country. Aircraft clearances are obtained through diplomatic channels only. Under no circumstances should aircrews construe a clearance that routes their mission over sovereign airspace that was not approved through diplomatic channels before mission departure, as being valid authorization.

6.33.5.7. In the event air traffic control agencies challenge the validity of a flight routing or attempt to negate existing clearances, pilots must evaluate the circumstances. The normal response will be to attempt to advise ATC that the aircraft will continue to planned destination as cleared in international airspace. The key phrase is “in international airspace.” Safety of flight is paramount in determining mission continuation.

6.33.5.8. Aircrews operating missions requiring unique or specially developed routing will normally be briefed at home station, onload station, and/or by the last C2 facility transited before performing the critical portion of the mission.

6.33.5.9. Aircrews normally are not tasked to and should not fly “due regard” unless specifically directed in the mission FRAG. The “due regard” or “operational” option obligates the military aircraft commander to be their own air traffic control agency and separate their aircraft from all other air traffic. If operational requirements dictate, aircraft commanders may exercise the “due regard” option to protect their aircraft. When the threat has terminated, the aircraft will return to normal Air Traffic Services. Refer to FLIP GP for guidance on “due regard.” **NOTE:** Due regard is valid only over international waters.

6.33.6. Altitude Reservations. Each ALTRV will be coordinated through the European Central Altitude Reservation Facility according to FLIP AP 2, **Chapter 1** (normally not a part of C-20A operations).

6.33.7. AF Form 72, **Air Report (AIREP)**. When directed by departing weather facility, take and record an AIREP at each position report over a Category I Route. Identify inaccurate CFP winds by special report if the average wind for a route segment exceeds either 30 degrees error in wind direction or 25 knots in wind speed. Turn in completed AF Form 72 to the destination USAF weather facility.

6.34. Navigational Aid Capability.

6.34.1. North Atlantic minimum navigation performance specification (MNPS) standards (FLIP AP/2) and procedures for compliant and non-compliant aircraft are mandatory.

6.34.2. Reduced Vertical Separation Minimum (RVSM) Airspace. Airspace where RVSM is applied is considered special qualification airspace. Both the operator and the specific aircraft type must be

approved for operations in these areas. All USAFE C-20As are not yet approved for unrestricted use in the full RVSM envelope. Once the USAFE C-20As and aircrew are in compliance, refer to FLIP AP/2 for the most current RVSM requirements. Follow these guidelines:

6.34.2.1. Both primary altimeters, at least one autopilot, the altitude advisory system, and the transponder must be fully operational before entry into RVSM airspace. Should any of this equipment fail prior to entering RVSM airspace, request a new clearance so as to avoid this airspace.

6.34.2.2. The autopilot should be engaged during level cruise, except when circumstances such as the need to re-trim the aircraft or turbulence require disengagement.

6.34.2.3. Continuously cross check the primary altimeters to ensure they agree ± 200 ft.

6.34.2.4. Should any of the required equipment fail after entry into RVSM airspace, immediately notify ATC and coordinate a plan of action.

6.34.2.5. Document (in the aircraft forms) malfunctions or failures of RVSM required equipment, including the failure of this equipment to meet RVSM tolerances.

6.34.3. Basic Area Navigation (BRNAV) Airspace. Airspace where BRNAV is applied is considered special qualification airspace. Both the operator and the specific aircraft type must be approved for operations in these areas. All USAFE C-20As are not yet approved for unrestricted use in the full BRNAV envelope. Once the USAFE C-20As and aircrew are in compliance, refer to FLIP AP/2 for the most current BRNAV requirements. BRNAV navigation accuracy criteria is RNP-5. Aircraft with integrated GPS have no BRNAV restrictions.

6.34.3.1. Minimum equipment to operate in BRNAV airspace is one INS capable of updates or a FAA approved GPS with Receiver Autonomous Integrity Monitoring (RAIM) or equivalent system. Flights entering BRNAV airspace after long overwater flight must be especially aware of BRNAV tolerances and update accordingly.

6.34.3.2. Aircraft unable to maintain BRNAV tolerances must advise ATC immediately and take appropriate coordinated action.

6.34.4. Required Navigation Performance (RNP) Airspace. Airspace where RNP is applied is considered special qualification airspace. Both the operator and the specific aircraft type must be approved for operations in these areas. RNP airspace is being incorporated around the world to increase air traffic capacity by decreasing separation requirements between routes.

6.34.4.1. RNP-10. Compliance includes navigation accuracy within 10NM of actual position 95% of the time. Aircraft not possessing integrated GPS with Receiver Autonomous Integrity Monitoring (RAIM), or equivalent system, are limited in how long they may operate in RNP-10 airspace. The following are RNP-10 requirements:

6.34.4.1.1. Flight Planning. Verify aircraft is approved for RNP operation, determine mission impact and verify the letter "R" or appropriate letter is annotated in block 10 of the DoD Form 1801, **International Flight Plan**.

6.34.4.1.2. Preflight Procedures. Review maintenance logs to ascertain status of RNP-10 equipment and particular attention should be paid to navigation antennas and the condition of the fuselage skin in the vicinity of these antennas.

6.34.4.1.3. Enroute. At least two long range navigation systems certified for RNP-10 must be operational at the oceanic entry point. Periodic crosschecks will be accomplished to identify navigation errors and prevent inadvertent deviation from ATC cleared routes. Advise ATC of the deterioration or failure of navigation equipment below navigation performance requirements and coordinate appropriate actions.

6.34.4.1.4. Document (in the aircraft forms) malfunctions or failures of RNP required equipment, including the failure of this equipment to meet RNP tolerances.

6.35. CIRVIS and Other Reports. Report all vital intelligence sightings from aircraft as indicated in FLIP planning or FLIP En route Supplement.

6.35.1. Aircraft subjected to in-flight harassment or hostile action by foreign aircraft will immediately contact the nearest US Air Force air and ground voice facility and report the encounter. Include aircraft nationality, type, insignia, or any other identifying features; note position, heading, time, speed when harassed, and the type of harassment. Request relay of the report to the nearest C2 Center. Also attempt to contact the nearest command post when in UHF and VHF range.

6.35.2. Other incidents will be reported as indicated in JCS Pub 6, Volume V and AFM 10-206, *Operational Reporting*.

6.36. In-Flight Meals. The AC and the copilot will not eat meals at the same time in-flight, and their meals should consist of different menu items. Only one service tray may be in the flight deck at any time.

6.37. Communications.

6.37.1. HF Communications. Confine message traffic to essential operational matters. Perform an HF radio ground check before takeoff when the use of HF radio may be required for ATC or C2 communications. Establish HF contact before going out of UHF and VHF range. If unable to establish HF contact with the controlling HF station and an alternate means of relay of ATC information in oceanic areas is not available, return to the nearest suitable support base.

6.37.2. General. Provide ARTCC position and weather observations when required. If unable to contact an ATC agency, attempt relay through other aircraft or the GLOBAL HF stations.

6.38. In-flight Emergency Procedures. Report deviations from directives that may occur as a result of an emergency in accordance with AFI 11-202V3, the USAFE Supplement and this directive.

6.38.1. Notification of Controlling Agencies. When practical after completing the aircraft emergency action checklists and associated actions crews should furnish the controlling agency and USAFE AMOCC a description of the difficulty, assistance required, intentions, and any other pertinent information.

6.38.2. A CONFERENCE SKYHOOK may be initiated when additional expertise is necessary to cope with emergencies or other conditions. Communications procedures are as follow:

6.38.2.1. Local Area. When in UHF or VHF range, initiate the conference over appropriate frequencies.

6.38.2.2. En route. When out of UHF range, use HF radios to establish a phone patch with the nearest or controlling C2 center as appropriate.

6.38.2.3. Provide the following information when time permits.

6.38.2.3.1. Narrative description of the situation to include actions taken by the crew and the intentions of the aircraft commander.

6.38.2.3.2. Fuel on board and hours of endurance.

6.38.2.3.3. Position.

6.38.2.3.4. Altitude and flight conditions.

6.38.2.3.5. Number of personnel and distinguished visitors (DV) on board.

6.38.2.3.6. Qualification of aircraft commander.

6.38.2.3.7. Planned landing base.

6.38.2.3.8. ETA at landing base.

6.39. Need for Medical Assistance. When a person aboard the aircraft requires medical care, inform the station of intended landing in sufficient time to notify/dispatch medical personnel may meet the aircraft. Include sex, approximate age, and the major complaint in the request.

6.40. Weather Forecasts.

6.40.1. It is the pilot's responsibility to obtain destination weather before descent.

6.40.2. The primary means is any US Air Force base weather station via pilot-to-meteorologist service (PMSV) or through a US Air Force aeronautical station. Request weather conditions from the actual destination weather shop if available.

6.40.3. For ENAME operations, USAFE/OWS is the preferred contact for weather information. (Sembach AB DSN 314-496-6145 or COMM (49) 6302-67-6145).

6.40.4. The ATC system can provide weather information to en route aircraft but aircraft separation and safety are higher priority.

6.40.4.1. The ARTCCs have a limited capability to provide weather information to en route aircraft within CONUS.

6.40.4.2. SIGMET (significant meteorological information) advisories will be transmitted from the servicing ATC unit. Crews will consider all SIGMETs valid for their aircraft until verified as not applicable with a military METRO service.

Section 6F—Arrival

6.41. Descent.

6.41.1. Before descent into unfamiliar areas, appropriate terrain charts including Operational Navigation Chart (ONC), Sectional Aeronautical Chart, Tactical Pilotage Chart (TPC), or Joint Operations Graphic (JOG), or INTEL imagery should be reviewed to increase aircrew situational awareness of obstructions. Primary crewmembers will not be involved in duties other than aircraft operations, descent and approach monitoring, and required checklist items from the initial descent point to landing.

6.41.2. Before starting an en route descent or instrument approach, pilots will confirm that existing weather is reported to be at or above required minimums for the lowest compatible approach. Pilots shall increase the published visibility minimums of an instrument approach by 1/2 SM or as noted in NOTAMs, on ATIS, or on the approach plate, when the runway approach lighting system (ALS) is inoperative. **NOTE:** This applies only to the ALS itself, not to VASIs, PAPIs, and other lights that are not a component of the ALS.

6.42. Instrument Approach Procedures.

6.42.1. Night and Marginal Weather Operations. Fly a precision approach, if available, at night or during marginal weather. If a precision approach is not available, fly any available approved instrument approach. For training or evaluations at familiar fields, pilots may fly non-precision approaches or VFR traffic patterns. The pilot not flying the approach should monitor a precision approach, when available, to enhance safety during VFR and visual approach training.

6.42.2. Before starting an instrument approach, pilots will confirm their aircraft can meet or exceed all climb gradients specified in the missed approach procedure, based on the number of engines operating when the approach is begun. If missed approach climb charts are not available, use the takeoff obstacle clearance charts. If unable to meet required climb gradients, pilots must coordinate alternate missed approach procedures with ATC that will ensure terrain clearance, before commencing the approach. If this is not possible, do not attempt the approach.

6.42.3. Minimums. The aircraft approach category for the C-20A is category C. When approach speed exceeds 140 KIAS, use category D minimums.

6.42.3.1. For a precision approach, the decision height will provide a height above touchdown of 200-feet or higher.

6.42.3.2. For PAR approaches, visibility will be no lower than RVR 2400 (730 meters) or 1/2 mile visibility (800 meters) without RVR readout available.

6.42.3.3. CAT II ILS decision height will provide a minimum HAT of 100-feet. A published radar altimeter setting is required. Minimum RVR is 1,200. Maximum crosswind is 10 knots (15 knots for training).

6.42.3.4. If not published by category, minimum ceiling and visibility will be as published, but in no case lower than 500-1 and 1/2 (Cat C) or 600-2 (Cat D).

6.42.4. If established on a segment of the approach or being radar vectored to final approach and the weather is reported or observed to be below approach minimums, the aircraft commander may continue the approach to the MAP/DH.

6.42.4.1. The aircraft commander has final responsibility for determining when the destination is below designated minimums and for initiating proper clearance request.

6.42.4.2. If deciding to abandon the approach, level off (or descend if a lower altitude is required for the missed approach procedure). Comply with the last assigned clearance until a new or amended clearance is received.

6.42.4.3. CAT II approaches will not be continued if weather is reported below CAT II minimums.

6.42.4.4. If the approach is continued, aircraft commanders must plan to have sufficient fuel available to complete the approach and missed approach and proceed to a suitable alternate with normal fuel reserve.

6.42.5. CAT II Procedures. Aircrews will not execute an actual CAT II ILS to minimums unless both pilots have completed CAT II training, received an evaluation, and are certified by the squadron commander. The following airfield and aircraft equipment must be operational:

6.42.5.1. Approach lights.

6.42.5.2. Runway centerline lighting.

6.42.5.3. High intensity runway lights or touchdown zone lights.

6.42.5.4. Approach end transmissometer.

6.42.5.5. ILS FAR field monitor.

6.42.5.6. Sequence flashers.

6.42.6. Alternate Flight Publications. The following publications are authorized if acceptable DoD FLIP products are not available:

6.42.6.1. United States Department of Commerce National Oceanic and Atmospheric Administration (NOAA).

6.42.6.2. Jeppesen and Host Government Instrument Approaches. May be used in IMC when approved by the HQ USAFE/DO after a USAFE TERPS review according to AFI 11-202V3 and USAFE Supplement. Crews will receive approval before departure or contact the USAFE AMOCC for approval before flying these approaches in IMC. To enhance mission planning and accomplishment, USAFE AMOCC/XOPS will forward all required approach/departure reviews to the USAFE TERPS cell as soon as possible. USAFE TERPS should make every effort to forward approval and/or disapproval, as soon as possible.

6.43. Classified Equipment and Material.

6.43.1. Equipment. When classified equipment is onboard, ensure the C2 Center or base operations office is aware of the requirement for aircraft security according to **Chapter 7** of this AFI. At bases not under jurisdiction of the Air Force, ensure the aircraft and equipment are protected. AFI 31-402, *Information Security Program Management*, provides specific guidance concerning the security of various levels of classified equipment aboard aircraft.

6.43.2. Material. The CSO, when aboard, will be responsible for all COMSEC required for mission accomplishment. Ensure Communications Security (COMSEC) and other classified materials are turned in at destination and receipts are obtained. The On-site C2 center will provide temporary storage for COMSEC and other classified materials during en route, turnaround, and crew rest stops. If a storage facility is not available, the aircraft safe may be used for material classified up to and including SECRET. Encrypted COMSEC will only be transferred to authorized DoD personnel.

6.43.3. Authentication and Classified Documents. Authentication and operational code documents are required for flights into an Air Defense Identification Zone (ADIZ), when specified by operations plans or theater directives, or when directed by the unit commander.

6.43.4. MODE 4/IFF Procedures. (Unit is encouraged to supplement this paragraph due to the ever changing ENAME Theater).

6.43.4.1. Aircrews will ensure that they have an operable mode 4 when required for mission accomplishment. Aircrews will conduct an operational ground test of the mode 4 (ground test assets permitting). Conduct an internal test for standard missions and an external test for contingency missions.

6.43.4.2. Attempt to fix an inoperable mode 4 before takeoff. Do not delay takeoff nor cancel a mission for an inoperable mode 4, except when the aircraft will transit an area where safe passage procedures are implemented.

6.43.4.3. CONUS: Aircrews can request the mode 4 interrogation check through NORAD on UHF frequency 364.2. Request an interrogation test through the appropriate Sector Operations Center (SOCC) shown in **Table 6.3**.

Table 6.3. Sector Operations Centers (SOCC)

CONUS SECTOR	LOCATION	CALL SIGN
Northeast	Griffiss Airport	Huntress
Southeast	Tyndall AFB	Oak Grove
Southwest	March ARB	Sierra Pete
Northwest	McChord AFB	Big Foot

6.43.4.4. Aircraft with inoperable mode 4 will continue their mission. Repairs will be accomplished at the first destination where equipment, parts, and maintenance technicians are available. When safe passage is implemented, aircraft will follow procedures for inoperable mode 4 as directed in the applicable airspace control order or ATO.

6.43.4.5. Ground and in-flight checks of the mode 4 are mandatory maintenance debrief items. Crews will annotate successful and unsuccessful interrogation of the mode 4 in aircraft forms (AFTO Form 781A).

6.43.4.6. Aircrews will carry COMSEC equipment and documents necessary to operate the mode 4 on missions when required for mission accomplishment. Prior to departing for any destination without COMSEC storage facilities, crews will contact their local COMSEC managers for guidance.

6.43.5. Any material left on the aircraft by the DV or party will be treated as privileged information and should be protected from casual inspection. Crewmembers may review any documents left unsecured to ascertain the level of protection required.

6.44. Unscheduled Landings. When an unscheduled landing or crew rest occurs at a base without a passenger facility, the aircraft commander should immediately advise the USAFE AMOCC and request assistance in arranging substitute airlift for passengers that are aboard.

6.44.1. The aircraft commander may utilize AF Form 15, **United States Air Force Invoice**, and its authority to acquire the appropriate meals, quarters, and transportation to support the service members. Upon return to home station, the aircraft commander's home unit will turn in the AF Form 15 to the local accounting liaison office.

