BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-2VIP, VOLUME 3

12 FEBRUARY 2010

89TH AIRLIFT WING Supplement

22 OCTOBER 2010

Flying Operations

VIP OPERATIONS PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at **www.e-Publishing.af.mil.**

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ AMC/A3VS

Supersedes: AFI11-2SAM-CSMV3, 1 December 2004

Certified by: HQ USAF/A3O-A (Mr. Gerald F. Pease, Jr., SES)

Pages: 176

(89AW)

OPR: 89 OG/OGV

Supersedes: AF111-2SAM/CSMV3_89OGSUP1, 16 May 2005

Certified by: 89 OG/CC (Col Monty Perry)

Pages: 38

This instruction implements Air Force Policy Directive (AFPD) 11-2, *Aircraft Rules and Procedures* and references AFI 11-202, Volume 3, *General Flight Rules;* as well as Air Force Tactics Techniques and Procedures AFTTP 3-3.38B, *C-20/C-37 Combat Aircraft Fundamentals* (Draft); and AFTTP 3-3.38C, *C-32/C-40 Combat Aircraft Fundamentals* (Draft). It establishes policy for the operation of C-9, C-20, C-32, C-37, C-40 and VC-25 aircraft to safely and successfully accomplish their worldwide mobility missions. This instruction applies to Air Mobility Command (AMC), Pacific Air Forces (PACAF), United States Air Forces in Europe (USAFE), Air Force Reserve Command (AFRC), and Air National Guard (ANG) units. 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.

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This publication may be supplemented at any level, but all direct Supplements must be routed to the OPR of this publication for coordination prior to certification and approval.

The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. The Privacy Act System Number F011 AF XO A, Aviation Resource Management System (ARMS), covers required information. The authority for maintenance of the system is 37 U.S.C. 301a, *Incentive Pay;* Public Law 92-204, Section 715, *DoD Appropriations Act for 1972*, December 18, 1971*;* Public Law 93-294, *Aviation Career Incentives Act of 1974*, May 31, 1974*;* Public Law 93-570, *Continuing Appropriations, 1975*, February 25, 1975*;* DoD Directive 7730.57, *Aviation Career Incentive Act and Required Annual Report*, February 5, 1976*;* and Executive Order 9397, *Numbering System for Federal Accounts Relating to Individual Persons*, November 22, 1943. The Paperwork Reduction Act of 1995 affects this instruction.

(89AW) Air Force Instruction (AFI) 11-2VIP, Volume 3, *VIP Operations Procedures*, 12 February 2010, is supplemented as follows: The purpose of this supplement is to establish local guidance for 89 AW Special Air Missions (SAM) and Presidential Airlift Group (PAG) missions. The 89 OG Commander (89 OG/CC) and Presidential Airlift Group Commander (PAG/CC) are the waiver authorities for this supplement. Specific responsibilities are defined herein for 89 OG aircrew members and PAG aircrew members *ONLY*. 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. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847s from the unit through 89 Operations Group Stan/Eval (89 OG/OGV). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **htttps://www.my.af.mil/gcss-af61a/afrims/afrims/**.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. This version incorporates changes mandated by the HQ AMC/A3V standardized template. Major changes include: integration of the Air Reserve Components, identification of command authority for operational and training missions, clarification of instrument procedures to match guidance in AFMAN 11-217 Volume 1, *Instrument Flight Procedures* and the Federal Aviation Administration (FAA) *Aeronautical Information Manual* (AIM), and addition of information about tactical employment not covered in respective AFTTP volumes.

(89AW) This supplement has been substantially revised and must be completely reviewed. Major changes include the incorporation of numerous outstanding flight crew information files. In addition, the list of approved 89 AW local training airfields has been updated.

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Chapter 1

GENERAL INFORMATION

1.1. General.

1.1.1. This Air Force Instruction (AFI) provides policy for operating C-9, C-20, C-37, C-32, C-40 and VC-25 aircraft. It is an original source document for many areas but, for efficacy, restates information found in Flight Crew Manuals (FCM), flight information publications (FLIP), and other Air Force directives. When guidance in this AFI conflicts with another basic/source document, that document takes precedence. For matters where this AFI is the source document, waiver authority is In Accordance With (IAW) paragraph 1.4 of this AFI. For matters where this AFI repeats information in another document, follow waiver authority outlined in the basic/source document. **Note:** FCM is a generic term and will be used to refer to applicable aircraft specific Technical Orders (TO) and manufacturer provided publications.

1.1.2. Unit commanders and agency directors involved with or supporting C-9, C-20, C-37, C-32, C-40 and VC-25 operations shall ensure this AFI is available to appropriate personnel. Transportation and base operations passenger manifesting agencies will maintain a current copy of this AFI.

1.2. Applicability. This AFI applies to individuals, aircrews, units and agencies operating C-9, C-20, C-37, C-32, C-40 and VC-25 aircraft performing Special Airlift Missions (SAM), Command Support Missions (CSM), Distinguished Visitor Guard (DVG) Missions, Distinguished Visitor (DV) Missions including Presidential Airlift Missions tasked through the White House Military Office (WHMO), and DV Missions tasked through the Office of Assistant Vice Chief of Staff (HQ USAF/CVAM), Theater Air Mobility Divisions (AMD) and the Joint Operational Support Airlift Center (JOSAC). These operational missions will be referred to collectively as VIP Missions in this Instruction. Additionally, this AFI applies to training, i.e. non-operational missions.

1.3. Key Words Explained.

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

1.3.2. "Should" indicates 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., considered essential to emphasize.

1.3.5. **"CAUTION"** indicates operating procedures, techniques, etc., which could result in damage to equipment if not carefully followed.