6.45. Maintenance. Complete the AFTO Form 781 after each flight. After landing, crewmembers debrief maintenance personnel on the condition of the aircraft, engines, avionics equipment, and all installed special equipment as required. At stations without maintenance support, when a maintenance requirement exists the AC will ensure a thorough debrief is provided to the USAFE AMOCC and/or C2 agency before entering crew rest.

6.45.1. Aircraft Recovery Away from Home Station. When an aircraft will land at a base other than the MOB, the aircraft commander is responsible for ensuring the aircraft is turned to meet subsequent mission tasking.

6.45.1.1. Recovery items the aircrew may be responsible for include, but are not limited to: parking, aircraft servicing (including AGE usage), minor configuration changes to meet mission tasking, securing the aircraft before entering crew rest, coordinating aircraft security requirements, and completing AFTO 781-series forms maintenance.

6.45.1.2. In all cases where aircrews turn aircraft without qualified maintenance specialist assistance, comply with the appropriate maintenance tech order.

6.45.1.3. Aircrews are not qualified to accomplish the required ground inspections. In those instances where maintenance personnel are not available, the aircrew will enter a red dash symbol in the AFTO Form 781H, **Aerospace Vehicle Flight Status and Maintenance Document**, updating current status and enter a red dash symbol and a discrepancy that reflects that the applicable maintenance inspection (i.e. preflight, through-flight, basic post-flight) is overdue.

6.45.1.4. Flight crews off-station are authorized to fly aircraft on a red dash in status block of AFTO Form 781H for overdue –6 basic post flight/preflight or combined inspection normally performed by contract maintenance personnel. Ensure overdue inspection is documented in AFTO Form 781A and exceptional release is updated.

6.45.1.5. If enroute maintenance support is required, crews should contact the USAFE AMOCC and maintenance contractor to coordinate for required repairs. Once the impact on the mission is determined, crew should inform the USAFE AMOCC and home unit SDO before entering crew rest.

6.45.2. Aircraft Recovery at Home Station. After landing, crewmembers debrief maintenance personnel on the condition of the aircraft, engines, avionics equipment, and all installed special equipment as required.

6.46. Border Clearance. IAW FCG; AFPD 24-4, *Customs and Order Clearance*; AFI 24-401, *Customs-Europe*; AFI 24-402, *Customs-Pacific*; AFI 24-403, *Customs-Southern*; AFI 24-404, *Customs-Domestic* and related MAJCOM information.

6.46.1. Normal Operations:

6.46.1.1. The USAFE AMOCC is normally responsible for border clearance.

6.46.1.2. When staff support is not available, border clearance duties may be assigned to ground personnel, but the aircraft commander retains ultimate responsibility. When a C-20A aircraft is on-loaded at a base without an air traffic function, the aircraft commander is responsible for ensuring the following:

6.46.1.2.1. Crewmembers and passengers possess current passports and valid visas, when required.

6.46.1.2.2. Crewmembers and passengers have current certificates of immunization (shot record).

6.46.1.2.3. Cargo entry documents are in proper order.

6.46.1.2.4. Departing or entering the United States through a port-of-entry where border clearance can be obtained.

6.46.1.2.5. Obtaining border clearance for cargo, passengers, crew and baggage, if required, before takeoff to a foreign area or after arrival from a foreign area.

6.46.1.2.6. Spraying the aircraft (IAW the FCG and paragraph 6.47.).

6.46.2. Procedures for US Entry:

6.46.2.1. En route, the FA will distribute DD Form 1854, **Personal Customs Declarations**, to all passengers and crewmembers. The FA will also brief passengers and crewmembers on customs regulations, and prepare and compile necessary border clearance forms for the aircraft commander's signature.

6.46.2.2. En route, notify the C2 agency at the base of intended landing of any change in ETA to ensure that border clearance is accomplished as soon as possible after landing.

6.46.2.3. Obtain a permit to proceed when military necessities require that an aircraft (which has landed in the United States for customs clearance) proceed to another base in the US to obtain border clearance. The permit to proceed delays customs inspection of cargo, passengers, and crew until arrival at the off-load station and saves intermediate off-loading and reloading normally required for customs inspection. The permit to proceed is valid only to the airport of next landing where the border clearance must be completed or a new permit to proceed issued by a customs official. Do not make intermediate stops between the issue point of the permit to proceed and destination of manifested cargo/passengers unless required by an emergency situation or directed by the USAFE AMOCC.

6.46.2.4. When an aircraft lands for US border clearance, a US Customs representative normally will meet the aircraft to obtain the required documents. Do not deplane passengers or crewmembers unless necessary for safety or the preservation of life and property. Do not unload until approved by customs and agriculture personnel or their designated representatives. This procedure applies to the initial landing in the US and all landings required when operating on a permit to proceed or until all crew, passengers, and cargo complete final border clearance.

EXCEPTION: Crewmembers may deplane to perform external post-flight duties.

6.46.3. Inspections of US aircraft by foreign officials:

6.46.3.1. USAFE follows US Air Force policy on status of military aircraft as stated in the Foreign Clearance Guide (FCG), General Information, **Chapter 3**. In substance, this policy holds that US military aircraft are immune from searches, seizures, and inspections (including customs and safety inspections) by foreign officials. In addition, aircraft commanders must be aware of and adhere to any specific FCG provisions for individual countries.

6.46.3.2. If confronted with a search request by foreign authorities, aircrews should use the following procedures:

6.46.3.2.1. In most cases, search attempts may be halted simply by a statement of the aircraft commander to the foreign official that the aircraft is a sovereign instrumentality not subject to search without consent of USAF headquarters or the US Department of State officials in the country concerned. This should be clearly conveyed in a polite manner so as not to offend foreign authorities who may honestly, but mistakenly, believe they have authority to search US Air Force aircraft.

6.46.3.2.2. If foreign authorities insist on conducting a search, the aircraft commander should make every effort to delay the search until he or she can contact USAF headquarters or the appropriate embassy officials. The aircraft commander should then notify these agencies of foreign request by the most expeditious means available and follow their instructions.

6.46.3.2.3. If foreign officials refuse to desist in their search request, pending notification to USAF headquarters or the appropriate embassy, the aircraft commander should indicate that he or she would prefer to fly the aircraft elsewhere (provided fuel, flying time, and mechanical considerations permit a safe flight) and request permission to do so.

6.46.3.2.4. If permission is refused and the foreign authorities insist on forcing their way on board an aircraft, the aircraft commander should state that he protests the course of action being pursued and that he intends to notify both USAF headquarters and the appropriate American embassy of the foreign action. The aircraft commander should not attempt physical resistance, and should thereafter report the incident to USAF headquarters and appropriate embassy as soon as possible. The aircraft commander should escort foreign authorities if the inspection cannot be avoided.

6.46.3.3. Other procedures may apply when carrying sensitive cargo or equipment. Follow these procedures and applicable portions of classified FCG supplements.

6.46.3.4. If the aircraft lands for emergency or temporary reasons, the aircraft commander will ensure no cargo, baggage, personal property, or equipment is removed from the aircraft. Additionally, no passengers or crewmembers will depart the landing place unless removal or departure is necessary for safety or preservation of life and property.

6.47. Insect and Pest Control.

6.47.1. Aircraft commanders will ensure required spraying is accomplished according to AFJI 48-104, *Quarantine Regulations of the Armed Forces*, DoD FCG, or as directed by higher headquarters. Certify the spraying on the appropriate Customs forms or document provided by the country transited. Aircraft should never be sprayed with passengers on-board. See the FCG for exceptions.

6.47.1.1. When spraying is required, use insecticide, aerosol d-phenothrin-2 percent, National Stock Number (NSN) 6840-01-067-6674 (or equivalent), to spray the aircraft and: direct the nozzle toward the ceiling of the compartment or space being sprayed; spray spaces inaccessible from within the aircraft after completely loading fuel, baggage, cargo, and passengers, including aft equipment compartments, and other similar spaces.

CAUTION

If the insecticide label directs disembarkation after use, spray prior to boarding crew or passengers. Close all doors for 10 minutes after dispensing and ventilate for 15 minutes before allowing anyone on board.

6.47.1.2. Spray for 15 seconds unless longer periods are specified for the country being transited.

NOTE:

Keep used aerosol cans separate from other trash so they may be disposed of safely.

6.47.2. Responsibility of Aircraft Commander In-flight. When seeing any insect or rodent infestation of the aircraft in-flight, notify the destination C2 Center, base operations, or airport manager of the situation before landing so the proper authorities can meet the aircraft.

6.47.3. Procedure at Aerial Port of Disembarkation (APOD). On arrival at an APOD, open crew entrance door only to enplane officials required to inspect the aircraft for insect or rodent infestation or to deplane the minimum number of crewmembers required for block-in duties. Do not on-load or off-load cargo or passengers until the inspection is satisfactorily completed. This procedure may be altered to satisfy mission or local requirements, as arranged by the base air terminal manager or the local C2 organization.

Section 6G—Miscellaneous

6.48. Dropped Object Prevention. If an externally dropped object is discovered, the flight crew will:

6.48.1. Notify the USAFE AMOCC, C2 or controlling agency of the mission as soon as practical to include: routing, altitude, winds, weather, etc.

6.48.2. Notify contract maintenance through the USAFE AMOCC after landing.

6.49. Cockpit Voice Recorder (CVR). If involved in a mishap or incident, after landing and terminating the emergency, open the CVR power circuit breaker.

6.50. Life Support Equipment Documentation.

6.50.1. Before departing home station or en route stations, the aircraft commander or designated representative, normally the FA or FM, will review, sign, and date the AFTO Form 46, **Pre-positioned Life Support Equipment**, to ensure all required life support and survival equipment have been certified as installed by aircrew life support. Ensure appropriate number and type of life preservers are aboard for over-water missions carrying children and infants.

NOTE:

This is normally accomplished by the FA on passenger missions and by the FM on Local trainers.

6.50.2. Missing Equipment. Aircrew members discovering equipment missing will accomplish the following:

6.50.2.1. Make an AFTO Form 781A entry for equipment found missing. Additionally, ensure equipment removed from the aircraft at an en route station is documented in the AFTO Form 781A.

6.50.2.2. Annotate AFTO Form 46, **Prepositioned Life Support Equipment**, in the next vacant column indicating the quantity remaining for the item. Ensure the ICAO location designator is entered above the check number of that column. Leave the AFTO Form 46 on board the aircraft in the event of an en route crew change.

6.50.2.3. Advise the aircraft commander and determine whether the missing equipment should be recovered or replaced before mission continuation.

6.50.2.4. Assist, as required, in preparing reports of survey for missing equipment.

6.50.3. Additional Equipment. If more equipment is discovered during the preflight than is annotated on the AFTO Form 46, annotate the total quantity in the next vacant column for the item. Ensure the ICAO location designator is entered above the check number of that column.

6.51. Not Used.

6.52. Weather Debrief. Debrief USAFE/OWS or the base weather station duty forecaster, if available, on significant weather encountered en route. Give the completed AF Form 72, **AIREP**, to the forecaster if directed by the previous weather station.

6.53. No Show Passenger Baggage. No-show passenger baggage or baggage of passengers removed from flight will be downloaded before departure.

6.54. Airfield Data Reports. In the interest of safety, aircrews will provide feedback when:

6.54.1. Transiting airfields with “Day Pending Feedback”, “Crew Feedback Required” or similar comment in the remarks column of the basic airfield and suitability information section of the ASRR. Planners will note the requirement for such feedback on the mission tasking. Pass information to USAFE AMOCC/XOPA and HQ AMC/DOVS.

6.54.2. Transiting strange airfields or airfields where conditions may adversely affect subsequent flight. Report airfield characteristics that produce illusions, such as runway length, width, slope, and lighting, as compared to standard runways, sloping approach terrain, runway contrast against surrounding terrain, haze, glare, etc. Information should be entered into Supplemental Theater Information Files (STIF) in GDSS.

6.55. Impoundment of Aircraft. If an aircraft is involved in a serious in-flight incident, the aircraft commander should impound the aircraft immediately after landing and contact USAFE AMOCC or appropriate C2 agency for further instructions.

Chapter 7

AIRCRAFT SECURITY

7.1. General. This chapter provides guidance on aircraft security and preventing and resisting aircraft piracy (hijacking). AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*, AFI 31-101V1, *Air Force Physical Security Program*, and specific USAFE security publications contain additional guidance. Aircrews do not release information concerning hijacking or identify armed aircrew members or missions.

7.2. Security. The AC will ensure that adequate security of the aircraft is provided at all times. This will include determining that the aircraft is properly chocked and responsible personnel on both military and civilian airfields are advised as to the length of stay and where the crew may be contacted.

7.3. Security Procedures.

7.3.1. Briefings. When required, Aircraft Commander will receive a threat assessment and security capability evaluation briefing at home station and receive updates at en route command and control facilities.

7.3.2. The AC will have the aircraft locked with security system employed during all RONs and at other times when a crewmember is not at the aircraft. Wipe the immediate area around lock and latches clean to aid in investigation of a forced entry. Report any unauthorized entry or tampering to the OSI, security police or local authorities, and the USAFE AMOCC or C2 agency. Have aircraft thoroughly inspected before flight.

7.3.3. Security awareness is crucial to effective mission accomplishment. Aircrews must always remain vigilant to their surroundings, especially at high threat, low security locations. During pre-flight activities, aircrews will inspect accessible areas, to include aircraft wheel wells, and tail cone compartment for unfamiliar devices. Report any suspicious items to host security forces. Aircrews will maintain a heightened security posture throughout all pre-takeoff activities.

7.4. Protective Standards for Aircraft Carrying Distinguished Visitors (DV). This paragraph applies specifically to aircraft transporting DVs, code 4 or above.

7.4.1. Security will be requested by the USAFE AMOCC when sending the diplomatic clearance message and by the planners when requesting a Prior Permission Required (PPR) number, if required. This will prevent a lengthy coordination effort upon arrival that could impact planned ground time and crew rest.

7.4.2. AF Bases. Special crew procedures are not required at AF bases. Security will be provided.

7.4.3. Non-AF Bases. Aircraft Commander is responsible for aircraft security at en route stops:

7.4.3.1. DoD Installation. Notify the base security of estimated arrival and departure times. Request continuous security surveillance during the entire ground time. If the installation is unable to comply, arrange for the best protection available.

7.4.3.2. Foreign or Civilian Installations. Notify the airport manager, commander, or defense attaché to arrange for aircraft security. If available security is inadequate, purchase additional security using AF Form 15, **Unites States Air Force Invoice**.

7.4.3.3. Inadequate Security. If in the aircraft commander's opinion airfield security is inadequate and the safety of the aircraft is in question, they 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. 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 aircraft commander 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.

7.5. Not used.

7.6. Preventing and Resisting Hijacking.

7.6.1. The safety of the passengers is the primary concern on passenger missions.

7.6.2. An aircraft is most vulnerable to hijacking when the aircrew is aboard and the aircraft is ready for flight.

7.6.3. A concerted effort must be made to prevent the hijacking of military aircraft by detecting potential hijackers before they board the aircraft. Should preventive efforts fail, any actual attempt to hijack a military aircraft must be resisted in a manner appropriate to the situation.

7.6.4. Delaying actions have been most successful in overcoming hijackings without loss of life or property.

7.6.5. Assistance to hijacked civil or military contract aircraft will be rendered as requested by the aircraft commander and the authority exercising operational control of the anti-hijacking effort.

7.6.6. In the event an aircraft involved in an aircraft hijacking situation is carrying documents, equipment, or material that DoD has determined to be highly sensitive, DoD will provide FAA, and where appropriate, the FBI, with all pertinent information. Where possible, the FAA will consult and cooperate with the DoD before directing any law enforcement activity.

7.6.7. Since air piracy may be committed by political terrorists or by individuals to whom the threat of death is not a deterrent but a stimulus, ordinary law enforcement procedures may be ineffective. Thus, successful conclusion of a hijacking situation may require use of specialized law enforcement techniques and procedures.

7.7. Preventive Measures. Commanders at all levels must ensure preventive measures are taken to minimize access to the aircraft by potential hijackers. When away from home station, the aircraft commander will comply with provisions of this chapter and AFI 13-207, as supplemented.

7.7.1. Preventive measures include the following: The host station passenger processing or manifesting facility should conduct anti-hijacking inspections. The aircraft commander or designated representative will accomplish the anti-hijacking inspection of passengers and baggage in the absence of qualified passenger service representatives. Do not board passengers until the aircraft commander is fully satisfied with inspection results.

7.7.2. Passengers will not carry weapons or ammunition on their person or in hand-carried baggage aboard an aircraft except special agents, guards of the Secret Service or State Department, and other individuals specifically authorized to carry weapons.

7.7.3. If weapons must be cleared, ask the individual to move to a safe, clear area at least 50-feet from any aircraft, equipment, or personnel before unholstering or unslinging and clearing their weapons IAW standard safety procedures.

7.8. Initial Response. When an act of air piracy involves an Air Force installation or aircraft within the United States, expect response according to the following guidelines until such time as FAA assumes active direction of anti-hijacking efforts. Resist all attempts to hijack a military aircraft. Resistance may vary from simple discussion through deception and subterfuge, to direct physical confrontation, including the prudent use of weapons. See DoDD 5210.56 for firearm requirements. Use the following guidelines to help counter a hijacking, actual or threatened, while the aircraft is on the ground:

7.8.1. Delay movement of the aircraft to provide time for ground personnel and the aircrew to establish communication and execute coordinated resistance actions.

7.8.2. The authority for determining when ground resistance will be discontinued is vested in the highest available level of command. When adequate communication cannot be established, or when time does not permit, this authority is delegated in the following order:

7.8.2.1. USAFE/CC.

7.8.2.2. MAJCOM commanders in whose area of responsibility (AOR) the airfield lies.

7.8.2.3. Senior operational commander on scene.

7.8.2.4. Aircraft commander in compliance with USAFE directives.

7.9. In-Flight Resistance. Training programs for anti-hijacking are according to AFI 11-2C-20V1. As a reminder, after airborne, success in thwarting a hijacking depends on the resourcefulness of the aircrew. Many variables of a hijacking preclude use of any specific counter-hijacking procedure. Some key factors should be evaluated before deciding a course of action to be taken, including the nature of the threat, danger to life or crippling damage to the aircraft in-flight, destination indicated by the hijacker, and the presence of sensitive material onboard. Some counter-hijacking actions the aircrew may consider are:

7.9.1. Engage the hijackers in conversation to calm them and to evaluate what course of action might be effective.

7.9.2. Dissuade the hijacker.

7.9.3. Use facts or deception to convince the hijacker intermediate stops are necessary.

7.9.4. Propose more favorable alternatives, such as landing in a neutral, rather than a hostile, country.

7.9.5. Exploit any reasonable opportunity to incapacitate or overcome the hijacker physically, including the prudent use of firearms.

7.10. Communications Between Aircrew and Ground Agencies. Crews facing a hijacking threat will notify ground agencies by any means available as soon as practical and follow-up with situation reports as circumstances permit.

7.10.1. If possible, transmit an in-the-clear notification of hijacking to ATC. Controllers will assign IFF code 7500 (does not preclude subsequent selection of code 7700).

7.10.2. If in-the-clear transmissions are not possible, report “am being hijacked” by setting transponder to code 7500. If unable to change transponder code, or when not under radar control, transmit a radio message to include the phrase “(call sign) transponder seven five zero zero.”

7.10.3. Controllers will acknowledge receipt and understanding of transponder code 7500 by transmitting “(call sign) (facility name) verify squawking 7500.” An affirmative reply or lack of reply from the pilot indicates confirmation and proper authorities are notified.

7.10.4. After start of a hijacking, aircrew may indicate to ATC that in the clear communications are not possible by using the word “TRIP” after the aircraft call sign prefix (i.e. SPAR “TRIP” 65). The controller should respond using “TRIP” in the aircraft call sign. Use of the word “TRIP” in the aircraft call sign by the controller before use by the aircrew asks the aircrew if clear communications is possible. In this situation, the aircrew response should include the word “TRIP” only if clear communication is not possible. After an aircrew has advised ATC that clear communication is not possible, ATC will limit radio transmissions to the minimum essential ATC functions until advised otherwise by the aircrew.

7.10.5. To report “situation appears desperate; want armed intervention,” after code 7500 is used, change to code 7700. If unable to change transponder code to 7700, or when not under radar control, transmit “(aircraft call sign) transponder seven seven zero zero.” ATC acknowledges code 7700 by transmitting “(call sign) (facility name) now reading you on transponder seven seven zero zero.”

7.10.5.1. Before changing from code 7500 to code 7700, remain on 7500 for at least 3 minutes or until a confirmation of code 7500 is received from ATC, whichever is sooner.

7.10.5.2. Aircraft squawking 7700 after squawking 7500, which are not in radio contact with ATC, are considered by ATC to have an in-flight emergency (in addition to hijacking), and the appropriate emergency procedures are followed. Notification of authorities in this case includes information that the aircraft displayed the hijack code as well as the emergency code.

7.10.6. To report “situation still desperate, want armed intervention and aircraft immobilized”, leave flaps full down after landing, or select flaps full down while on the ground. To facilitate message distribution, transmit “(aircraft call sign) flaps are full down.”

7.10.7. To report “leave alone, do not intervene,” retract the flaps after landing. Pilots who retract flaps after squawking 7700 should return to code 7500 and remain on code 7500 for the next leg of the hijacked flight unless the situation changes. Transmit “(call sign) back on seven five zero zero” to emphasize the fact intervention is no longer desired.

7.11. Forced Penetration of Unfriendly Airspace. These procedures are designed to deter possible hostile action against the hijacked aircraft that has been forced to penetrate airspace of a nation unfriendly to the United States.

7.11.1. If instructions from the unfriendly nation are received either by radio contact or by air intercept before boundary crossing, comply with instructions received.

7.11.2. If no contact with unfriendly nation is made before approaching a boundary:

7.11.2.1. Maintain TAS not more than 400 knots.

- 7.11.2.2. Maintain an altitude between 10,000 and 25,000-feet if possible.
 - 7.11.2.3. Fly a direct course toward destination announced by the hijacker, if no course is specified.
 - 7.11.2.4. Transmit the international distress signal, MAYDAY, on any of the international distress frequencies (121.5 MHz, 243.0 MHz, or 2182 KHz) in an effort to establish communications.
 - 7.11.2.5. Set mode 3 code 7700 on transponder.
 - 7.11.2.6. If radio contact cannot be established, follow procedures set forth in FLIP.
- 7.11.3. Consider the presence of classified documents and equipment aboard the aircraft. When a landing in an unfriendly nation is imminent, attempt to dispose of or destroy the equipment or material.

7.12. Arming of Crewmembers. Arming requirements will be directed in the mission FRAG. Aircraft commanders may elect to arm crewmembers for any mission at their discretion. The flight mechanic will normally be the armed crewmember.

7.12.1. Issue. Before departing home station, obtain weapons and ammunition. Crewmembers will be armed IAW AFI 31-207, *Arming and Use of Force by Air Force Personnel* and USAFE publications. If an armed crewmember must leave the crew, transfer the weapon to another authorized crewmember using AF Form 1297, **Temporary Issue Receipt**.

7.12.2. Load and unload weapons at approved clearing barrels. If a clearing barrel is not available, move to a safe, clear area at least 50-feet from any aircraft, equipment, or personnel before unholstering or unslinging and clearing the weapon. To transfer loaded weapons to another crewmember, place the weapon on a flat surface. Do not use hand-to-hand transfer.

7.12.3. Wear weapons in a concealed holster at all times to prevent identifying armed crewmembers. Do not wear weapons off the flightline except to and from the armory and other facilities associated with aircrew activities, i.e. base operations, fleet service, cargo or passenger terminal, flightline cafeteria or snack bar, etc.

CAUTION:

Armed crewmembers leaving the immediate vicinity of the aircraft at foreign airfields is highly discouraged.

7.12.4. Crewmembers will be armed before preflight duties and until completion of all post flight duties for the portion of the mission that requires arming.

7.12.5. During crew rest, store weapons in the most secure facility available, normally a base armory. If a weapons storage facility is not available, secure firearms (with the safety on) and ammunition in the aircraft gun box.

7.13. Force Protection. Crews must be alert to possibility of terrorist activities at all times. 86 OG/CC will provide specific written guidance concerning force protection (due to the changing political environments, the FCB may prove the most useful format). The following considerations may help crewmembers avoid becoming victims of terrorism when operating in overseas locations:

7.13.1. Personal Conduct. Crews must realize their conduct can make them a target for individuals dissatisfied with US foreign involvement in their national affairs. Local foreign nationals may or may not condone a military presence - crew conduct will be watched and judged. Therefore, utilize the following:

7.13.1.1. Maintain good military bearing both on and off duty. Crews should strongly consider not using ranks or crew positions when addressing one another away from the immediate aircraft vicinity.

7.13.1.2. Avoid clothes that highlight the fact you are an American, i.e., cowboy hats, shirts with pro-American slogans, etc.

7.13.1.3. Do not wear clothing displaying profanity.

7.13.1.4. Know where "off-limits" areas are and avoid them.

7.13.1.5. Beware of personnel offering to take you on a "personal" sightseeing tour or involving you in games of chance.

7.13.1.6. When possible, always travel in groups of two or more.

7.13.1.7. Avoid discussion of politics and demonstrations for any cause.

7.13.2. Transportation security. Consider the following to minimize drawing attention to yourself as a potential target:

7.13.2.1. Avoid late night travel, isolated roads and dark alleys.

7.13.2.2. Travel with companions when possible.

7.13.2.3. Ride with seat belts buckled, doors locked, and windows closed.

7.13.2.4. Do not take actions that could lead to a confrontation.

7.13.2.5. Report any incidents to Embassy officials, local or security police and the OSI upon return to home station.

7.13.3. Personal Identification. Consider the following actions to avoid advertising the fact you are an American:

7.13.3.1. Don't discuss your military affiliation with strangers. Do not use rank or crew position when addressing another crewmember.

7.13.3.2. Avoid military style luggage such as B-4 bags & duffel bags with military logos, helmet bags, etc.

7.13.3.3. Consider placing your official passport and related documents such as military ID, flight orders, club card, dog tags, billeting receipts in your hand-carried luggage and not in your wallet or purse.

7.13.3.4. Wear conservative styled civilian clothing and maintain a low profile.

7.13.4. Hotel Security. When billeted in commercial hotels, crews need to be aware of the following:

7.13.4.1. If possible, obtain rooms between the second and sixth floors. These rooms are high enough to be less vulnerable to unauthorized entry from the outside and low enough to simplify evacuation if necessary.

- 7.13.4.2. Always lock interior locks when occupying rooms.
- 7.13.4.3. Always assume the room is monitored, avoid viewing/discussing classified data.
- 7.13.4.4. Avoid establishing a predictable routine i.e., vary eating times and locations.
- 7.13.4.5. Avoid traveling on foot--use a vehicle (hotel shuttle, commercial taxi, etc).
- 7.13.4.6. In high threat areas, stay off the streets (use hotel dining facilities if available).
- 7.13.4.7. Avoid leaving valuables in rooms. Consider storing valuables in a hotel safe or carrying them on your person.

Chapter 8

OPERATIONAL REPORTS AND FORMS

8.1. General. Applicable reports and forms are contained in this chapter.

8.2. AF Form 457, USAF Hazard Report. Use AFI 91-202, *The US Air Force Mishap Prevention Program*, and the following:

8.2.1. The Air Force hazard reporting system provides a means for Air Force personnel to alert supervisors and commanders to hazardous conditions requiring prompt corrective action.

8.2.2. Special Procedures for Hazard Reports Concerning Weather. Complete the front of an AF Form 457 and address it to the 86AW flying safety office. If a computer flight plan deficiency is involved, attach one copy of the AF Form 72, **Air Report (AIREP)**, if completed, and the CFP to the report. Send the report so that the parent unit receives it within 5 days.

8.3. AF Form 651, Hazardous Air Traffic Report (HATR). See AFI 91-202, Attachment 3, *Hazardous Air Traffic Report (HATR) Program*. The following text is repeated. (RSC HAF-SE (AR) 7602.

8.3.1. The Air Force HATR program provides a means for personnel to report all near midair collisions (NMAC) and alleged hazardous air traffic conditions. Use information in HATR reports only for mishap prevention. AFI 91-202 list reportable incidents.

8.3.2. Procedures: Make an airborne report of the hazardous condition to the nearest air traffic control agency (e.g. center, FSS, control tower, or aeronautical radio station), and give the following information as appropriate:

8.3.2.1. Identification or call sign.

8.3.2.2. Time and place (radial/DME of NAVAID, position relative to the airfield, incident, etc.

8.3.2.3. Altitude or flight level.

8.3.2.4. Description of the other aircraft or vehicle.

8.3.2.5. Include a verbal statement as soon as possible after occurrence that a written HATR report will be filed upon landing. **NOTE:** Air Traffic Control agencies (e.g., FAA, etc) must know if an official report is being filed.

8.3.2.6. File the HATR as soon as possible (within 24-hours) using any available means of communication. Normally, it should be filed at the Air Force base operations office at the landing airport. If this is impractical and if communications permit, notify the safety office of the Air Force base where the condition occurred, the safety office at the home base, or as prescribed by the overseas major command. In any case, provide the base or wing safety office with all available information needed to prepare AF Form 651, **Hazardous Air Traffic Report (HATR)**. Turn in a completed copy of AF Form 651 to the wing safety office.

8.3.3. Individuals submitting HATRs are granted immunity from disciplinary action provided:

8.3.3.1. Their violation was not deliberate.

8.3.3.2. They committed no criminal offense.

8.3.3.3. No mishap occurred.

8.3.3.4. They properly reported the incident using procedures above.

NOTE:

HATR reports are not privileged information and may be released outside the US Air Force.

8.4. AF Form 711, USAF Mishap Report. (Ref: AFI 91-204, *Investigating and Reporting US Air Force Mishaps*)

8.4.1. Reportable Mishaps. Notify the appropriate authorities of any mishap causing damage to the aircraft or injury to the crew or passengers. Also, any damage or injury to another organization's equipment or personnel resulting from the movements or actions of an USAFE aircraft or crew. Reportable mishaps include:

8.4.1.1. Physiological mishaps.

8.4.1.2. Engine flameout, failure, or required shutdown after engine start with intent for flight, regardless of damage. Incidents may be reported upon landing. **NOTE:** Intentional shutdowns for FCF or other non-emergency purposes are excluded; however, report failure to restart, using the criteria above.

8.4.1.3. Loss of thrust sufficient to preclude maintaining level flight at a safe altitude.

8.4.1.4. Engine case penetration by shrapnel from internal engine component failure.

8.4.1.5. Engine case rupture or burn-through, engine bay fire, or massive fuel leakage.

8.4.1.6. Unselected thrust reversal.

8.4.1.7. Flight control malfunction (including AFCS and trim systems) resulting in an unexpected, hazardous change of flight attitude, altitude, or heading. When making the AFTO 781A, **Maintenance Discrepancy and Work Document**, entry, include the flag words "reportable flight control malfunction."

8.4.1.8. Malfunction of landing gear when difficulty is experienced using emergency system or procedures.

8.4.1.9. In-Flight loss of all pitot-static instrument indications or all gyro-stabilized attitude or directional indications.

8.4.1.10. Human factors related situation, e.g. misinterpretation of instruments; crew overload, i.e. tactile, aural, and visual input to the crew at a rate too fast to permit reasonable decisions based on the data received; or too many actions required in too short a period of time; or confusion of controls such as would be caused by adjacent switches where the actuation of the wrong switch could create a dangerous situation. Anonymous reports are acceptable.

8.4.1.11. All cases of departure from intended takeoff or landing surface onto a surface not designed to normally support takeoff or landing loads.

8.4.1.12. All in-flight fires regardless of damage.

8.4.1.13. All bird strikes regardless of damage.

8.4.1.14. Any occurrence which does not meet the established criteria for a reportable mishap but, in the judgment of the reporting individual, needs to be emphasized in the interest of safety.

8.4.2. Procedures. Report mishaps as soon as possible to the following offices using the following precedence: USAFE Flying Safety Officer (FSO), any FSO, nearest C2 Center, base operations. In all cases, retain a copy of all relevant information, and turn it into a home station safety officer. Complete all appropriate areas of the AF Form 651 and provide as much detail as possible.

8.5. Reports of Violations/Unusual Events or Circumstances (RCS: HAF-XOO(AR) 7118, Operations Events and Incident Report. Report deviations, Unusual Events, or alleged violations in AFI 11-202V3 including alleged navigation errors (over-water position errors exceeding 24 NMs, border, and ATC alleged violations).

8.5.1. Use the following format and include factual circumstances and related details:

8.5.1.1. Investigation and analysis.

8.5.1.2. Findings and conclusions.

8.5.1.3. Recommendations.

8.5.1.4. Actions taken.

8.5.2. Attachments to include:

8.5.2.1. Notification of incident.

8.5.2.2. Crew orders.

8.5.2.3. Statement of crewmembers (if applicable).

8.5.2.4. Documenting evidence (logs, charts, etc).

8.5.3. In addition to the information listed, the historical flight plan will be turned in to the 86 OG/OGV.

8.5.4. Send the original investigation report within 45 days to USAFE/DOV.

8.5.5. The following OPREP-3 reporting procedures for all aircraft notified of navigational errors exceeding 24 NMs will be reported under AFI 10-206, *Operational Reporting* and MAJCOM Supplement.

8.5.5.1. On notification of a navigational position error, the aircraft commander (or agency receiving notification) will document the circumstances surrounding the incident (report content below) and ensure submission of an OPREP-3 report through C2 channels.

8.5.5.2. Report content:

8.5.5.2.1. Name and location of unit submitting report.

8.5.5.2.2. Mission identification number.

8.5.5.2.3. Reference to related OPREPs-3.

8.5.5.2.4. Type of event. (State "Navigation position error.")

8.5.5.2.5. Date, time (Zulu), and location (i.e. ARTCC area).

8.5.5.2.6. Description of facts and circumstances. Include aircraft type and tail number, unit (wing or squadron assignment of crew), home base, route of flight, point of alleged deviation, and miles off course.

8.5.6. Aircraft commanders must keep the USAFE AMOCC senior controller/director apprised of any unusual events or circumstances impacting their missions. Examples of reportable events include meaconing, jamming, intrusion, interception, engine loss, hostile fire, injury to passengers or crewmembers, etc. This list is not exhaustive. Some events may require USAFE to forward OPREP reports to higher headquarters.