1.3.6. **"WARNING"** indicates operating procedures, techniques, etc., which could result in personal injury or loss of life if not carefully followed.

1.4. Deviations and Waivers. Do not deviate from policies in this AFI except when the situation demands immediate action to ensure safety. The Pilot in Command (PIC) is vested with ultimate mission authority and responsible for each course-of-action taken.

1.4.1. Deviations. The PIC shall report deviations or exceptions taken without a waiver through command channels to their Chief, MAJCOM Stan/Eval who in turn shall notify Chief, AMC Stan/Eval (lead command) as appropriate for follow-on action.

1.4.2. Waivers. Unless otherwise directed or provided for in this Instruction, waiver authority for the contents of this Instruction shall be the MAJCOM/A3 with mission execution authority and the Presidential Airlift Group Commander (PAG/CC) shall be the waiver authority for Presidential Airlift Missions. Waiver authority for contingency missions will be listed in the Operations Order (OPORD)/Air Tasking Order (ATO). Long term waivers coordinated by the lead command (AMC) will be maintained on the AMC/A3V website. ***EXCEPTION:*** AMC/CC hereby grants waiver authority for operational missions to the Component Numbered Air Force (C-NAF) Commander with mission execution authority for AMC-assigned forces. In the temporary absence or unavailability of the C-NAF Commander, waiver authority for operational missions may be delegated to the C-NAF vice-commander; however, no further delegation or re-delegation is permitted. For AMC, in the event the 18 AF/CC (AMC's C-NAF) is absent or unavailable, waiver authority for operational missions may be delegated to 18AF/CV; however, no further delegation or re-delegation is permitted. HQ AMC/A3 retains waiver authority for training missions for AMC-assigned forces.

1.4.2. **(89AW)** Waiver authority for this unit supplement is the 89 OG/CC or PAG/CC, unless otherwise stated. Process waiver requests to this supplement through 89 OG Current Operations (89 OG/OGO). PAG waivers are processed through the PAG/CC. Report deviations to any provision of this AFI and its unit supplement to 89 OG/OGV through 89 OG/OGO.

1.4.2.1. Due to the unique nature of VIP Missions, waiver authority for specific areas of this Instruction is delegated to the unit wing, group (or equivalent), or squadron commander. If a waiver is approved, the waiver authority will inform the next higher level in the chain of command and the MAJCOM Stan/Eval with mission execution authority in a timely manner.

1.4.2.2. Areas in which waiver authority is delegated at or below wing level are specifically annotated in this Instruction.

1.4.2.3. Nothing in this Instruction shall be interpreted to prohibit a commander from withholding waiver authority, to include waiver authority delegated by this Instruction.

1.4.3. Waiver reporting. Waiver requests for missions in execution will be coordinated with the MAJCOM/A3 having mission execution authority. PICs must report all waiver requests to unit operations group stan/eval (OG/OGV or equivalent) through applicable C2 centers. Informational copies of waiver requests and approvals will be sent to the AFRC Command Center (AFRC/A3OC) or the Air National Guard Command Center (NGB/A3XC) for aircraft operated by each respective Air Reserve Component.

1.5. Supplemental Procedures. This AFI is a basic directive. Each user MAJCOM or operational theater may supplement this AFI according to AFPD 11-2, *Aircraft Rules and Procedures*, and AFI 33-360, *Publications and Forms Management*. Stipulate unique MAJCOM procedures (shall not be less restrictive than this basic document) and publish MAJCOM/A3-approved permanent waivers in the MAJCOM supplement.

1.5.1. Combined Command Operations. Plan and conduct all operations that include forces from multiple MAJCOMs using provisions in this AFI. Do not assume or expect aircrews to perform MAJCOM/Theater unique procedures without owning MAJCOM/A3 approval and advance training. For additional guidance, refer to paragraph 3.15 of this AFI.

1.5.2. Coordination Process. Forward MAJCOM-approved supplements (attach AF Form 673, *Air Force Publication/Form Action Request*) to MAJCOM Stan/Eval. For AMC-approved supplements, forward to HQ AMC/A3V, 402 Scott Dr., Unit 3A1, Scott AFB IL, 62225-5302. Chief, AMC Stan/Eval shall facilitate the HQ AMC/A3 and HQ Air Force Flight Standards Agency (AFFSA)/A3OF for approval.

1.6. Local Supplement Coordination Process. Operations Group Commanders (OG/CCs) shall define local supplements to this AFI. OG/CCs shall obtain approval from Numbered Air Force (NAF), if applicable, and MAJCOM prior to publishing a supplement. Send an electronic copy of the approved supplement to HQ AMC/A3V (as Lead Command), NAF/A3 (if applicable), and MAJCOM/A3.

1.6.1. **(Added-89AW)** Unless specifically stated otherwise, all 89 AW guidance published in this unit supplement applies only to aircrews executing missions tasked to the 89 OG. If unit supplemented guidance also applies to PAG aircrews executing PAG missions, it will be specifically stated (ex. This guidance also applies to PAG aircrews flying PAG missions).

1.7. Requisition and Distribution Procedures. Unit commanders may provide copies to aircrew members and associated support personnel.

1.8. Improvement Recommendations and Review. Send comments and suggested improvements to this instruction on an AF Form 847, *Recommendation for Change of Publication*, through channels to HQ AMC/A3V, 402 Scott Drive Unit 3A1, Scott AFB IL, 62225-5302 IAW procedures in AFI 11-215, *USAF Flight Manuals Program (FMP)* and MAJCOM Supplement.

1.9. Definitions. Find explanations or definitions of terms and abbreviations commonly used in the aviation community in Code of Federal Regulations (CFR) Title 14, *Aeronautics and Space*, chapter 1, part 1; *Department of Defense* (*DoD) Flight Information Publication, General Planning (GP)*, chapter 2; and Joint Pub 102, *The DoD Dictionary of Military and Associated Terms*. See Attachment 1 of this AFI for common terms used herein.

1.10. Aircrew Operational Reports. The reporting requirements in this instruction are exempt from licensing IAW paragraph 2.11.10 of AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information.*

Chapter 2

COMMAND AND CONTROL

2.1. General. AMC, USAFE, PACAF, AFRC and the ANG command VIP airlift forces through their respective C2 staffs, Theater AMDs, AFRC/A3OC, NGB/A3XE and unit C2 staffs. A unit C2 staff [Wing Command Post (CP), Current Operations or Squadron Operations Centers (SOCs)] serves as the 24-hour liaison between PICs and the mission tasking authority.

2.2. Mission Execution Authority. Headquarters commanders with command authority over Mobility Air Force (MAF) resources hold mission execution authority for directed missions. Commanders with mission execution authority formulate plans, allocate assets, and approve missions through a local command post or C2 staff. OG/CCs serve as mission execution authority for local training missions and may approve transition training on positioning/de-positioning legs in coordination with the appropriate office (CVAM, AMD, MAJCOM/A3, NGB/A3, WHMO, etc). The PIC will execute missions operating outside normal communication channels (use last known mission orders or best course of action).

2.2.1. AMC. All active duty operational units, including the Presidential Airlift Group (PAG) (part of the 89th Airlift Wing (89 AW)), are aligned under 18 AF. CVAM is responsible for tasking and scheduling CONUS-based VIP Aircraft other than Presidential Aircraft. All requirements involving movement of VIP Aircraft are coordinated with HQ USAF/CVAM, through unit C2 staff. Unit C2 staff serve as the single point-of-contact (POC) within the wing for mission assignments from HQ USAF/CVAM. Unit Current Operations or SOC provide support to the wing commander to ensure missions are planned and executed as scheduled. During the mission planning phase, unit C2 staff serve as liaison between the PIC and CVAM. During the execution phase, mission changes are passed from the on-board contact to the PIC, who will assess impact to the crew (crew rest, crew duty day, weather, airfield suitability, etc.). PIC will forward the request to unit C2, then to CVAM for approval. PIC must ensure the on-board contact is aware that final approval is from CVAM.

2.2.2. USAFE/PACAF. Tasking and execution approval will be IAW command/local supplements.

2.2.3. ANG/AFRC. Mission validation from HQ USAF/CVAM will be received through NGB/A3XC and AFRC/A3OO for all ANG and AFRC aircraft covered by this instruction.

2.2.4. PAG/Presidential Support. WHMO is responsible for tasking Presidential Aircraft. PAG/CC serves as mission execution authority for all missions conducted on Presidential Aircraft. Non-operational PAG flights that are “atypical” in any respect, including those that have any unique aspects or that may attract public or media interest, concern, or criticism, must be reported at least ten days in advance, if feasible, through the AMC chain of command and approved by AMC/CC or AMC/CV following coordination with AMC/A3, PA and JA. Details concerning routine non-operational PAG flights (flights that are not “atypical” in any respect) will be reported to 89 AW/CC prior to the mission.

2.2.5. Off-Station Trainer (OST). The wing commander (WG/CC) is mission approval authority for unit OSTs (may be delegated to the OG/CC or equivalent). PAG/CC is approval authority for OSTs conducted on Presidential aircraft. Commanders will carefully

review proposed OST itineraries to weigh costs/benefits and minimize impact and maximize benefit to the unit's aircrew training program. Additionally, the OG/CC can authorize space available seating commensurate with training/mission requirements on non-Presidential Aircraft. Forward approved OST itineraries to the appropriate office (AMD, MAJCOM/A3T, NGB/A3XE, AF/CVAM, or WHMO) before mission departure. PAG/CC will forward itineraries to both the 89AW/CC and DepDirWHMO. ***EXCEPTION:*** Approval authority for AFRC OSTs to other than approved local training bases is AFRC/A3O.

2.2.5. **(89AW)** 89 AW/CC is the approval authority for OCONUS OSTs. 89 OG/CC is the approval authority for CONUS-only OST requests and pre-coordinated OCONUS OSTs (see for an example of a pre-coor

2.2.5.1. **(Added-89AW)** Forward all 1 AS or 99 AS OST requests to 89 OG/OGO for processing and 89 OG/CC approval.

2.2.5.2. **(Added-89AW)** Once approved, any RON changes during an OST must be approved by the 89 OG/CC. Any intermediate stop changes must be approved by the unit SQ/CC. Coordinate all itinerary changes through 89 OG/OGO.

2.2.5.3. **(Added-89AW)** Pre-coordinated OCONUS OST. provides an example flight profile for an OCONUS OST. 89 OSS/OST maintains a listing of approved, pre-coordinated OCONUS OST profiles. Day 1 simulates the first leg of the majority of 89 OG East bound trips, providing familiarity with East and West bound procedures. IAW paragraph 2.2.5.1., units are still required to request approval for these OSTs through 89 OG/OGO. The following paragraphs outline the training that may be accomplished on this OST; any additional

2.2.5.3.1. **(Added-89AW)** Pilot. NATS, MNPS, ACARs, CPDLC, ADS, Dip Clearance, SELCAL, oceanic plotting, unfamiliar field transition.

2.2.5.3.2. **(Added-89AW)** Flight Engineer. Enroute servicing, RON procedures.

2.2.5.3.3. **(Added-89AW)** Flight Attendant. Meal/snack service, customs, food preservation, clean-up.