8.6. Petroleum, Oil, and Lubricants (POL)—Aviation Fuels Documentation. This section describes procedures for the aviation fuel program (AVPOL) for all USAF aircraft. Procedures are established for correct documentation, processing of forms and invoices, program oversight, and personnel responsibilities. (Reference: AFI 23-202, *Buying Petroleum Products, and Other Supplies and Services Off-Station*, and AFMAN 23-110, Volume 2, Part 3.

8.6.1. Responsibilities. All aircrew and maintenance personnel will be familiar with the procedures and documentation requirements of this chapter.

8.6.2. Aircraft will be refueled or de-fueled at DoD locations unless DoD-owned fuel is not available; in which case, fuel may be procured from other sources using the following priority.

8.6.2.1. Defense Fuel Supply Center (DFSC) or Canadian into-plane contracts.

8.6.2.2. Foreign government Air Forces.

8.6.2.3. Open market purchase to include Shell International Trading Company (SITCO) agreement.

NOTE:

DoD FLIP en route supplements identify locations with into-plane contracts.

8.6.3. AVPOL Documentation Use and Procedures. (Ref: AFI 23-202).

8.6.3.1. AF Form 664, **Aircraft Fuels Documentation Log**. Used to log and store all AVPOL transaction documentation. Log all off-station transactions on front of AF Form 664 then insert the supporting documentation inside the envelope. Turn AF Form 664, with supporting documentation, in with mission folder to AFORMS.

8.6.3.2. AF Form 315, **United States Air Force AvFuels Invoice**. Used to purchase aviation fuel at non-DoD facilities. When completed, log and place inside the AF Form 664.

8.6.3.3. AF Form 15, **United States Air Force Invoice**. Use this form for procurement of items or services required at commercial locations where normal DoD support and supplies are not available. If the vendor will not accept the aircraft identaplate, use AF Form 15 to pay for ground fuels, oils, or services. Return the completed AF Form 15 to the aircraft's home station for payment. When completed, log and place inside AF Form 664.

8.6.3.3.1. If the vendor wants to be paid without submitting an invoice, the aircraft commander retains the original AF Form 315, **USAF AvFuels Invoice** to return to home station for accounting and finance processing. Provide two legible copies of the AF Form 315 to the

vendor. If the vendor wants to submit an invoice for payment, give the vendor the original AF Form 315 to attach to the invoice.

8.6.3.4. Purchases at Canadian into-plane locations will be documented using the local vendor's invoice. AF Form 15 or 315 **will not** be accomplished. Hand scribe the information from the aircraft identaplate to the vendor's invoice, and complete a separate sheet with the information listed on the Aviation Issues to DoD and Non-DoD, Aircraft Refueling Tender Sheet. Log and place a copy inside the AF Form 664.

8.6.3.5. Purchases at SITCO Agreement locations require presenting the aircraft identaplate. The invoice must include the date of transaction, grade of the product, quantity issued or de-fueled, unit of measure, and signature of the Air Force representative. If the vendor also requires completion of an AF Form 15 or 315 in addition to their invoice, annotate on the vendor's invoice "AF FORMS EXECUTED." Log and place the documentation inside the AF Form 664.

8.6.3.6. Purchases at non-contract commercial airfields are accomplished using the AF Form 15 or 315.

8.6.3.7. Purchases at foreign military airfields, including replacement-in-kind (RIK) locations, are accomplished using host country forms to record the purchase. Information from the aircraft identaplate should be hand scribed on the local form. Log and place a copy inside the AF Form 664.

8.6.3.8. Purchases at airfields that don't accept AF Forms, the identaplate, or the AIR Card may be made using cash payment method. The original receipt should be turned into finance at the end of the mission.

NOTE:

Aviation Into-Plane Reimbursement (AIR) Card. The AIRcard is a commercial credit card that allows aircrews to purchase aviation fuel, fuel-related supplies, and/or ground services at commercial airports where no DoD/Canadian into-plane contracts exist. Additional information is at 'www.kelly.af.mil/sfweb/aircard.htm'.

8.6.4. AF Form 1994, **Fuel Issue/De fuel Document**. Used for purchases at all US Air Force locations using a valid DD Form 1896, **Jet Fuel Identaplate**. Log and place inside AF Form 664.

8.6.5. AFTO Form 781H, **Aerospace Vehicle Flight Report and Maintenance Document**. Complete form according to T.O. 00-20-5 and AFI 11-401, Attachment 2. Maintenance will retain for 90 days after inter-fund billing to provide a secondary audit trail for fuels issue and flying hours.

8.6.6. DD Form 1896, **Jet Fuel Identaplate**, aircraft fuel and oil charge card.

8.6.7. DD Form 1898, **Av Fuels Into-Plane Sale Slip**, fuel transaction receipt used for purchases at other DoD locations, including DFSC into-plane contract locations. Log and place inside AF Form 664. If the contractor insists on completing their own invoice in addition to the DD Form 1898, the invoice must be annotated "DUPLICATE DD FORM 1898 ACCOMPLISHED."

8.6.8. Aircraft commanders will:

8.6.8.1. Verify that AF Forms 15, 315, 664, 1994, AFTO Form 781H, DD Form 1898, and all associated fuels receipts are completely filled out and placed inside the AF Form 664. (All USAF aircraft must contain an 8-digit tail number).

8.6.8.2. Ensure that the AF Form 664, with all refueling documentation, is turned in with the mission folder to AFORMS and the AFTO Form 781H are turned into maintenance upon mission termination.

8.6.8.3. Ensure that all AF Forms 664 information is phoned, faxed, or sent by message back to home station if aircraft is to be off station past the last day of the month.

8.7. AMC Form 54, Aircraft Commanders Report on Services/Facilities. This is an instrument for aircrews to report that services rendered or conditions encountered were unsatisfactory or detrimental to efficient air mobility operations; services rendered or procedures used are worthy of adoption for all MAJCOM organizations; or a performance rendered by a person (or persons) was commendable and deserves recognition. Attempt to solve problems by contacting appropriate supervisors including the senior commander if conditions and situations warrant. If further action is deemed necessary or the problem requires increased visibility, submit this form.

8.7.1. Submit the form to the originator's squadron commander. Time permitting, leave an information copy with the CP or senior AMC representative on station. Forward an information copy to HQ AMC/DOV according to AMCI 11-208, *Tanker/Airlift Operations*.

8.8. AMC Form 43, AMC Transient Aircrew Facilities Report. Any crewmember may submit this form. The report may be submitted whether or not an unsatisfactory item is included in the aircraft commander's trip report. Complete the AMC Form 43 and mail to the address on form's reverse.

8.9. AMC Form 196, Aircraft Commander's Report on Crewmember. The aircraft commander may prepare an AMC Form 196 on each crewmember whose performance was outstanding, below average, or unsatisfactory during a mission. Send the report to the commander of the unit to which the crewmember is assigned or attached for flying. AMC Form 196 should fully explain outstanding, below average, and unsatisfactory performance.

8.10. AMC Form 423, MIJI (Meaconing, Intrusion, Jamming, Interference) Incident Report Worksheet. The MIJI reporting system is a program to identify, analyze, and disseminate information concerning MIJI incidents. Comply with Air Force headquarters direction by reporting all incidents through the system. Complete the MIJI Incident Report Worksheet, and turn in to base operations upon landing.

Chapter 9

TRAINING POLICY

9.1. Qualification Training . Initial qualification, re-qualification, or upgrade training for pilots will not be conducted on missions with passengers onboard. Mission qualification training and evaluations may be conducted on missions with passengers onboard only if the individual in training is qualified (with a valid AF Form 8, **Certificate of Aircrew Qualification**).

9.1.1. **Touch-and-go landings with passengers or cargo are prohibited.**

9.1.2. Maintenance and civilian employees under direct contract to the DoD, engaged in official direct mission support activities (i.e. maintenance evaluations and inspections), are considered mission essential and may be onboard when touch-and-go landings are performed.

9.2. Simulated Emergency Flight Procedures.

9.2.1. Simulated emergency flight procedures will be conducted according to AFI 11-202V3, the USAFE Supplement, AFI 11-2C-20V1 and this AFI. Use a realistic approach and do not compound emergencies.

9.2.2. Passengers are prohibited on training and evaluation or currency flights when simulated emergencies are practiced.

9.2.3. Conduct simulated emergencies only during training, evaluation and currency flights when an instructor or flight examiner pilot is occupying one of the pilot seats. Instructor or flight examiner pilot candidates who occupy a pilot seat and are under the direct supervision of a flight examiner pilot not in a pilot seat may conduct simulated emergencies during initial and requalification upgrade evaluations.

9.2.4. Simulated engine out landings may be performed IAW paragraph **9.4.** of this AFI.

9.2.5. When flying a nonstandard pattern requiring special sequencing in conjunction with a simulated emergency, notify ATC.

9.2.6. Use radar flight following to the maximum possible, consistent with training objectives.

9.2.7. CAT II Training. Flight and evaluation may be conducted at any ILS facility where signal output is accurate and stable enough to achieve the desired training. The following are weather and runway requirements:

9.2.7.1. Actual weather no lower than 200-foot ceiling and ½-mile visibility (RVR 24); day or night.

9.2.7.2. Crosswind limitation 15 knots.

9.2.7.3. Runway length for touch-and-go landings is at least computed landing distance plus 2000-feet.

9.2.7.4. When CAT II decision height (DH) not published, DH will be based on HAT of 100-feet.

9.3. Touch and Go Landing Limitations.

9.3.1. Touch and go landings will only be accomplished under the direct supervision of an IP.

9.3.2. Current and qualified instructor pilots are authorized to conduct/supervise touch-and-go landings under the following conditions:

- 9.3.2.1. IAW flight manual restrictions and procedures.
- 9.3.2.2. Runway length and width meet Paragraph 5.15.3. restrictions.
- 9.3.2.3. Reported ceiling or visibility values are at least 300-3/4 (RVR 40).
- 9.3.2.4. RCR measured 12 or higher. Crosswind limit is 21 knots for wet runways.
- 9.3.2.5. Do not accomplish touch-and-go landings on slush covered runways.
- 9.3.2.6. Any pilot from either seat provided that an instructor pilot, instructor pilot candidate (on initial or requalification instructor evaluation), or flight examiner pilot is in the other seat.

9.3.3. Supervision of touch-and-go landings. Review/Brief the following as a minimum:

- 9.3.3.1. IAW flight manual procedures.
- 9.3.3.2. The importance of smooth application of power to the touch-and-go flex EPR setting while maintaining symmetric thrust as the throttles are advanced.
- 9.3.3.3. Engine failure, including recognition and corrective action.
- 9.3.3.4. Proper resetting of flaps and trim.

9.3.4. To provide additional training flexibility, crews may perform multiple approaches, and if the aircraft commander is an instructor, touch and go landings on operational airlift missions provided the following requirements are met:

- 9.3.4.1. Normal touch and go limitations apply.
- 9.3.4.2. All transition training will be accomplished during the first 12-hours of the FDP.
- 9.3.4.3. As part of pre-mission planning, aircraft commanders will:
 - 9.3.4.3.1. Contact wing current operations and obtain training mission number(s) for use at each en route location(s) where training events are planned.
 - 9.3.4.3.2. Coordinate with and receive approval from the airfield(s) where training is to be accomplished.
 - 9.3.4.3.3. Coordinate with the 76 AS/DO to ensure adequate ground time is available at planned training locations to allow for planned training events, clearing customs, required crew rest, etc. Once complete, wing current operations will coordinate with the USAFE AMOCC.
- 9.3.4.4. Operational missions full stopping at an enroute location may not takeoff again to conduct training without approval from the USAFE AMOCC and 86 OG/CC. The additional flight is an off-station trainer (approval required) and is not normally planned for by the USAFE AMOCC when approving training on the mission directive.
- 9.3.4.5. Upon initial arrival at the training location, close out the current line on the AFTO Form 781 and log the training time on the next line using the appropriate training mission symbol and number.

9.4. Engine Out Limitations.

- 9.4.1. Simulated engine failure is not authorized at less than engine-out minimum control speed (IAW the flight manual).
- 9.4.2. Simulated engine failure is not authorized when actual emergency condition exists.
- 9.4.3. Simulated engine failure is not authorized during no-flap approach and landing.
- 9.4.4. Landings may be performed with one throttle in idle.
- 9.4.5. Simulated engine failure will not be initiated below 500-foot AGL.

9.5. Training Maneuver Limitations. Adhere to the restrictions in **Table 9.1.** on all training flights and FCFs.

Table 9.1. Training Maneuver Restrictions.

Maneuver	Altitude Restriction
Actual engine shutdown - Perform only for FCF (Actual or Training)	5,000-foot AGL (min)
Any simulated emergency	
On takeoff	Initiate above 500-foot AGL
On approach	Initiate above 500-foot AGL
Low approaches with personnel and equipment on runway	Initiate at or above 500-foot AGL
Instrument missed approach	Initiate at or above minimums for the approach flown
Simulated single engine missed approach or go around	Initiate at or above 300-foot AGL
Planned VFR go-arounds with simulated emergencies other than engine-out	Initiate at or above 100-foot AGL

9.6. Operating Limitations.

- 9.6.1. Policy: Unless specifically authorized elsewhere in this section, do not practice emergency procedures that degrade aircraft performance or flight control capabilities (in-flight). In an actual emergency, terminate all training and flight maneuvers practice. Training should be resumed only when the pilot in command determines it is safe.
- 9.6.2. Planned go-arounds and missed approaches will be initiated IAW **Table 9.1.**
- 9.6.3. Do not perform simulated engine-out approaches and landings at night or in IMC conditions.
- 9.6.4. Other simulated emergency procedures will be limited to non-critical phases of flight and will be kept to a minimum when IMC or at night.
- 9.6.5. An aircraft will normally be scheduled for 2-hours minimum ground time between consecutive sorties.

9.6.6. Flight plans to and from European airports for approaches and touch-and-go landings may be filed on one flight plan.

9.6.7. Seat changes will be conducted above 1000' AGL and not during flap and/or gear extension or retraction and not if only 2 pilots are on board the aircraft.

9.7. Not Used.

9.8. Prohibited In-Flight Maneuvers. Practice the following maneuvers in the simulator only. Maneuvers required for functional check flights (FCF) or FCF training are authorized in flight.

- 9.8.1. Simulated engine-out takeoffs.
- 9.8.2. Full stalls.
- 9.8.3. Dutch rolls.
- 9.8.4. Jammed stabilizer approach and landing.
- 9.8.5. Split flap landings.
- 9.8.6. Landing with anti-skid off.
- 9.8.7. Landing with inoperative hydraulic system.
- 9.8.8. Aborted takeoffs.
- 9.8.9. Unusual attitudes.
- 9.8.10. Emergency descents.
- 9.8.11. Runaway pitch or roll trim, yaw demonstrations.
- 9.8.12. Emergency brake landing.
- 9.8.13. Simulated dual engine failure.
- 9.8.14. Actual engine shutdown.

9.9. Instructor/Evaluator Pilot Briefing. Before all training/evaluation missions, instructors/flight examiners will brief their crews on the requirements and objectives for each student or examinee using 86 OG/OGV approved briefing guides. They will also brief the planned training areas and seat changes if applicable. Instructor pilots will accomplish at least 1-hour of ground training before or immediately after a local proficiency sortie.

9.10. Debriefing. Review, evaluate and document overall training performed. Each student or aircrew member should understand thoroughly what training has been accomplished and overall performance.

9.11. Not Used.

9.12. Simulated Instrument Flight. Artificial vision restricting devices are not authorized for any phase of flight. Simulated instrument flight may be flown and logged without the use of a vision-restricting device.

Chapter 10

LOCAL OPERATING PROCEDURES

10.1. General: Use this chapter to publish local or unique unit operating procedures as a supplement to this chapter.

Chapter 11

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11.1. General. This chapter is not used for C-20A operations (Navigation Procedures).

Chapter 12

FLIGHT MECHANIC (FM) PROCEDURES

12.1. General. This chapter outlines additional procedures for FMs (Flight Engineer (FE) when appropriate) not in the flight manual or other T.O.s.

12.2. Responsibilities. FM is responsible for the condition of the aircraft and:

- 12.2.1. Accomplishes the Dash 1 preflight and through-flight inspections.
- 12.2.2. Coordinates cockpit checklist procedures when directed by the pilot.
- 12.2.3. Calculates TOLD and weight and balance for AC review.
- 12.2.4. Keeps the AC informed at all times of changes in aircraft status.
- 12.2.5. Acts as enlisted aircrew coordinator.
- 12.2.6. Supervises or performs aircraft ground handling, servicing, and maintenance at en route stations (according to CLS agreement).

12.3. Authority to Clear Red X. When authorized by the CLS agreement, FMs are authorized to clear red X write-ups on all systems of the aircraft on which they are qualified.

12.4. Refueling and Defueling. All qualified FMs are authorized (IAW the CLS agreement) to refuel and defuel their aircraft.

12.5. Concurrent Servicing Operations. Concurrent servicing is authorized according to T.O. 00-25-172. FMs must be qualified as chief servicing supervisor (CSS) IAW USAFEI 21-101, *Maintenance Management Policy*, or theater directives.