2.2.5.3.4. **(Added-89AW)** Communication Systems Operator. Various satellite coverage areas, Corporate Card.

2.3. Pilot in Command (PIC) Responsibility and Authority. SQ/CCs shall designate an aircraft commander (AC), instructor pilot (IP), or evaluator pilot (EP) as the PIC for all flights on a flight authorization form IAW AFI 11-401, *Aviation Management*, and applicable supplements. This includes AC upgrade candidates on an Operational Mission Evaluation (OME). An unqualified or non-mission ready (NMR) pilot may not be designated as PIC. PICs are:

2.3.1. In command of all persons aboard the aircraft.

2.3.2. Vested with authority to accomplish the assigned mission. The PIC shall limit mission events to those authorized in the mission tasking without first receiving approval of the unit OG/CC and mission execution authority.

2.3.3. Final mission authority and will make decisions not assigned to a higher authority.

2.3.4. Final authority for requesting or accepting crew or mission waivers.

2.3.5. Responsible for passing mission progress reports daily to C2 agents. PICs will inform C2 agents of factors that may impact mission accomplishment. When transiting a stop without a C2 agent, the PIC shall enter mission information into the C2 system by the most expeditious means available. PICs will establish a POC with the appropriate C2 agent prior to entering crew rest. Local C2 agents are responsible for coordinating mission support requirements on the PIC's behalf.

2.3.5.1. **(Added-89AW)** During mission execution, PICs will coordinate with 89 OG/OGO for all issues that could potentially impact mission accomplishment or the aircrew's ability to accommodate a party requirement or request. Timely information is critical to keeping 89 AW leadership channels informed and advised of potential issues so they have enough time to assist if necessary. For the purpose of C2 communications, mission execution begins when the aircrew shows for the mission.

2.3.5.2. **(Added-89AW)** Do not pass mission related information to TACC without permission from wing leadership. If TACC contacts the aircrew, while on a mission, refer them to 89 OG/OGO. Contact the OGO Duty Officer to report the incident. The OGO Duty Officer is available 24/7 through the Andrews AFB CP.

2.3.5.3. **(Added-89AW)** See paragraphs 8.15. to 8.16. for expanded HOTREP and SAP SITREP guidance.

2.3.6. Responsible for interaction between aircrew members, mission support personnel, and passengers.

2.3.7. Responsible for the welfare of aircrew members, Mission Essential Personnel (MEP) and passengers.

2.3.8. Responsible for the safe, comfortable, and reliable accomplishment of the mission. It is imperative that the aircrew notify the PIC of all issues that may affect the mission. Aircrews are empowered to make decisions for safety at any time, then notify the PIC of actions taken.

2.4. Mission Clearance Decision. The PIC has final responsibility for safe conduct of the mission and possesses full authority for all mission operational decisions. Conduct all flights with the priorities of **SAFETY** *first*, passenger **COMFORT** *second*, and schedule **RELIABILITY** *third*.

2.4.1. Mission Confirmation. Prior to the first leg of each mission, the PIC will review the mission itinerary, landing locations, and other applicable mission requirements with the on-board contact. Any itinerary discrepancies must be resolved before departure with the C2 agency and mission execution authority through the appropriate C2 channels.

2.4.1. **(89AW)** Thorough pre-mission planning while a mission is still TENTATIVE may highlight suitability and/or timing issues. PICs will pass all requests for itinerary changes to CVAM through the 89 OSS/OSOF Mission Operations Duty Officer (MODO) for overseas missions and the squadron SOC for CONUS missions. As soon as possible after a mission is CONFIRMED in Avisource, review the complete mission itinerary. If additional problems are discovered, notify the SOC or the 89 OSS/OSOF (Mission Ops) mission planner assigned to the mission, as soon as possible. Mission closeout occurs when the mission is finalized between CVAM, 89 OG/OGO, and the squadron SOC on the last duty day prior to scheduled

departure. Changes prior to mission closeout are coordinated by 89 OSS/OSOF or the SOC. After mission closeout, all mission changes are coordinated and approved by CVAM through 89 OG/OGO.

2.4.2. Reroutes and Diverts. PICs may reroute or divert their missions if required due to emergency situations, adverse weather or other unforeseen circumstances. Attempt to coordinate mission diversions in advance with the C2 agency, tasking agency, and dispatch function (if applicable). Before directing an aircraft to an alternate airfield, the C2 agency should ensure the PIC is provided existing and forecast weather, Notice to Airmen (NOTAM), Airfield Suitability and Restriction Report (ASRR) information and airfield security/Phoenix Raven requirements. If the planned alternate becomes unsuitable while en route, the PIC will coordinate with the C2 agency for other suitable alternates. The C2 agency will coordinate with customs and ground service agencies to prepare for arrival. The PIC is the final authority on the suitability of an alternate airfield.

2.4.3. Mission Changes. Reroutes or other itinerary changes requested by the DV while en route must be approved by the C2 agency and the mission tasking authority. If the itinerary changes by 1 hour or more, an itinerary change message must be coordinated by the aircrew/C2 to all affected agencies. Itinerary changes of less than 1 hour that affect diplomatic clearance windows must also be coordinated with affected agencies.

2.4.3. **(89AW)** Mission Changes. The PAG/CC will determine the time-line, C2 method, and agency to affect an itinerary change for all PAG, White House missions. The PAG/CC will also determine how an itinerary change will affect a diplomatic clearance, and will coordinate as necessary to keep the mission on a new schedule.

2.4.4. Divert Coordination. In the event of an airborne diversion, the PIC will coordinate all required clearances, aircraft servicing requirements and aircraft security arrangements. Contract Dispatch/Flight Management, Unit CP, SOC, AMD will assist the PIC when requested. The PIC will also provide DV and party with all necessary assistance, including obtaining transportation and lodging.