12.6. Engine Run-up Certification. All FMs should receive instruction from qualified flight examiner/instructor pilot or certified FM on engine run procedures IAW T.O. 1C-20A-1, AFI 11-218, *Aircraft Operation and Movement on the Ground*, MAJCOM Supplement, and local directives at the discretion of the unit commander. Training will be documented on the appropriate Aircrew Qualification Training Record. Initial and recurring engine-run certification will be documented on an AF Form 8 as a ground phase item according to AFI 11-2C-20V2.

12.7. Taxi Authorization. Selected FMs, when qualified in accordance with the basic instruction and upon career field conversion to flight engineer (FE), may taxi the C-20A aircraft. FMs assigned to operations will accomplish taxi certification during the qualification eligibility period. Document this on the AF Form 8 as a ground phase item along with the evaluation and comply with AFI 11-2C-20V2.

12.8. Mission Flight Planning and Weight and Balance Documentation.

- 12.8.1. Flight Planning. FMs will review the mission itinerary and each airfield transited. They will inform the aircraft commander of any potential airfield limitations that could adversely affect mission accomplishment (i.e. fuel limited if runway is wet, weight limited based on climb gradients, etc.)

12.8.2. Weight and Balance. FMs will compute and document initial weight and balance on the DD Form 365-4, **Weight and Balance Clearance Form F**. The DD Form 365-4 will be recomputed if the takeoff weight changes by more than 500 lbs. In-flight, crew, passenger and equipment moments will be computed to ensure CG limits will not be exceeded. Changes in CG will be briefed to the aircraft commander.

12.8.3. Canned DD Form 365-4s are authorized for all aircraft configurations. Authorized computer based Weight and Balance programs may be used to calculate DD Form 365-4s for alternate configurations or when the weight and balance is in question.

Chapter 13

FLIGHT ATTENDANT PROCEDURES

13.1. General. This chapter outlines procedures for FAs not in the aircraft flight manual or other T.O.s. (Reference detailed descriptions in AFI 11-2-C-20V2).

13.2. Responsibilities. Primary responsibilities of the FA are:

- 13.2.1. Direct and control passengers under emergency conditions.
- 13.2.2. Instruct passengers in using emergency equipment when required.
- 13.2.3. Act as the cabin representative of the AC.
- 13.2.4. Provide cabin service.

13.3. Pre-mission Duties.

- 13.3.1. Contact the Aircraft Commander for draft itinerary times and any information already received concerning cabin service requirements. Anticipate meal requirements and draft menu items that could be provided as suggestions.
- 13.3.2. Call or visit the mission contact officer/POC to determine requirements.

13.4. Preflight Duties.

- 13.4.1. Perform applicable preflight checklist. Check to see that printed passenger briefing cards or information cards are properly distributed.
- 13.4.2. Prepare meals as required.
- 13.4.3. Prepare passenger manifest as appropriate. Turn in required border clearance forms.
- 13.4.4. Coordinate baggage loading. If loading space-available passengers at a non-United States military facility, perform anti-hijacking inspections as directed by the AC.
 - 13.4.4.1. Inspect baggage in an area well away from the aircraft.
 - 13.4.4.2. Load baggage to preclude in-flight passenger access (except for carry-on baggage).
 - 13.4.4.3. Inspect carry-on baggage before boarding passengers.
- 13.4.5. Coordinate passenger boarding and deplane the manifest to a responsible ground agency.
- 13.4.6. Before takeoff, brief passengers as directed by the AC and other AFI/local directives.

13.5. Passenger Handling. Observe these general rules:

- 13.5.1. Coordinate with the AC before answering questions about the mission.
- 13.5.2. Do not unduly alarm passengers by relaying details of abnormal conditions not readily discernible by passengers.
- 13.5.3. Keep the AC informed of all passenger problems, unusual requests, etc.

13.6. Border Clearance . Public Health, Customs, Immigration, and Agriculture require certain forms for border clearance. The FA is the custodian for this type of forms. Ensure required forms are aboard the aircraft before takeoff. Distribute forms to passengers and crew for completion before landing. Deliver these forms to the proper persons at en route and terminating stations. See AFPD 24-4, *Customs and Border Clearance*.

13.7. En Route and Post-flight Duties.

- 13.7.1. Monitor the passenger cabin.
- 13.7.2. Assure passenger safety and comfort.
- 13.7.3. Ensure passengers follow restrictions (i.e. the use of electronic devices, use of seat belts, etc.)
- 13.7.4. Prepare and serve meals, snacks, and beverages as required.
- 13.7.5. Distribute magazines, blankets, pillows, and other comfort items as needed.
- 13.7.6. Be attentive to passenger needs.
- 13.7.7. Prior to arrival, complete border clearance forms as required.
- 13.7.8. Assist passenger deplaning.
- 13.7.9. Unload baggage and assist in transfer to passenger transport.
- 13.7.10. Inspect passenger cabin for personal items. If passenger baggage or personal items are inadvertently left behind, inform the AC who will immediately take positive action to have the item delivered to the passenger.
- 13.7.11. Clean passenger cabin, lavatories, and galley area. Vacuum carpets, if required.
- 13.7.12. Arrange or procure food and beverages required for subsequent mission legs.

13.8. AF Form 4084, Mission Planning Worksheet.

- 13.8.1. Theater-approved form should be designed to assist the FA in organizing passenger service requirements. The reverse of the form should be a checklist to help inventory mission supplies.
- 13.8.2. Record details received from the contact officer on the front of the form. Use the reverse as a pre-mission or preflight check-off list.

13.9. AF Form 4085, Mission Expense Record.

- 13.9.1. Use this form to record all expenses related to passenger services. Units may develop local procedures to complete the form.
- 13.9.2. Complete this form in four copies. Turn in the original and third copy to the fund custodian when the account is settled. Give the on-board contact the second copy. Turn in the fourth copy to the FA NCOIC.
 - 13.9.2.1. Ensure the on-board escort officer understands all entries.
 - 13.9.2.2. The AC and first FA must sign. If an escort officer is not aboard, indicate in the applicable signature block “not on board.”
 - 13.9.2.3. All items in the “billing data” block must be completed unless a cash settlement is made.

13.9.2.4. If fund money is used, attach receipts for all expenditures to fund accountant's copy of AF Form 4085.

EXCEPTION: If a cash settlement is made, give all receipts to the on-board escort officer.

13.9.2.4.1. If unable to get a receipt from a vendor, prepare and itemized list of purchases. Sign and date this list.

13.9.2.4.2. Total receipts must equal the amount shown as "total passenger expense" less the cost of liquor miniatures. No purchase for personal use, crew meals, or other missions may appear on the passenger AF Form 4085. Obtain separate receipts or subtract applicable items. Passenger AF Form 4085 has a 5 percent surcharge added on bills totaling over \$50.

13.9.3. Attach a copy of the passenger manifest indicating passengers on board for each mission leg to the AF Form 4084, for all accounts to be billed.

Chapter 14

COMMUNICATION SYSTEMS OPERATOR (CSO) PROCEDURES

14.1. General. The CSO is the focal point for the DV and passengers communications. They may be required to have access to extremely sensitive material and therefore should have a TS/SCI security clearance. This chapter outlines CSO procedures not covered elsewhere. (Reference detailed descriptions in AFI 11-2-C-20V2).

14.2. Responsibilities. The CSO is responsible for:

14.2.1. Inspecting, operating, and maintaining all communications equipment aboard the aircraft while on a mission.

14.2.2. Ensure all “mission-required” communications resources are available.

14.2.3. Monitoring and safeguarding all classified materials. Only CSOs are authorized access to the aircraft safe.

14.2.4. Distributing message traffic aboard the aircraft. CSOs will not courier classified message traffic received during ground operations. If messages are received when the addressee is away from the aircraft, notify the addressee or representative when message is or will be available for pickup.

14.3. Pre-mission Procedures.

14.3.1. Coordinate with the user’s communications agency to determine mission communication requirements.

14.3.2. Determine crypto kit requirements (including communications codes and authenticators).

14.3.3. Notify the USAFE AMOCC of all special communication systems support requirements. They will coordinate availability with applicable agencies. Include the Andrews AFB aeronautical station as an addressee on mission itinerary messages when special communications support is required. If the user has already coordinated required support, say so in the message.

14.4. Preflight Procedures. See flight manual.

14.5. In-flight Procedures.

14.5.1. Ensure primary and secondary HF voice circuits are available:

14.5.1.1. Maintain continuous phone patch capability.

14.5.1.2. Transmit departure and arrival reports and other command and control communications.

14.5.1.3. Coordinate with the AC for weather updates, command and control/maintenance issues and relay DV messages as required.

14.5.2. Arrange passenger phone patch service.

14.5.3. Maintain radio log for all missions:

14.5.3.1. Initiate a log for each mission leg.

14.5.3.2. If it is operationally impossible to maintain a complete log, document all notifications of early or late arrivals, unusual occurrences, and other items that you feel could require future reference.

14.6. Post-flight Procedures.

14.6.1. After passengers have deplaned, inspect passenger compartments for classified material.

14.6.2. Secure all classified materials and equipment.

14.7. Post-mission Procedures. Turn in crypto kits and debrief applicable agencies.

Chapter 15

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15.1. General. This chapter is not used for C-20A operations.

Chapter 16**INTENTIONALLY LEFT BLANK**

16.1. General. This chapter is not used for C-20A operations.

Chapter 17

EMPLOYMENT TACTICS

NOTE: Users should be aware that written additions to portion of, or any part of this chapter and the information contained within may elevate this instruction to a higher security classification.

17.1. General. This chapter contains provisions for employment/tactics training program. **Do not perform aerial maneuvers or requirements of this chapter without HQ USAFE/DO written approval.** This chapter is intended to provide guidance and standardization among airlift assets. Unit detail approved maneuvers or requirements in [Chapter 10](#).

17.1.1. The unit may develop a tactics ground training program to meet contingency and wartime tasking. Tactics and intelligence staff should join forces in this area to ensure success. Using a building block approach, the ground tactical training program forms the base of the unit's tactics program.

17.2. Responsibilities. The tactics ground training program will be a coordinated effort between the unit's tactics program manager (TPM), Wing Tactics, DOT, DOV, and DOX (or their equivalent) in order to ensure continuity and the unit's specific mission tasking is addressed. The program is the responsibility of the squadron commander and is run by the unit TPM.

17.2.1. Unit Tactics Program Manager. Responsible for the development, maintenance, and currency of the instructional materials used in the tactical training of crews. They are also responsible to find motivated, informed, and credible instructors to administer these materials. The program manager ensures the tactics training syllabus is comprehensive and covers all the aforementioned topics. More importantly, it is their responsibility to infuse tactics throughout the unit's operations, through classes, and flight profiles and other proactive aircrew members with tactics mission planning and initiatives.

17.2.2. Threat reference library/tactics read file/tactics newsletter. The unit TPM, with IN assistance, is responsible for developing procedures for timely dissemination of tactical and intelligence information to unit aircrew members.

17.2.2.1. Tactics Reference Library should be maintained by the unit tactics officer. This library provides study material at the unit level.

17.2.2.2. A by-subject Tactics Guide should also be developed and maintained by Wing Tactics and updated as materials are received.

17.2.2.3. The Tactics Read File should contain classified materials of timely interest to the aircrews. Read file may include messages, magazine articles, section out of MCM 3-1 series, Tactical Analysis Bulletins, etc.

17.3. Combat Entry and Exit Checklist. Use the combat entry and exit checklists at [Attachment 2](#) on training and operational missions into simulated or actual low-threat environments. The checklist may be reproduced and inserted in hand held checklist.

17.4. Tactics Flight Training.

17.4.1. Scope. The tactics flight training program is designed to provide C-20A crewmembers with the training necessary to confidently and successfully survive the wartime threat environment without

endangering aircrews or aircraft in peacetime. This volume attempts to point those maneuvers out; **however, do not attempt any maneuver that is not specifically mentioned in this publication without HQ USAFE/DO written approval.**

17.4.2. Objectives. Flight training is the final phase of the tactics program. Its goal is to provide actual application of the tactics training concepts. Accomplish all flight maneuvers with strict adherence to aircraft limitations as defined in T.O. 1C-20A-1 and this volume. The flight phase also involves a “walk before you run” philosophy.

17.4.3. Tactical Maneuvers. The maneuvers described below are basic tactical maneuvers. Do not practice maneuvers other than the VFR Overhead without USAFE/DO written approval.

17.4.3.1. **VFR Overhead Approach**(see [Figure 17.1.](#)).

17.4.3.1.1. Limitations: Maximum bank angle 30°, Minimum weather VFR (maintain VMC), Altitude 1500 AGL (minimum 1000 AGL), and maximum speed 250 KIAS.

17.4.3.1.2. Procedures:

17.4.3.1.2.1. Enter initial (3NM minimum) at overhead pattern altitude (1500 ft AGL min) and 250 KIAS. Report initial on tower frequency.

17.4.3.1.2.2. Break at approach end or as coordinated with tower--adjust power as required and pitchout using 30° bank.

17.4.3.1.2.3. Extend landing gear and lower flaps, rollout out on downwind.

17.4.3.1.2.4. Maintain overhead pattern altitude until starting final turn.

17.4.3.1.2.5. One mile past approach end--initiate final turn (30° bank max).

17.4.3.1.2.6. Rollout on final not less than 300 ft AGL and 1 NM from threshold.

17.4.3.1.2.7. Perform normal landing.

17.4.3.2. **Random Steep Approach.** (see [Figure 17.2.](#)).

17.4.3.2.1. Limitations:

17.4.3.2.1.1. Plan the maneuver not to exceed 30 degrees bank (if greater bank angles are planned, do not exceed 45° bank, and compute stall speed for weight, configurations, and bank angle to be flown and fly no slower than 1.3 times that stall speed).

17.4.3.2.1.2. Minimum Weather VMC.

17.4.3.2.1.3. Maximum Speed 250 KIAS.

17.4.3.2.2. Procedures:

17.4.3.2.2.1. From any planned direction, fly towards airfield at 5000ft AGL and 250KIAS.

17.4.3.2.2.2. Four miles before arriving overhead, begin slowing to 200KIAS, flaps 10× below 250 KIAS, flaps 20× below 220 KIAS.

17.4.3.2.2.3. Overhead field, throttles idle, speedbrake retracted, lower gear, deploy full flaps at 170 KIAS maximum, begin spiraling descent, complete before landing checklist. (Plan to lose approximately. 1000-ft for every 90 degrees of turn)

17.4.3.2.2.4. Continue spiraling descent, throttles as required, 170 KIAS maximum, Vref + 10 minimum.

17.4.3.2.2.5. Plan spirals to arrive at a normal glidepath picture at 1/2 mile final to the landing runway, approximately 150-ftAGL.

17.4.3.2.2.6. Transition to normal visual approach and landing procedures.

17.4.3.3. **Curvilinear Approach.** (see [Figure 17.3](#)). A curvilinear approach is a curving visual approach flown from any position other than a normal straight-in or downwind. Altitude, configuration and sequence of events will vary. However, in all cases, plan descent and flight path to arrive at a 1/2 mile final on a normal glidepath (approx. 150ft AGL) with the aircraft configured for landing and the before landing checklist completed.

17.4.3.4. **Spiral-Up Departure.** ([Figure 17.4](#)).

17.4.3.4.1. Limitations:

17.4.3.4.1.1. Maximum Bank Angle 30 degrees.

17.4.3.4.1.2. Minimum Weather VMC.

17.4.3.4.1.3. If the threat avoidance altitude not yet reached after 5 minutes, reduce thrust to maximum continuous power setting.

17.4.3.4.2. Procedures:

17.4.3.4.2.1. Set full power before brake release and follow normal takeoff procedures through rotation and liftoff.

17.4.3.4.2.2. Retract gear, turn thrust reverser control switches off, climb out at V2 + 20, 20 degrees pitch maximum, until above threat. Do not exceed 30 degrees of bank while maneuvering.

17.4.3.4.2.3. Random Steep. Passing 400-feet, a turn may be initiated towards planned escape route.

17.4.3.4.2.4. Spiral-Up. Begin spiral climb when clear of obstacles. At 5000 AGL, roll out of turn.

17.4.3.4.2.5. When above threat altitude, lower pitch attitude slightly, accelerate to V2 + 30 KIAS (V2 + 40 if maneuvering), and then retract flaps.

17.4.3.4.2.6. Resume normal climb schedule and complete after takeoff checklist.

17.4.4. Coordination with Air Traffic Control (ATC). In all cases, units should coordinate these procedures with local ATC at any location where these maneuvers will be flown. Do not fly these procedures at uncontrolled fields unless called for in actual operations.

17.5. Exercises.

17.5.1. Scope. Exercises provide realistic combat-scenario training. This training is representative of the unit mission tasking. Unit planner ensures exercises are planned and flown to maximize training objectives.

17.5.2. Objectives. Tactics training will be built into each exercise during the planning stage. Training objectives include but are not limited to, tactical deception, threat advisories, and defensive tactics. Consider the following elements during exercise planing:

17.5.2.1. Utilize warning, alerting, deployment and execution orders.

17.5.2.2. Theater ATO's should be sent secure by STU III and FAX at least one day during the exercise.

Figure 17.1. VFR Overhead.

NOTE: Airspeeds, altitudes, and distances are approximate and may be adjusted to fit the tactical situation.