2.5. Operational C2 Reporting. The PIC or Communications Systems Operator (CSO) will report standard Command MAF movement information (departure, arrival, or diversion) to appropriate C2 agencies. Onboard communication/data equipment and Communications Security (COMSEC)/OPORD requirements may dictate messaging methods. The PIC will establish a POC with the local C2 agency, U.S. Embassy, U.S. Consulate, or Fixed Base Operator (FBO) before entering crew rest.

2.5.1. Unusual Circumstances. PICs will immediately notify the C2 agency and tasking agency of any unusual occurrences. This includes maintenance problems, aircraft malfunctions, security and operational concerns. PICs should not wait until arrival to send message if in flight communications are available. However, non-secure communications media should not be used to transmit sensitive information.

2.5.1. **(89AW)** Unusual Circumstances. 89 OG PICs will immediately notify 89 OG/OGO of any unusual occurrences. See chapter 8 for HOTREP reporting guidance.

2.5.2. Crew Location. Notify the C2 agency of aircrew location and telephone number during each crew rest and any time the crew will leave the immediate vicinity of the aircraft.

2.5.3. Commercial Dispatch Services (CDS)/Integrated Flight Management (IFM) Controlled Missions. The Dispatcher/Flight Managers (FM) are a C2 conduit authorized for VIP missions. Contract Dispatchers/Flight Managers provide the PIC with flight plans, flight following, flight support and act as a C2 link to the C2 agency and Air Traffic Control (ATC). Communication is accomplished via digital data-link, radio, and landline connectivity between MAJCOM C2 with mission execution authority and the aircraft. For critical C2 communications, voice communications via Satellite Communications (SATCOM), Defense Switched Network (DSN), High Frequency (HF) communications, etc. are the primary method. The C2 agency will determine COMSEC requirements for CLOSE HOLD missions.

2.5.4. HF Communications. HF is the primary means of access to the military worldwide C2 network. During transoceanic flights, pilots will set one HF radio to the ATC frequency and use Selective Calling (SELCAL) if available. The second HF radio should be operated in Automatic Link Establishment (ALE) mode, if available, to support voice contacts between the PIC and MAJCOM C2 with mission execution authority. Frequencies for GLOBAL HF stations are listed in the Flight Information Handbook (FIH). ***NOTE:*** Run the ALE system in the silent mode during flights where pilots use the HF radio system for communication with ATC.

2.5.5. L-Band SATCOM. L-Band SATCOM provides a worldwide communications capability (secondary to HF). PICs may use L-band SATCOM for routine unclassified communication. Due to large volume of traffic, MAJCOM C2 with mission execution authority will only forward L-Band messages when the PIC specifically requests this service. In this case, the L-Band message to MAJCOM C2 must include, "Relay, no C2 agent (or negative HF contact) at (include station name)" in the message remarks. Limit SATCOM communications to operational traffic. Turn the transceiver and laptop on during preflight and leave it configured to transmit and receive messages until aircraft power down at destination.

2.5.5.1. L-Band SATCOM Messages and Advisories. The PIC, or designee, will transmit an on-station message at the beginning of each crew duty day. The PIC will transmit an arrival advisory to the arrival C2 agency. The PIC will transmit (free-text messages) mission delay, in-flight refuel, and on/off-load reports. ***NOTE:*** For missions operating through sensitive or classified locations disable the Global Positioning System (GPS) position-reporting feature of the system.

2.5.5.2. Computer management. OG/CC shall develop procedures for management of flight crew mission computers at home station. Aircrews will not leave laptop computers in an unsecured location.

2.5.6. AERO-H/I. The AERO-H/I satellite voice system should be used as an alternate means of communication for aircraft with ALE/L-Band SATCOM messaging capability between the aircraft, C2 agencies, and certain ATC units. AERO-H/I voice is a backup for the controller to pilot datalink system (CPDLC) and C2 communications (datalink and VHF/HF voice). Certain C2 agencies and ATC units may be selected in the AERO-H/I directory.

2.5.6.1. AERO-H/I voice may not be used for routine communications with ATC or for personal use. Also, due to its high cost, other communications options should be

considered before using the satellite voice. It should be used for ATC communication only as a backup to CPDLC or as otherwise instructed. AERO-H/I voice may be required as a backup to CPDLC on certain routes.

2.5.7. DV Messages. On aircraft without CSOs, airborne unclassified messages originated by DV passengers may be transmitted at the discretion of the PIC.

2.5. (89AW) CSOs will report actual block-out and block-in times to Andrews Command Post. Pass estimated block-in times to appropriate personnel at the next destination.

2.6. Mission Commander Responsibilities. For complex missions and multi-sortie events, OG/CC's (or equivalent) may direct designation of a mission commander to act as overall authority for mission execution. When so designated, the mission commander exercises command authority over all mission personnel. Mission commanders will inform the appropriate mission execution authority through the appropriate C2 staffs of any factors that may affect mission accomplishment.

2.6.1. Mission Planning. Unit C2 staff serve as the single POC within the wing for mission assignments from tasking agency. Unit Mission Operations, Current Operations and unit SOC ensure missions are planned and coordinated with the tasking, dispatch and flight management agencies, as applicable. During the mission planning phase, these agencies are the link between the PIC, C2 agency and MAJCOM with mission execution authority.

2.6.1.1. For all multi-ship operations, (e.g., funeral runs and summits), OG/CC will ensure, through the unit C2, that an appropriate level of ground/flight supervision is provided for the entire mission. Emphasis should be placed on who is the overall mission commander for the operation.