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|--|
| <p>1. Initial</p> <ul style="list-style-type: none"> - 3NM Minimum - Overhead Pattern Altitude, (1,500 ft AGL Minimum) - 250 KIAS Maximum |
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|--|
| <p>2. Break</p> <ul style="list-style-type: none"> - Break At Approach End or As Instructed By Tower - 45° Bank Maximum - Throttles Idle - Level Turn |
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|--|
| <p>2. Break(Continued)</p> <ul style="list-style-type: none"> - Below 200 KIAS - Flaps 20° and Gear Down |
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- | |
|--|
| <p>3. Downwind</p> <ul style="list-style-type: none"> - Before Landing Checklist - 1500 AGL Minimum - Flaps Down at Perch - Clear For Traffic |
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- | |
|--|
| <p>4. Final Turn</p> <ul style="list-style-type: none"> - Extend Base As Necessary - 30° Maximum Bank - Roll Out on Final NLT 300 ft AGL - Roll Out on Final NLT 1 NM |
|--|

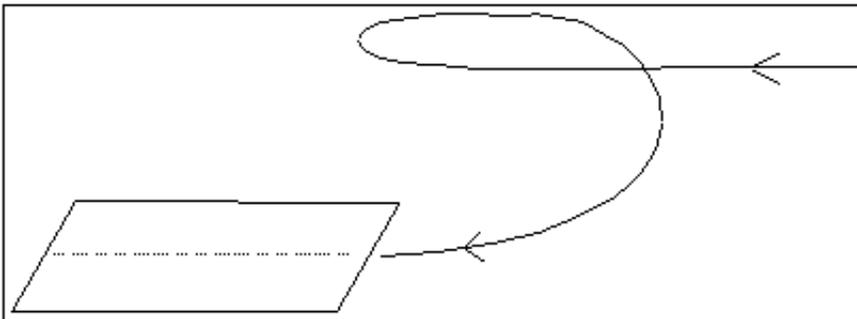
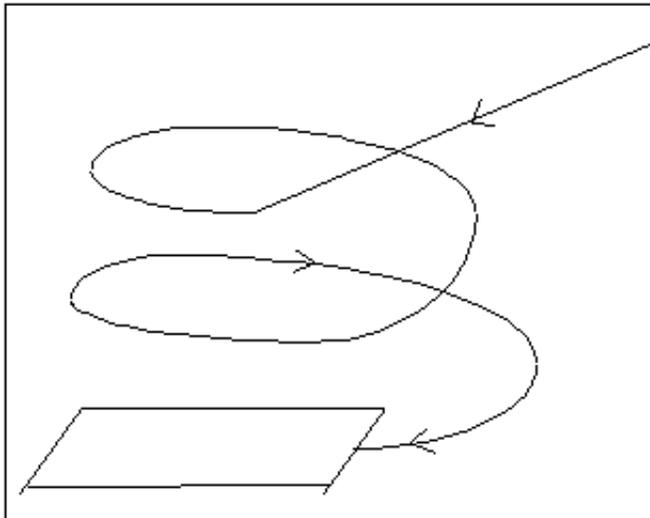


Figure 17.2. Random Steep Approach.

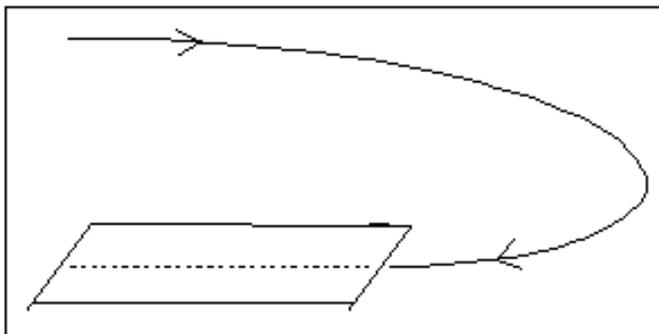
NOTE: Altitudes and distances are approximate and may be adjusted to fit the tactical situation. Plan the maneuver not to exceed 30° bank (if greater bank angles are planned, do not exceed 45° bank, and compute stall speed for weight, configurations, and bank angle to be flown and fly no slower than 1.3 times that stall speed)

**Procedures**

- From any direction, fly towards airfield at 5000ft AGL, 250KIAS.
- Four miles prior to arriving overhead, begin slowing to 200KIAS.
- Two miles prior and at 200KIAS or slower, configure with flaps 20°.
- Overhead field, 170KIAS max, $V_{ref} + 10$ min (or as computed for max planned bank angle), lower gear, flaps landing, begin spiraling descent, complete before landing checklist. (Plan to lose approx. 1000ft for every 90° of turn)
- Plan spirals to arrive at a normal glidepath picture at 1/2 mile final to the landing runway, approx. 150ft AGL.
- Transition to normal visual approach and landing.

Figure 17.3. Curvilinear Approach.

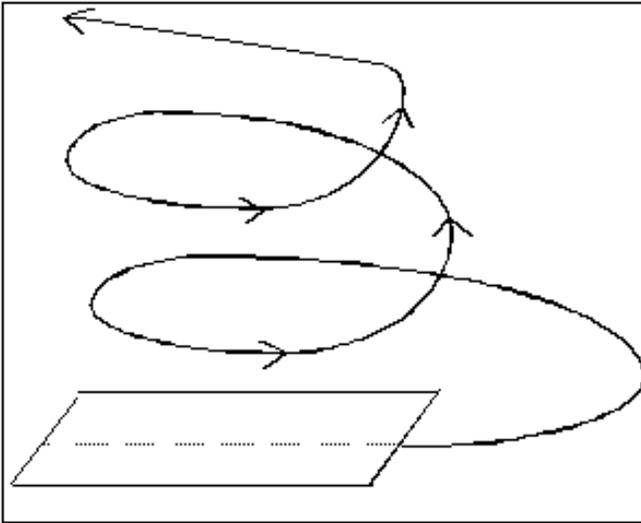
NOTE: Airspeeds, altitudes, and distances are approximate and may be adjusted to fit the tactical situation.

**Procedures**

- From Random Position, Altitude, Distance
- Initiate Descending, Turning Track
- 30° Maximum Bank
- Configure Normally
- Roll Out on Final NLT 150 AGL
- Roll Out on Final NLT 1/2 NM

Figure 17.4. Spiral-Up Departure.

NOTE: Airspeeds, altitudes, and distances are approximate and may be adjusted to fit the tactical situation.

**Procedures**

- Set full power prior to brake release and follow normal takeoff procedures through rotation and liftoff.
- After Rotation, Climb Out at $V_2 + 20$ Minimum, 20° Pitch Maximum
- Clear of Obstacles, Begin Spiral Climb
- 30° Bank Maximum
- Passing 5000 AGL (or Clear of Threat) roll out of turn
- Accelerate to $V_2 + 30$, Retract Flaps (maintain $V_2 + 40$ if maneuvering during flap retraction)
- Resume Normal Climb

Chapter 18

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18.1. General. This chapter is not used for C-20A operations (Aircraft Formation).

Chapter 19**INTENTIONALLY LEFT BLANK**

19.1. General. This chapter is not used for C-20A operations (Airdrop).

Chapter 20

AEROMEDICAL EVACUATION (AE)

Section 20A—General Information

20.1. Mission.

20.1.1. The primary function of the C-20A aircraft for AE is opportune transport of ill or injured DoD members and their dependents requiring medical support. These AE missions may be directed at any time. The C-20A aircraft will be used with the concurrence of the appropriate medical validating authority.

20.1.2. AE personnel will utilize the procedures in applicable AFI 11-2MDS-Specific Volume 3 and the appropriate AFI 41-series instructions.

20.2. Not Used.

20.3. Waivers and Revisions.

20.3.1. Waivers. Use **Chapter 4** waiver protocol for AE related questions or waivers.

20.3.2. Revisions. Use **Chapter 1** protocol for improvement recommendations.

20.4. Aeromedical Evacuation Forms. AE personnel will utilize forms as specified in the appropriate AFI 11-2MDS-Specific Volume 3 and/or appropriate AFI 41-series instructions.

Section 20B—Aeromedical Evacuation Command and Control

20.5. Operational Control and Reporting of Aeromedical Evacuation Forces:

20.5.1. HQ AMC is the lead command for AE. HQ USAFE is responsible for the management of AE resources and services within the USAFE AOR. The aircraft commander is responsible for ensuring the safety of the flight crew, AE crew, and all patients and passengers. The Medical Crew Director (MCD) is responsible for providing medical care to the patients. In matters concerning flight safety, decisions of aircraft commander are final; in matters of patient care, decisions of MCD are final. (**NOTE:** The term MCD will be used throughout this chapter, however on missions where a flight nurse is not on board the senior Aeromedical Evacuation Technician (AET) will function as MCD.

20.5.2. Operational control of AE missions is the same as for other airlift missions.

20.5.3. The AMC Command Surgeon (HQ AMC/SG) is responsible for providing standards and procedures concerning the treatment of patients in-flight, and for approval of any medical equipment used on AE missions.

20.5.4. The MCD will advise the aircraft commander when a patient's condition or use of medical equipment may affect aircraft operations.

20.5.5. The AEOO, if available, is responsible for supervising flight line execution of AE missions. The MCD is directly responsible for the safety and medical well being of patients on the aircraft and coordinates enplaning and deplaning procedures with the AEOO and supporting agencies.

20.6. Aircraft Commander Responsibilities.

- 20.6.1. Assist the MCD in obtaining patient support requirements based on local availability. The MCD will coordinate with the aircraft commander for integration of the flight and Aeromedical Evacuation Crew Members (AECM) for continuing missions in which no crew changes take place including en route transportation, dining, billeting, etc.
- 20.6.2. Brief the AE crew on the mission, flight plan, flight profile, and current threat (if applicable).
- 20.6.3. Maintain cabin altitude at the level requested by the GPMRC/TPMRC, tasking AE command element, or MCD.
- 20.6.4. Coordinate with the MCD to determine if any flight restrictions are necessary due to patient conditions and if passengers and cargo may be carried.
- 20.6.5. Coordinate with the MCD to insure mission required equipment is available/installed as necessary.
- 20.6.6. Advise the AECMs of intentions to start engines, taxi, itinerary changes, in-flight difficulties, etc.
- 20.6.7. Brief the MCD on additional responsibilities of the flight crew.
- 20.6.8. During Aeromedical Readiness Missions (ARM), coordinate with the Mission Clinical Coordinator (MCC) on planned simulated emergencies and training activities.
- 20.6.9. Patients or passengers may visit the flight crew compartment per **Chapter 5** of this instruction. The control of patients rests with the MCD, while control of the passengers is the responsibility of the flight crew, in conjunction with the MCD.
- 20.6.10. Transmit load messages and radio transmissions to GPMRC/TPMRC or tasking AE command element/ground personnel as requested by the MCD.
- 20.6.11. Coordinate Crash/Fire/Rescue (CFR) vehicle requirements when transiting airfields that are unfamiliar with AE requirements. CFR vehicle will stand by per AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*, and T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*.

20.7. Flight Crew Responsibilities:

- 20.7.1. Assist the AE crew with aircraft systems.
- 20.7.2. Provide AECMs who are not qualified in the C-20A with information in paragraph **20.10.1**.
- 20.7.3. Coordinate an emergency evacuation plan with the MCD.
- 20.7.4. Operate aircraft systems, i.e. doors, emergency exits, etc.
- 20.7.5. Assist the AE crew as necessary, providing such assistance does not interfere with primary duties.
- 20.7.6. Assist with aircraft configuration for AE operations.
- 20.7.7. Complete pre-flight/emergency briefings.

20.8. Aeromedical Evacuation Crew Responsibilities:

- 20.8.1. Primarily responsible for patient activities.
- 20.8.2. Assist flight crew/maintenance with aircraft configuration for AE operations.
- 20.8.3. Install and remove medical equipment/supplies.
- 20.8.4. Assist the In-flight Passenger Service Specialist with observation and care of passengers when it doesn't interfere with primary duties.
- 20.8.5. If C-20A qualified/certified, provide AECMs who are not qualified/certified in the C-20A with information identified in paragraph [20.10.1](#).

20.9. Patient Death In-flight. When a suspected death of a patient occurs in-flight, the planned itinerary will not be interrupted if the next scheduled stop is a US military airfield. If the next stop is a civilian airfield that does not service a US military medical facility, or a foreign military airfield, that stop will be over flown (mission requirements allowing). Coordination with command and control agencies is essential. The GPMRC/TPMRC or tasking AE command element must ensure that the MTF anticipating the aircraft's arrival at the civilian/foreign military airfield is informed of the cancellation.

Section 20C—Aeromedical Evacuation Crew Complement and Management

20.10. Aeromedical Evacuation Crew Complement:

20.10.1. **Aircrew Qualification.** AECMs must be fully qualified on at least one of the following aircraft; the C-9, C-17, C-130, or C-141, and are authorized to log primary flight time while performing duties on operational AE missions. Prior to being utilized as a certified AECM on C-20A aircraft, AECMs must receive training as directed in AFI 11-2AE, Volume 1. A flight crewmember is ultimately responsible for emergency egress and cabin safety.

20.10.2. **Crew Complement.** A basic AE crew on a C-20A aircraft consists of one FN and at least one but no more than two AETs. An alert crew consists of either one FN or one AET or both. The group/squadron chief nurse can adjust the crew complement. The group/squadron chief nurse is the final authority for increasing or decreasing the number of AECMs assigned to AE missions. Physicians, nurses, medical technicians, or other personnel designated as medical attendants (i.e., Critical Care Air Transport Team (CCATT) members) to specific patients does not constitute an augmented crew and does not extend crew duty time. Basic crews will not be augmented after crew duty has started.

20.10.3. The appropriate GPMRC/TPMRC or tasking AE command element will notify the command and control agencies or flying organization operations officer of the AE crew complement for each AE mission on C-20A aircraft.

20.11. Aeromedical Evacuation Crew Management. Manage AECM according to [Chapter 3](#).

Section 20D—Aeromedical Evacuation Aircrew Procedures

20.12. Checklists.

20.12.1. **General.** This instruction and AFI 11-215 set policy and provide guidance for the standardization of contents and maintenance of flight crew checklists. Checklists will be maintained per AFI 11-215 and applicable MAJCOM supplement.

20.12.2. Applicability. This instruction applies to all AECMs assigned to AMC and AMC-gained AE units. It also applies to theater assigned AECMs performing AE duties on the C-20A aircraft.

20.12.3. During all aircraft operations, AECMs will carry and use the guidance contained in their current abbreviated flight crew checklist.

20.12.4. Only MAJCOM/DO and SG approved inserts/briefings pertaining to crew positions will be kept in the abbreviated flight crew checklist binders.

20.12.5. Information in the AECM checklists will not be changed except by published revisions or changes.

Section 20E—Aeromedical Evacuation Airlift Operations

20.13. General.

20.13.1. Determining Factors. Consider the following factors when transporting patients on the C-20A aircraft; patient's diagnosis, condition, equipment, oxygen requirements, in-flight time, in-flight patient care requirements, and the number of medical personnel required. Emphasis must always be on providing quality and appropriate care while minimizing potential risks during transport.

20.13.2. Patient Load Planning Factors. The GPMRC/TPMRC or tasking AE command element determines the size/composition of the patient load on AE missions. Use AE mission planning factors in applicable AFI 11-2MDS-Specific Volume 3 and the appropriate AFI 41-series instructions.

20.13.3. Patient Preparation. A flight surgeon, if available, will determine the patient's suitability for AE on the C-20A aircraft. Medical authorities requesting the patient's evacuation must be informed of the in-flight physical stress on the patient. If the MCD determines the patient's medical condition is beyond the capability of the AE crew or aircraft, they will contact the GPMRC/TPMRC or tasking AE command element for further guidance. The MCD, in coordination with the appropriate theater medical validating authority, may refuse to accept any patient whose medical condition is beyond their capability. The MCD will advise the aircraft commander when a patient's condition or use of medical equipment may affect aircraft operation.

20.13.4. Equipment for AE Missions. Prior to use onboard AE missions, all medical equipment must be tested and deemed air worthy, and then approved for use by HQ AMC/SGX. For those unique patient moves requiring equipment that has not met the above criteria, contact GPMRC/TPMRC or tasking AE command element. GPMRC/TPMRC or tasking AE command element will obtain approval before use onboard the aircraft (applies to that specific mission only). AECMs are responsible for all medical supplies and equipment.

20.13.5. Aircraft Security. See [Chapter 7](#).

20.14. En Route Diversions.

20.14.1. The MCD is the medical authority onboard all AE missions and has the responsibility to determine what is beneficial or detrimental to the patient(s). If a physician is onboard, as an attendant to a patient, they will make decisions involving that specific patient's care and may be consulted for advice as appropriate. Specific guidelines are contained in applicable 41-series publications.

20.14.2. Should a diversion become necessary due to a change in patient's condition, the aircraft commander will make every effort to comply with the requests of the MCD. Establish communica-

tions with the responsible command and control agencies, who will relay the information to the appropriate GPMRC/TPMRC or tasking AE command element.

20.14.3. Should an en route diversion become necessary for reasons other than a change in patient's condition, the aircraft commander will coordinate with the MCD before deciding the point of landing. The welfare of the patients is a prime consideration in all such decisions; however, safety is the final determinant. The aircraft commander notifies the responsible command and control agencies of the diversion and requests the appropriate medical agencies be notified.

20.14.4. Normally, patients will be advised of changes in itinerary and reasons for the diversion.

20.14.5. If the MCD determines the diversion will be detrimental to a patient, or the aircraft commander determines the diversion to be unsafe, the command and control agencies will be advised and guidance requested.

20.14.6. ARMS are the primary means of preparing for AE airlift. These missions can be diverted to fulfill "real" versus "simulated" patient airlift requirements. All medical equipment/kits will be kept operationally ready at all times. The Portable Therapeutic Liquid Oxygen (PTLOX) system, when mission ready, will be filled with LOX. **EXCEPTION:** The PTLOX system, when mission capable, will be maintained with nitrogen IAW T.O. 15X-2-8-1, *Liquid Oxygen Converter Type CRU-87/U*.

20.14.7. Opportune Airlift. Opportune airlift is preferred to launching a special airlift aircraft. The appropriate GPMRC/TPMRC or tasking AE command element and airlift agency should direct the move. Use of opportune airlift is considered an unscheduled AE mission, and managed/reported in the same manner as any other AE mission, to include the change of the mission number when patient(s) is/are onboard. AECMs on these missions will either be qualified/certified or under supervision while gaining qualification/certification in the affected aircraft.

20.15. Ground Operations. Engines should be shut down during enplaning and deplaning of patients.

20.16. Refueling Operations.

20.16.1. Refueling normally begins after deplaning patients are off the aircraft and before enplaning that station's patients. This minimizes the number of persons on board in case of an emergency. Servicing will be per AFI 32-2001 and T.O. 00-25-172.

20.16.2. Concurrent servicing may be accomplished with patients onboard provided:

20.16.2.1. The Chief Servicing Supervisor (CSS) coordinates with all personnel involved before beginning concurrent operations.

20.16.2.2. Prior to starting concurrent servicing, the total number of patients, passengers, and crew on board the aircraft will be given to the fire department.

20.16.2.3. Loading ramps/stairs are in place for immediate use and exits are opened for egress.

20.16.2.4. The aircraft is thoroughly ventilated.

20.16.2.5. At least two AECMs (one must be a FN) remain onboard to observe patients and assist patients in the event of an egress.

20.16.3. If cabin lights, lavatories, electrical power to operate medical equipment and aircraft inter-phone are operating before refueling, use may be continued during servicing operations. Only

those systems, switches or electrical circuits needed to operate equipment to sustain life, may be turned on and used during refueling.

20.16.4. Patients and passengers will not enter or exit the aircraft during servicing. Crewmembers may enter or exit the aircraft only when performing essential duties associated with the concurrent servicing operation.

20.16.5. A member of the flight crew must be positioned in the passenger compartment and have intercom contact with the CSS during refueling operations.

20.16.6. Activities around the aircraft will be kept to a minimum during the refueling process. Onload/offload patient and passenger baggage before or after refueling.

20.17. Aircraft Pressurization. Normally altitude restrictions are passed from the GPMRC/TPMRC or tasking AE command element to command and control agencies for flight planning purposes. The MCD will advise the aircraft commander of any new cabin altitude or rate of cabin altitude change restrictions during the pre-flight briefing update.

20.18. Aircraft Configuration:

20.18.1. On dedicated AE missions, configure the aircraft during pre-flight.

20.18.2. Litter Support Provisions. There are none available.

20.18.3. Available ambulatory seating will depend on the aircraft cabin's mission configuration.

20.18.4. Therapeutic Oxygen. Outlet is installed in the forward armrest of the DV couch. A therapeutic oxygen mask is located in the forward armrest storage compartment of the DV couch. Therapeutic oxygen is available at all times.

20.18.5. Patient and passenger emergency oxygen is available on the aircraft. Patients and passengers will use the applicable passenger emergency oxygen system.

20.18.6. AECMs will have portable oxygen available. AECMs will use an MA-1 portable oxygen bottle, or equivalent, which will be secured near their assigned seat.

20.18.6.1. AE units will not maintain MA-1 portable oxygen bottles. MA-1 portable oxygen bottles must be functionally located to ensure proper maintenance, servicing, and storage. Dash 21/Alternate Mission Equipment (AME) shops will ensure MA-1 portable oxygen bottles are serviceable and properly maintained and stored. Dash 21/AME shops will ensure a sufficient number of MA-1 portable oxygen bottles are delivered to the aircraft to meet scheduled AE mission requirements.

20.18.7. Do not secure aircraft or medical equipment adjacent to an emergency exit in a manner that will prevent or impede egress.

20.18.8. Patients not normally transported on the C-20A aircraft:

20.18.8.1. Critical prognosis requiring extensive patient care/medical equipment, i.e.; burns, cardiac problems, or multiple trauma.

20.18.8.2. Respiratory problems requiring large amounts of therapeutic oxygen, ventilator support and/or frequent suctioning.

20.18.8.3. Patients with contagious illness.

20.18.8.4. High risk neonates without special medical supervision from a neonatal team.

20.18.8.5. Patients on “Stryker” type turning frames.

20.19. Passengers and Cargo.

20.19.1. The aircraft commander, with the concurrence of the MCD, will ensure maximum aircraft utilization for passengers and cargo. Passenger restrictions based upon patient considerations will be identified when seats are released. At stations with a GPMRC/TPMRC or tasking AE command element, the AEOO/GPMRC/TPMRC or tasking AE command element will advise the appropriate command and control agencies on the number of seats available for passengers.

20.19.2. Cargo and passengers may be carried with patients unless a clear detriment to the health and well being of the patient or passengers can be demonstrated. The decision will be made by the MCD, considering the need for maximum utilization of the aircraft. Conflicts will be referred to the respective GPMRC/TPMRC or tasking AE command element for a decision.

20.19.3. Cargo will not be bumped except in unusual/abnormal cases, and only after the MCD has coordinated with the aircraft commander and notified the local GPMRC/TPMRC or tasking AE command element.

20.19.4. Hazardous cargo will not normally be transported aboard AE missions except in extreme circumstances.

20.20. Crash/Fire/Rescue.

20.20.1. Aircraft carrying patient(s) will be provided CFR protection per T.O. 00-25-172. Stand-by CFR vehicle is not necessary during normal operations. A CFR vehicle can be available upon request. The flight crew will coordinate CFR requirements.

20.20.2. At non-AMC bases, non-U.S. military bases, and civilian airfields, the controlling agency will coordinate the CFR coverage, as necessary. The request for CFR vehicle coverage may be denied. This will not prevent refueling operations from occurring.

20.21. AE Call Sign and Use of Priority Clearance:

20.21.1. For AE missions, use the call sign “Air Evac” followed by the five digit aircraft number (i.e. Air Evac 12345) or mission designator (as required by FLIP). Revert to standard call sign when the AE portion of the mission is completed.

20.21.2. The AE “priority clearance” will be used when carrying patients classified as “urgent” or “priority,” who require urgent medical attention. AE priority will only be used for that portion of the flight requiring expedited handling. Aircraft commanders will request priority handling if AE missions are experiencing long delays during takeoff or landing phases, that will affect a patient’s condition.

20.21.3. This does not allow use of AE priority status simply to avoid Air Traffic Control (ATC) delays, make block/departure times, or avoid inconveniences. ATC agencies do not question the motive when an AE priority is declared. Use this status judiciously.

20.22. Load Message.

20.22.1. At military bases, the flight crew will pass inbound load messages to the proper command and control personnel. At civilian airfields, ground control will be notified.

20.22.2. When required, the MCD will complete an appropriate AF Form 3858, **C-130/C-141 Aero-medical Evacuation Mission Offload Message**, or applicable offload message, per procedures in applicable 41-series publications.

20.23. Change in Patient Status. Change in patient status will be managed per applicable 41-series publications.

Chapter 21

AIRCREW CHEMICAL OPERATIONS AND PROCEDURES

21.1. Chemical Defense (CD) Capability. The C20A is not capable of operations in a known chemical environment. This chapter is intended to provide guidance and standardization among airlift assets. Wearing ground crew defense ensemble will constrain normal operations. The 86OG/CC may develop a limited CD capability based on threat, risk factors, and crew capability. To properly adapt to a limited CD environment, aircrews must understand hazards involved. Use the following when developing this capability.

21.1.1. This chapter is intended to enhance other chemical defense training and provide the crewmember a basic understanding of utilizing the defense ensemble in a chemical-biological threat area (CBTA). It combines information from technical orders and unit inputs to form a single source document.

21.1.2. This chapter briefly describes the nature of the chemical threat and agents that may be faced. Secondly, it discusses some of the situations and problems the aircrew may encounter in a chemical threat environment. While the information presented may need to be modified, the specific objectives of this chapter will help prepare the aircrew member for the unique challenges imposed by chemical weapons.

21.2. Factors Influencing the Chemical Warfare (CW) Agent Hazard .

21.2.1. General. The major instances in which a crew may be exposed to chemicals is through inhalation, absorption through the skin, eyes, and ingestion. Contaminated drink and food are considered harmful, but immediate concerns must be contamination avoidance to the maximum extent, limit exposure of the skin and eyes, as well as avoid breathing the contaminants. Factors affecting persistence are weather, agent physical characteristics, method of dissemination, droplet size, and the terrain.

21.2.2. Weather. Factors include temperature, wind, humidity, precipitation and atmospheric stability. For example, high winds and heavy rains reduce the contamination hazard. Conversely, lack of wind, overcast skies, and moderate temperatures favor persistence.

21.2.3. Agent Dissemination. Disseminated as vapors, aerosols, or liquids. Solids seem unlikely, but agents may become solids at lower temperature.

21.2.4. Agent Droplet Size. Persistence factor is determined by droplet size. Agents may be mixed with other chemicals ("thickeners"), and form large drops making removal more difficult.

21.2.5. Surface and Terrain. CW agent clouds tend to follow the terrain, flowing over countryside and down valleys. Chemicals persist in hollows, depressions, and other low areas. Rough terrain retards cloud movement. Flat countryside allows a uniform, unbroken cloud movement. Vegetated areas are more contaminated than barren terrain. Liquid agents soak into porous surfaces, making evaporation much slower than for non-porous surfaces.

21.3. Categories of CW Agents. CW agents having military significance may be categorized as nerve, blister, choking, and blood. Because they are produced biologically, toxins are technically not chemical agents. However, they are considered a potential CW threat.

21.4. Nerve Agents.

21.4.1. **Military Significance.** Nerve agents are the most lethal and fastest acting of the standard CW agents. These agents affect the nervous system and are highly toxic whether inhaled, ingested, or absorbed through the skin. Persistency ranges from hours to many days.

21.4.2. **Symptoms of Exposure.** Nerve agent exposure is difficult to distinguish. Symptoms include runny nose, tightness of the chest, difficulty breathing, excessive sweating, drooling, nausea, vomiting, diarrhea, and convulsions. Nerve agents can also cause muscular twitching, dimness of vision, and pinpointing of the pupils.

21.4.3. **Onset of Symptoms.** Inhalation produces symptoms within 1-2 minutes. The victim may be incapacitated within 5-10 minutes. Death may occur after several hours or days. Ingestion may cause the same symptoms, however, incapacitation may take longer. The body retains nerve agents for an extended period; thus intermittent, cumulative exposure to low amounts can lead to the same ultimate effect as a single exposure to a higher amount.

21.4.4. **Protection.** When properly worn, the various chemical protective masks prevent inhalation of nerve agents and all layers of the outer garment must be protected against saturation of liquids, chemical agents, water, or petroleum.

21.4.5. **Antidotes and Prophylaxis.** Antidotes are effective in combating effects of nerve agent exposure. These antidotes may be effective if given to a victim having advanced symptoms, and as long as the victim is made to continue breathing. People who use the antidotes must be seen by medical personnel and may not be combat-ready for several days.

21.5. Blister Agents.

21.5.1. **Military Significance.** Blister agents are dispensed as vapors or liquids, and may be encountered as solids. These agents primarily affect the eyes, respiratory tract, and the skin.

21.5.2. **Symptoms of Exposure.** Placed on the skin, a drop the size of a pinhead can produce a blister one inch in diameter. This action is accentuated by moisture; hence, a more severe danger is present during periods of sweating. The groin and armpits, which tend to be sweaty, are especially susceptible to blister agents. Blister agents that come in contact with the eyes lead to redness, watering of the eyes, blurring of vision, sensitivity to light, and, frequently, blindness. Inhalation causes serious damage due to burns and blisters to the mouth, nose, throat, and lungs. Incapacitation may last for days or weeks; aircrews will probably be unable to fly for indefinite periods. After hospitalization, complications from blister agent exposure can arise and may be fatal.

21.5.3. **Onset of Symptoms.** Blister agents are quickly absorbed through the skin. However, it usually takes several minutes (up to 5 minutes and as long as several hours) for the symptoms to appear. They act most rapidly in liquid form, but are also effective in vapor form.

21.5.4. **Protection.** Exposed areas must be cleaned thoroughly immediately after exposure. Blister agents are easily transferred from contaminated surfaces; thus, great care must be taken to avoid contact with any contamination.

21.6. Choking Agents.

21.6.1. **Military Significance.** These agents are disseminated as vapors and when inhaled affect the respiratory system by damaging the lungs. Persistence is very brief, and they dissipate rapidly (within minutes) under most field conditions.

21.6.2. **Symptoms of Exposure.** Choking agents cause coughing, choking, tightness of the chest, nausea, headache, and watering of the eyes. Choking agents can be lethal, with death normally from the lungs filling with fluids, making breathing difficult or impossible.

21.6.3. **Onset of Symptoms.** Exposure to choking agents has an immediate effect. Victims experience slightly delayed effects, such as painful cough, breathing discomfort, and fatigue.

21.6.4. **Protection.** The ground crew protective mask is essential to protect against exposure.

21.7. Blood Agents.

21.7.1. **Military Significance.** Blood agents are usually dispensed as vapor or aerosol and inhaled. Under most field conditions they may briefly persist on target (up to 10 minutes).

21.7.2. **Symptoms of Exposure.** Exposure to a single breath of blood agent causes giddiness, headaches, confusion, and nausea. As dose increases, breathing becomes more difficult. The victim will have deep, uncontrollable breathing and cramps, then loss of consciousness. Death is certain if the victim receives no medical aid.

21.7.3. **Protection.** Blood agents are breathing hazards.

21.7.4. **Additional Threats.** Blood agents will damage mask filters. All personnel must change mask filters at the earliest possible opportunity after a blood agent attack.

MARVIN R. ESMOND, Lt General, USAF
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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References.***

AFPD 10-9, *Lead Operating Command Weapon Systems Management*

AFPD 10-21, *Air Mobility Lead Command Roles and Responsibilities*

AFPD 11-2, *Aircraft Rules and Procedures*

AFPD 24-4, *Customs and Border Clearance*

AFI 10-403, *Deployment Planning*

AFI 11-202V1, *Aircrew Training*

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*

AFI 11-202V3, *General Flight Rules*

AFI 11-215, *Flight Manuals Program (FMP)*

AFI 11-209, *Air Force Participation in Aerial Events*

AFI 11-218, *Aircraft Operation and Movement on the Ground*

AFI 11-401, *Flight Management*

AFI 11-2C-20V1, *C-20 Aircrew Training*

AFI 11-2C-20V2, *C-20 Aircrew Evaluation Criteria*

AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*

AFI 11-299, *Nuclear Airlift Operations*

AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*

AFI 31-401, *Information Security Program Management*

AFI 21-101, *Maintenance Management of Aircraft*

AFMAN 22-230, *Instrument Procedures*

AFI 23-202, *Buying Petroleum Products and Other Supplies and Services Off-Station*

AFI 31-101V1, *Air Force Physical Security Program*

AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*

AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*

AFJI 48-104, *Quarantine Regulations of the Armed Forces*

AFI 48-123, *Medical Examinations and Standards*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-204, *Safety Investigations and Reports*

AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections.*

AFMAN 10-206, *Operational Reporting*

AFMAN 11-217, *Instrument Flight Procedures*

AFMAN 23-110V2 Part 3, *Supply/Fuels Wartime Planning*

DoD 4515.13R, *Air Transportation Management*

AFOOSH Standard 127-100, *Aircraft Flight Line - Ground Operations and Activities*

USAFEI 11-201, *USAFE Buffer Zone (BZ) Procedures*

Abbreviations and Acronyms.