2.7. Not Used.

2.7.1. **(Added-89AW)** Enlisted Aircrew Coordinator (EAC). SOCs will designate an EAC on all mission flight orders. The EAC is responsible to the PIC for enlisted aircrew while at enroute stops. Flight engineer, crew chiefs, communications systems operators, flight attendants, and aircraft security NCOs (RAVEN) will coordinate their activities with the EAC. This will prevent preflight/post-flight activities from interfering with other aircrew activities, maintenance, or aircraft servicing. During crew rest periods, the EAC is the liaison between the PIC and the enlisted aircrew. The EAC should know enlisted crewmembers whereabouts during crew rest periods and keep them informed of mission changes. If crewmembers plan to be unavailable by telephone, they will arrange periodic check-in with the EAC or PIC.

2.7.2. **(Added-89AW)** Air Force Two Missions (AF2). On AF2 missions, it is imperative that the military aide be able to contact the PIC at all times. This is normally accomplished through the aircraft's ramp telephone or via cell phone. The aircraft RAVEN will monitor the ramp telephone at all times. Minimize use of ramp telephone to allow for inbound calls.

2.7.2.1. **(Added-89AW)** Whenever the aircrew departs the immediate vicinity of the aircraft, the on-duty RAVEN will know how to contact the PIC.

2.7.2.2. **(Added-89AW)** The military aide or the White House Communications Agency (WHCA) trip officer provides the PIC with a list of the local contact telephone numbers

for each stop on the trip. If the PIC cannot locate the military aide at the listed numbers, contact the local White House Signal Switchboard or the local USSS command post.

2.7.2.3. **(Added-89AW)** If the aircraft must be moved after the ramp telephone is installed, inform the WHCA trip representative or the local USSS command post to arrange to move the ramp telephone.

2.7. (89AW) Aircrew Availability. PICs are expected to be reasonably available by telephone throughout the mission. If this is not possible, make every effort to ensure 89 OG/OGO and Andrews Command Post are aware that telephone contact may be not be possible. PICs must be in contact with the party during ground times to allow for timely mission changes.

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.

2.9. Close Watch Missions. All VIP Missions are Close Watch missions and receive special C2 attention. PICs will promptly notify the appropriate C2 agency of delays, aborts, or other events that affect on-time departure and provide the local C2 (CP, flight management, dispatch, etc.) the estimated time in commission (ETIC), planned Estimated Time of Departure (ETD), and Estimated Time of Arrival (ETA) as soon as safety allows. Local C2 agent will notify the C2 agency and mission executionauthority when delays are anticipated or occur.

2.10. Law Enforcement Support. It is the policy of the DoD to cooperate with civilian law enforcement officials to the maximum extent practicable. AFI 10-801, *Assistance to Civilian Law Enforcement Agencies*, incorporates the appropriate directive and provides uniform policies and procedures to be followed concerning support provided to federal, state, and local civilian law enforcement agencies. It establishes specific limitations and restrictions on the use of Air Force personnel, equipment, facilities, and services by civilian law enforcement organizations. Report all requests for assistance and coordinate all requests from civilian law enforcement authorities through C2 channels.

2.11. Area of Responsibility (AOR) Missions.

Chapter 3

AIRCREW MANAGEMENT

3.1. General. This chapter provides guiding principles to form/manage mobility aircrews. Commanders at all levels shall follow this policy to form aircrews and to develop aircrew-related work/rest schedules that optimize efficiency of mobility forces engaged in worldwide operations.

3.2. Crew Complement. Minimum crew complement for basic and augmented flight duty periods (FDP) are in Table 3.1.

3.2. (89AW)4. 1.2. (Added) On AF2 missions, the flight attendant complement must include at least one qualified AF2 flight attendant.

Table 3.1. Minimum Crew Complement.

Crew Position	Basic					Augmented		
	C-9	**C-20/37**	**C-32**	**C-40B/C**	**VC-25**	**C-32**	**C-40B/C**	**VC-25**
Aircraft Commander	1	1	1	1	1	1	1	2
Pilot	1	1	1	1	1	2	2	1
Navigator *(Note 1)*					1			2
Flight Engineer (FE)		1 (*Note 10*)			2 *(Note 8)*			2 *(Note 9)*
Communications System Operator (CSO) *(Note 1)*	1 *(Note 11)*	1	2 *(Note 2)*	2 *(Notes 2 & 3)*	4	2	2 *(Notes 2 & 3)*	4
Flight Attendant (FA) *(Notes 1 & 7)*	3 *(Note5)*	1	5 (*Note 4*)	3 (*Note 5*)	10	6*(Note 6)*	4 *(Note 6)*	10
Flying Crew Chief (FCC) *(Note 1)*	1		2 *(Note 12)*	2 *(Note 12)*	1	2 *(Note 12)*	2 *(Note 12)*	1

NOTES:

(1) Not required for local training missions. CSO(s) and FA(s) not required on OSTs and depot inputs/outputs. OG/CC may waive FCC(s) for stopover flights if equivalent maintenance support exists at stopover locations. FA(s) will be on board when passengers are carried. ***EXCEPTION:*** With SQ/CC approval, FCCs/MEPs (to include civilian maintenance personnel) familiar with egress procedures may be carried without FA(s) on board.

(2) Minimum 1 MK and 1 FK or 1 IK and 2 UKs. Unit commanders will weigh the students' prior experience and proficiency when scheduling 1 IK with 2 UKs. OG/CC may waive CSO requirements to 1 MK.

(3) No CSOs are required for the C-40C.(4) Normal basic crew is 5 (minimum of 3 MTs and 2 FTs). One FA may be unqualified as long as an instructor FA is providing training. OG/CC may waive FA requirements to 3 (minimum of 1 MT and 2 FTs) for a basic crew if there are no meal requirements.