AC—Aircraft Commander

ACDE—Aircrew Chemical Defense Ensemble

ACF—Acceptance Check Flight

AGE—Aerospace Ground Equipment

AOR—Area of Responsibility

APU—Auxiliary Power Unit

ASRR—Airfield Suitability and Restrictions Report

ATC—Air Traffic Control

BRNAV—Basic Area Navigation Airspace

C2—Command and Control

CDT—Crew Duty Time

CG—Center of Gravity

CW—Chemical Warfare

CCA—Contamination Control Area

CECR—Crew Enhancement Crew Rest

CFP—Computer Flight Plan

COE—Certification of Equivalency

CSS—Chief Servicing Supervisor

CVR—Cockpit Voice Recorder

DCS—Defense Courier Service

DH—Decision Height

EAL—Entry Access List

ETA—Estimated Time of Arrival

ETE—Estimated Time En route

ETIC—Estimated Time in Commission

ETP—Equal Time Point

FCB—Flight Crew Bulletin

FA—Flight Attendant

FAF—Final Approach Fix

FCF—Functional Check Flight

FCIF—Flight Crew Information File

FDP—Flight Duty Period

FIR—Flight Information Region

FMC—Fully Mission Capable

FMS—Flight Management System

FOD—Foreign Object Damage

FOL—Forward Operating Location

FSO—Flying Safety Officer

GPS—Global Positioning System

HATR—Hazardous Air Traffic Report

ICS—Infant Car Seat

IFF—Identification Friend or Foe

INS—Inertial Navigation System

LRC—Long Range Cruise

MAF—Mobility Air Forces

MARSA—Military Assumes Responsibility for Safe Altitude

MC—Mission Capable

MCD—Medical Crew Director

MDS—Mission Design Series (e.g., C-21)

ME—Mission Essential

MEL—Minimum Equipment List

MOB—Main Operating Base

MNPS—Minimum Navigation Performance Specifications

MSL—Mean Sea Level

NDB—Non Directional Beacon

NEW—Net Explosives Weight

NM—Nautical Mile

NOTAM—Notice to Airmen

OIS—Obstacle Identification Surface

PDO—Publication Distribution Office

PNF—Pilot Not Flying

PMCR—Post Mission Crew Rest

PPR—Prior Permission Required

PMSV—Pilot to Meteorologist Service

RNP—Required Navigation Performance

ROE—Rules of Engagement

RRFL—Required Ramp Fuel Load

RVSM—Reduced Vertical Separation Minimum

SAAM—Special Assignment Airlift Mission

SID—Standard Instrument Departure

SIGMET—Significant Meteorological Information

STIF—Supplemental Theater Information File

STM—Supplemental Training Mission

TOLD—Take off and Landing Data

Terms

Terms—The following is a list of common mobility terms and associated abbreviation. Additional terms common to the aviation community may also be found in FAR, Part 1 and DoD FLIP *General Flight Planning*, Chapter 2.

Advanced Computer Flight Plan (ACFP)—An Air Force level system which is the follow on replacement for the Optimized AMC Flight Plan (formerly Jeppesen). The system brings an improved user interface to the customer, runs in Microsoft Windows, and communicates with a mainframe located at Scott AFB IL. Once the optimized flight plans are produced on the mainframe, they are transmitted back to the Window's PC.

Aeromedical Evacuation (AE)—Movement of patients under medical supervision between medical treatment facilities (MTFs) by air transportation.

Aeromedical Evacuation Control Center (AECC)—A medical element established to operate in conjunction with C2 Centers. The AECC (GPMRC/TPMRC) coordinates overall medical requirements with airlift capabilities, and monitors patient movement.

Aeromedical Evacuation Crew Member (AECM)—Qualified flight nurse (FN) and aeromedical evacuation technician (AET) performing AE duties.

Aeromedical Evacuation Operations Officer (AEEO)—A Medical Service Corps (MSC) officer or medical administrative specialist/technician (AFSC 4A0X1) assigned to the AE system to perform duties outlined in applicable Air Force policy directives, instructions, 41-series handbooks, and this AFI.

Aeromedical Readiness Mission (ARM)—Training missions using simulated patients to prepare for the wartime/contingency movement of patients.

Air Force Satellite Communication (AFSATCOM)—Satellite communications system capable of 75 bits per second (BPS) record message traffic.

Air Mobility Operations Control Center (AMOCC)—Operations center which controls movement of theater assigned air mobility assets. (USAFE AMOCC, Ramstein AB, GE)

Bird Aircraft Strike Hazard (BASH)—An Air Force program designed to reduce the risk of bird strikes.

Bird Watch Condition Low—Normal bird activity [as a guide, fewer than 5 large birds (waterfowl, raptors, gulls, etc.) or fewer than 15 small birds (terns, swallows, etc)] on and above the airfield with a low probability of hazard. Keep in mind a single bird in a critical location may elevate the Bird Watch Condition (BWC) to moderate or severe.

Bird Watch Condition Moderate—Increased bird population (approximately 5 to 15 large birds or 15 to 30 small birds) in locations that represent an increased potential for strike. Keep in mind a single bird in a critical location may elevate the BWC to moderate or severe.

Bird Watch Condition Severe—High bird population (as a guide, more than 15 large birds or 30 small birds) in locations that represent an increased potential for strike. Keep in mind a single bird in a critical location may cause a severe BWC.

BLUE BARK—US military personnel, US citizen civilian employees of the Department of Defense (DoD), and the dependents of both categories who travel in connection with the death of an immediate family member. It also applies to escorts for dependents of military members. Furthermore, the term is used to designate the personal property shipment of a deceased member.

Border Clearance—Those clearances and inspections required to comply with federal, state, and local agricultural, customs, immigration, and immunizations requirements.

Category I Route—Any route that does not meet the requirements of a category II route, including tactical navigation and over water routes.

Category II Route—Any route on which the position of the aircraft can be accurately determined by the overhead crossing of a radio aid (NDB, VOR, TACAN) at least once each hour with positive course guidance between such radio aids.

Charge Medical Technician (CMT)—An AET responsible for ensuring completion of enlisted aeromedical crew duties.

COIN ASSIST—Nickname used to designate dependent spouses accompanying dependent children and dependent parents of military personnel reported missing or captured who may travel space available on military aircraft for humanitarian purposes on approval of the Chief of Staff, United States Army; Chief of Staff, United States Air Force; Chief of Naval Operations; or the Commandant of the Marine Corps.

CONFERENCE SKYHOOK—Communication conference available to help aircrews solve in-flight problems that require additional expertise.

Contingency Mission—Mission operated in direct support of an OPORD, OPLAN, disaster, or emergency.

Controlling Agency—Agency responsible for management of aircraft during airlift missions.

Critical Phase Of Flight—Takeoff, approach, and landing.

Deadhead Time—Duty time for crewmembers positioning or de-positioning for a mission or mission support function and not performing crew duties.

Designated Courier—Officer or enlisted member in the grade of E-5 or above of the US Armed Forces, or a Department of State diplomatic courier, selected by the Defense Courier Service (DCS) to accept, safeguard, and deliver DCS material as directed. A primary aircrew member should be used as a courier only as a last resort.

Desolate Terrain Missions—Any mission in excess of one-hour over desert, tropical, or jungle terrain (not to include flights conducted over the CONUS).

Direct Instructor Supervision—Supervision by an instructor of like specialty with immediate access to controls (for pilots, the instructor must occupy either the pilot or copilot seat).

Distinguished Visitor (DV)—Passengers, including those of friendly nations, of star or flag rank or equivalent status, to include diplomats, cabinet members, members of Congress, and other individuals designated by the DoD due to their mission or position (includes BLUE BARK and COIN ASSIST).

Double Blocking—When an aircraft is required to block-in at one parking spot, then move to normal parking for final block-in. The extra time required for double blocking will be taken into account during mission planning/scheduling. To compensate for double blocking on departure, the aircrew “legal for alert time” may be adjusted to provide additional time from aircrew “show time” to departure. When double blocking is required on arrival, the aircrews entry into crew rest will be delayed until post-flight duties are complete.

Due Regard—Operational situations that do not lend themselves to International Civil Aviation Organization (ICAO) flight procedures, such as military contingencies, classified missions, politically sensitive missions, or training activities. Flight under “Due Regard” obligates the military aircraft commander to be his or her own air traffic control (ATC) agency and to separate his or her aircraft from all other air traffic. (See FLIP General Planning, section 7.)

Equal Time Point—Point along a route at which an aircraft may either proceed to destination or first suitable airport or return to departure base or last suitable airport in the same amount of time based on all engines operating.

Estimated Time In Commission (ETIC)—Estimated time required to complete required maintenance.

Familiar Field—An airport at which unit assigned aircraft routinely frequent. Each unit commander will designate familiar fields for their aircraft. One pilot must have flown into the field for it to be considered a familiar field, regardless of unit commander designation.

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

Global Patient Movement Requirements Center (GPMRC)—A joint activity reporting directly to the Commander in Chief, US Transportation Command, the Department of Defense single manager for the regulation of movement of uniformed services patients. The GPMRC authorizes transfers to medical

treatment facilities of the Military Departments or the Department of Veterans Affairs and coordinates intertheater and inside continental United States patient movement requirements with the appropriate transportation components commands of US Transportation Command.

Ground Time—Interval between engine shut down and next takeoff time.

HAMMER ACE—Air Force Command, Control, Communications and Computer Agency (AFC4A) assigned personnel performing essential communication missions carried by OSA aircraft for accident investigations.

Hazardous Cargo or Materials (HAZMAT)—Articles or substances that are capable of posing significant risk to health, safety, or property when transported by air.

L-Band SATCOM—600 BPS satellite communications (SATCOM) system contracted through the International Maritime Satellite Organization (INMARSAT) used primarily for command and control. The system consists of a satellite transceiver, a laptop computer, and a printer.

Local Training Mission—A mission scheduled to originate and terminate at home station (or an off-station training mission), generated for training or evaluation, and executed at the local level.

Maintenance Status:—

A-1. No maintenance required.

A-2 (Plus Noun). Minor maintenance required, but not serious enough to cause delay. Add nouns that identify the affected units or systems, i.e. hydraulic, ultra high frequency (UHF) radio, radar, engine, fuel control, generator, etc. Attempt to describe the nature of the malfunction to the extent that appropriate maintenance personnel will meet the aircraft. When possible, identify system as Mission Essential (ME) or Mission Contributing (MC).

A-3 (Plus Noun). Major maintenance required and a delay is anticipated. Affected units or systems are to be identified as in A-2 status above.

A-4. Aircraft or system has suspected or known biological, chemical, or radiological contamination.

Medical Crew Director (MCD)—A FN responsible for the supervision of patient care and aeromedical crew assigned to AE missions. On missions where a FN is not onboard, the senior AET will function as the MCD.

Mission Clinical Coordinator (MCC)—A qualified MCD or CMT, in addition to the basic crew and instructors and flight examiners. Responsible for coordinating training activities on ARMs.

MYSTIC STAR—A High Frequency (HF) network tied together with inter-site circuits to provide worldwide communications capability for high-ranking government officials. When activated for a mission, the master net control station at Andrews AFB has the capability to remotely seize control of HF equipment around the world providing airborne user continuous contact with the operator at Andrews. MYSTIC STAR service is only provided for certain missions.

Off Station Training Flight—A training flight that originates or terminates at other than home station that is specifically generated to provide the aircrew experience in operating away from home station. Off station trainers will not be generated solely to transport passengers, cargo, or position/deposition crewmembers.

Operational Control (OPCON)—Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control 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. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint forces commanders and Service and/or functional component commanders. Operational control normally provides fully authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON.

Operational Missions—Non-training missions executed at or above the controlling agency level. Operational missions termed “CLOSE WATCH” include priority 1, 2, and 3 missions tasked by the controlling agency.

Opportune Airlift—Transportation of personnel, cargo, or both aboard aircraft with no expenditure of additional flying hours to support the airlift.

Over water Flight—Any flight that exceeds power off gliding distance from land.

Patient Movement Categories—

1. **Urgent.** Patients who must be moved immediately to save life, limb, or eyesight, or to prevent complication of a serious illness.
2. **Priority.** Patients requiring prompt medical care that must be moved within 24-hours.
3. **Routine.** Patients who should be picked up within 72-hours and moved on routine/scheduled flights.

Permit to Proceed— Aircraft not cleared at the first US port of entry may move to another US airport on a permit to proceed issued by customs officials at the first port of entry. This permit lists the requirements to be met at the next point of landing, i.e. number of crew and passengers, cargo not yet cleared. Aircraft commanders are responsible to deliver the permit to proceed to the customs inspector at the base where final clearance is performed. (Heavy monetary fines can be imposed on the aircraft commander for not complying with permit to proceed procedures.)

Point Of No Return— Most distant point along the planned route from which an aircraft may safely return to its point of departure or alternate airport with approach and landing fuel.

Point of Safe Return— Most distant point along the planned route from which an aircraft may safely return to its point of departure or alternate airport with required fuel reserve.

Scheduled Return Time (SRT)— Scheduling tool used by air mobility units to predict when crews will return to home station. It allows force managers to plan aircrew availability and provide crews visibility over monthly flying activities. AMC and AMC-gained aircrews (except those on standby at home station) have an SRT established on their flight orders.

Scheduled Takeoff Time— Takeoff time is established in the schedule or OPORD. For air aborts and

diversions, this will be engine shut down time plus authorized ground time. Early deviation does not apply to aborts or diversions unless the mission is formally rescheduled by current operations.

Significant Meteorological Information (SIGMET)— Area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, severe and extreme turbulence, severe icing, and widespread dust or sand storms. SIGMETs frequently cover a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

Special Assignment Airlift Mission (SAAM)— Funded airlift that cannot be supported by channel missions because of the unusual nature, sensitivity, or urgency of the cargo or that requires operations to points other than the established channel structure.

Stations Time— In air transport operations, the time at which crews, passengers, and cargo are to be on-board and ready for the flight. Normally, 30 minutes before takeoff time. Aircrews will have completed their pre-flight duties and be at their crew positions or ready to onload passengers (one pilot in seat).

Theater Patient Movement Requirements Center (TPMRC)— Responsible for the coordination and requirements for patient movement from communication zone (COMMZ) to CONUS.

Time Out— Common assertive statement used to voice crewmember concern when safety may be jeopardized.

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 AFI.

Unit Commanders— For purposes of this AFI, unit commanders are operations group commanders or equivalent.

Zero Fuel Weight— Weight, expressed in pounds, of a loaded aircraft not including wing and body tank fuel. All weight in excess of the maximum zero fuel weight will consist of usable fuel.

Attachment 2**COMBAT OPERATIONS CHECKLISTS**

A2.1. Functional Statement : Use the Hostile Fire Entry and Exit checklists during flights into low threat environments according to **Chapter 17**. Copy this checklist and inserted into pilots/flight mechanic checklist. Unit may create a similar checklist for use in ENAME. Insert this checklist behind TO 1C-20A-1CL-1 according to AFI 11-215 and USAFE supplement.

Figure A2.1. Hostile Fire Entry/Exit Checklist

BY ORDER OF THE SECRETARY OF THE AIR FORCE

**AFI 11-2C-20V3 CL-1
1 MAY 2000**



Flying Operations

HOSTILE FIRE ENTRY AND EXIT CHECKLISTS

This checklist establishes procedures for the operation of C-20A aircraft employed by Mobility Air Forces (MAF) to accomplish their worldwide missions.

This checklist is printed on standard 8 ½” x 11” bond paper then trimmed to a unique size 4 ½ “ x 6 ½” that will fit the standard plastic C-20A aircrew checklist binders. Units may request copies of this checklist printed on a water proof-based media (in the size outlined) from the OPR. This product reduces weight and eliminates the need for plastic inserts. Limit water proof copies to aircrew only for use in-flight and training purposes.

HOSTILE FIRE ENTRY CHECKLIST 2

HOSTILE FIRE EXIT CHECKLIST 3

OPR: HQ AMC/DOV (Maj Stillings)
 Certified by: HQ USAF/XOO (Maj Gen Michael S. Kudlacz)
 Number of Printed Pages: 3 - Distribution: F

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HOSTILE FIRE ENTRY CHECKLIST

Complete this checklist not later than 30-minutes before entering the threat environment.

1. CREW BRIEFING—"COMPLETED" (P-CP-FM)
Review intentions (airspeeds & altitudes), threat locations, aircraft Configurations, and approach requirements.
2. SURVIVAL EQUIPMENT-"SECURED" (P-CP-FM)
Ensure the following equipment is immediately available (As Required)
 - a. Flight Gloves
 - b. Flak Vest/Body Armor
 - c. Chemical Defense Ensemble
 - d. Oxygen Mask

WARNING

If protective equipment is to be worn, don at this time.

3. INTERNAL AND EXTERNAL LIGHTS - AS REQUIRED
Set interior lighting to the minimum required (night only). Turn all non-essential exterior lighting-OFF
4. IFF - SET (AS REQUIRED)
5. NAV AND COMM RADIOS - AS REQUIRED
Brief essential radios. To reduce emissions, turn off all non-essential radios and equipment.
6. RADAR - AS REQUIRED
If threat dictates or if not required for flight, turn OFF to reduce emissions.
7. RADIO ALTIMETER - SET
8. LOOSE ITEMS – SECURED
Ensure cabin is secure.

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9. OBSERVERS – IN POSITION

All crew members not performing crew duties will scan outside the aircraft for threats, as briefed by the aircraft commander.

10. HOSTILE FIRE ENTRY CHECKLIST-
“COMPLETE” (P, CP-FM)

HOSTILE FIRE EXIT CHECKLIST

NOTE: This checklist returns the aircraft to normal cruise configuration upon departing the threat environment.

1. OBSERVERS -”CLEARED TO REPOSITION” (P)
2. BATTLE DAMAGE ASSESSMENT - COMPLETE
If available aircrew members will make a sweep of the aircraft looking for any damage.
3. SURVIVAL EQUIPMENT - AS REQUIRED (P-CP-FM)
4. IFF - SET
5. NAV AND COMM RADIOS - SET
6. RADAR - AS REQUIRED
7. INTERNAL AND EXTERNAL LIGHTS - SET
8. HOSTILE FIRE EXIT CHECKLIST –
“COMPLETE” (P-CP-FM)