(5) Normal basic crew is 3 (minimum of 1 MT and 2 FTs). One FA may be unqualified as long as an instructor FA is providing training. OG/CC may waive FA requirements to 2

(minimum of 1 MT and 1 FT) for a basic crew if there are no meal requirements.

(6) One FA may be unqualified as long as an instructor FA is providing training.

(7) SQ/CC may increase the number of FAs depending on mission requirements.

(8) One must be first flight engineer qualified or higher.

(9) Both must be first flight engineer qualified or higher.

(10) For locals, SQ/DO may authorize a fully qualified pilot to occupy the flight engineer station during any phase of operation. In this case, a qualified FE (FF minimum) will perform preflight duties and need not fly on the local.

(11) CSOs are on an as-needed basis for 932 AW C-9 missions as determined by 932 AW and CVAM.

(12) For C-32 and C-40B/C, the minimum required is 1 Lead FCC and 1 Assistant FCC.

EXCEPTION: The PAG/CC will determine crew complement on Presidential Airlift Missions.

3.2.1. Augmented crews are required when a mission cannot be completed within a basic FDP. Augmentees must be current and qualified in the aircraft. ***EXCEPTION:*** Crewmembers in mission qualification training under the supervision of an instructor may count for augmentation purposes. For pilots, this is limited to FP Phase II training, provided the FP is current and qualified. In all other cases, NMR pilots requiring instructor supervision may augment provided that of the other two pilots, one is a fully qualified, Mission Ready (MR) IP and the other is a fully qualified, MR MP. For an unqualified CSO or FA to act as an augmenting crewmember, OG/CC or equivalent waiver is required. In all cases, the crew must be augmented from the start of the duty period. Reference paragraph 1.4.2 for the waiver authority for additional crewmembers to join the mission en route for augmentation. If augmentees are added to the crew, the crew's FDP will be computed based on the FDP of the most limited person. ***NOTE:*** C-9, C-20 and C-37 aircraft are not authorized an augmented FDP.

3.2.2. For all passenger missions, do not schedule crew complements that exceed the maximum seating capacity specified for a particular aircraft configuration. If not specified, do not schedule crewmembers that will displace scheduled passengers. Exceptions to this policy are granted by unit C2 in coordination with mission tasking authority concurrence. (Note: C-20/C-37 passenger loads are limited to 12 passengers unless otherwise approved by mission tasking authority). ANG and AFRC – coordinate passenger manifests with NGB/A3XC, AFRC/A3OO, CVAM or JOSAC, as appropriate. USAFE/PACAF – coordinate passenger manifests with AMD.

3.2.2.1. FA/CSO Crew Complements on Organic AMC DV (KC-10/C-17/KC-135) missions. For planning, the normal FA/CSO crew complement for basic FDP organic AMC missions will include 3 FAs and, if required, 2 CSOs. The crew complement for augmented FDP organic AMC missions will consist of 3 FAs and, if required, 2 CSOs. At least one FA will be MT qualified on an aircraft and, if required, at least one CSO will be MK qualified. All others will be at least FT or FK qualified. OG/CC, through unit

C2, will determine the actual FA/CSO crew complement (increased or decreased) based upon passenger loads, configuration, and mission requirements. OG/CC will maintain waiver authority over CSO/FA crew complements on all organic AMC missions. FAs/CSOs will follow Crew Duty time (CDT)/FDP and scheduling restrictions IAW this instruction.

3.2.2.2. **(Added-89AW)** Additional Crewmembers on C-20/C-37 Missions. SQ/DO or designated representative is authorized to schedule one additional aircrew member on all missions with less than 10 planned passengers. Use of additional crewmembers requires CVAM approval. Coordinate seat requests for more than one additional crewmember through 89 OG/OGO.

3.2.3. The PAG/CC will determine crew complement on Presidential Airlift Missions.

3.2.4. **(Added-89AW)** Aircrew Complement for Specific 89 AW Missions. Specific aircrew qualifications may be required for missions that have unique requirements, involve unusual hazards, or require previous experience for safe execution. Top 5 missions are those missions supporting VPOTUS, SECSTATE, SECDEF, CJCS, and FLOTUS. Use the following guidance.

3.2.4.1. **(Added-89AW)** 1 AS Aircrew Manning Policy. Exceptions must be approved by the SQ/DO and briefed to the SQ/CC prior to flight authorization approval.

3.2.4.1.1. **(Added-89AW)** For DV1, AF2 and FLOTUS missions, an IP will be in command. All other aircrew positions will be manned by at least instructor qualified aircrew members.

3.2.4.1.2. **(Added-89AW)** On AF2 missions, the flight attendant complement must include one qualified AF2 flight attendant.

3.2.4.1.3. **(Added-89AW)** If a mission is scheduled to support a senior officer who maintains qualification in the aircraft, an IP will be in command.

3.2.4.2. **(Added-89AW)** 99 AS Aircrew Manning Policy. Exceptions must be approved by the SQ/DO and briefed to the SQ/CC prior to flight authorization approval.

3.2.4.2.1. **(Added-89AW)** For DV1, and all Top 5 missions, the minimum pilot manning will be an IP in command and at least an aircraft commander qualified pilot. All other aircrew positions will be manned by at least instructor qualified aircrew members.

3.2.5. **(Added-89AW)** 89 OG Backup Aircraft and Aircrew Requirements.

3.2.5.1. **(Added-89AW)** All AF1, AF2, SECSTATE, SECDEF, CJCS, FLOTUS, and DV1 missions, and other missions as determined by 89 OG/CC, require a backup aircraft for Andrews AFB departures. To the maximum extent possible, the backup will be the same type as the primary aircraft. Backup aircraft will be upgraded to appropriate security status (if required) 2 hours prior to scheduled departure of the primary mission aircraft. The fuel load will be specified by 89 OG/OGO. Deadhead legs are not required to have backup aircraft assigned.

3.2.5.2. **(Added-89AW)** If the dedicated backup aircraft is the same type as the primary mission aircraft, the squadron will assign flight engineers, flight attendants, and CSOs to

report a minimum of two hours prior to the scheduled mission departure and preflight the backup. Preflight crews will remain at the backup aircraft until the mission departs and they are released by the PIC through command post. On C-32/C-40 backups, a pilot will preflight the airplane but is not required to remain at the jet.

3.2.5.3. **(Added-89AW)** If the dedicated backup is not the same type aircraft as the primary aircraft, the squadron will schedule a complete aircrew (properly uniformed and prepared to assume the mission) to man the backup. Dual qualified crewmembers from the primary aircraft may be used to complete the backup aircrew; however, they are not available to perform backup preflight duties.

3.2.5.4. **(Added-89AW)** Any crewmember will advise 89 OG/OGO immediately whenever problems are encountered that could affect the mission-ready status of the backup.

3.3. Aircrew Qualification. Primary crewmembers or those occupying a primary position during flight, must be qualified (current and valid AF Form 8, *Certificate of Aircrew Evaluation*) or in training for qualification in that crew position. ***EXCEPTION:*** The Chairman of the Joint Chiefs of Staff, the Vice Chairman of the Joint Chiefs of Staff, the Air Force Chief of Staff, the Air Force Vice Chief of Staff, Combatant Commanders, and MAJCOM Commanders, Wing/CC/CV and OG/CC are the only senior officers (O-6 and above) authorized to perform pilot duties on VIP Aircraft. They must be rated Air Force pilots and comply with AFI 11-401.

3.3.1. Unit senior officers completing Senior Officer Qualification course (restricted AF Form 8) or orientation training for a Senior Officer Familiarization flight may occupy a primary crew position when under direct instructor supervision. Refer to AFI 11-401 for procedures and requirements governing senior leader flying.

3.3.2. Crew members who complete the Senior Officer Qualification Course will log "FP/FN" for Flight Authorization Duty Code on the AFTO 781, *ARMS Aircrew/ Mission Flight Data Document.*

3.3.3. Crew members who complete a Senior Officer Familiarization flight will log "OP/ON" for Flight Authorization Duty Code on the AFTO 781, *ARMS Aircrew/ Mission Flight Data Document*.

3.4. Pilots. An IP must supervise non-current or unqualified pilots regaining currency or qualification (direct IP supervision during takeoffs, landings and emergency procedures).

3.4.1. Missions with Passengers. To occupy a pilot's seat with passengers, pilots must have a current AF Form 8 for the Mission Design Series (MDS)-specific aircraft. For takeoff, approach and landing one of the following conditions must be met:

3.4.1.1. Two qualified and current pilots (1 AC or higher, 1 FP or higher) must be at the controls.

3.4.1.1. **(89AW)** Newly upgraded ACs will be scheduled to fly with an experienced AC or above as their copilot, until they have completed 50 hours operational mission experience or five operational missions as the PIC. An experienced AC is defined as one who has attained the 50-hour experience requirement or has completed five operational missions in command.

3.4.1.1.1. **(Added-89AW)** C-20/C-37. First pilots (FP) will be scheduled to fly with an IP or EP on OCONUS missions. C-20/C-37 FPs can be scheduled to fly with a MP on CONUS/non-Top 5 missions.

3.4.1.1.2. **(Added-89AW)** C-32/C-40. FPs can be scheduled on a basic aircrew (two pilots) with a MP on CONUS/non-Top 5 missions.

3.4.1.2. A qualified pilot non-current no more than 60 days for flying currency requirements and an IP providing direct supervision (must be at the controls). AC's regaining currency will be designated PIC.

3.4.1.3. A qualified NMR pilot accomplishing phase II qualification training and an IP providing direct supervision.

3.4.1.4. A qualified AC upgrade candidate on an initial or requalification OME and a qualified pilot (FP or higher) under supervision of a qualified EP must be at the controls (AC upgrade candidates will be designated in command).

3.4.1.5. A basic qualified (valid AF Form 8 in MDS-specific aircraft) senior officer who has completed a Senior Officer Qualification course may occupy either pilot seat under direct IP supervision.

3.4.2. Qualification Training. Initial qualification, requalification, or upgrade training (AC upgrade training allowed) for pilots will not be conducted on missions with passengers onboard. Mission qualification training, OMEs, and line training/development missions may be conducted on missions with passengers onboard only if the individual in training is qualified to the applicable level.

3.4.3. Local Training and Evaluation Missions. Non-current or unqualified pilots may perform crew duties under the supervision of a qualified instructor or examiner. If passengers are carried, paragraph 3.4.1. of this AFI applies.

3.4.4. When unit authorized maintenance specialists and/or civilian contractors are flying in the aircraft for the purpose of conducting in-flight maintenance inspections, including touch-and-go landings, the restrictions in paragraph 3.4.1 of this AFI (concerning pilots with passengers) are waived for these specialists/contractors only. However, the maintenance/contractor personnel should be deplaned after completion of the in-flight inspection.

3.5. Navigators. PAG/CC determines navigator crew complement.

3.6. Flight Engineers, Communications System Operators, Flight Attendants. Any non-current or unqualified crewmembers may be assigned in addition to the minimum complement of qualified and current primary crewmembers. They may perform duties in their designated crew position only under the supervision of a current instructor/examiner qualified in the respective crew position (direct supervision for passenger/DV service, emergency procedures). Non-current or unqualified crewmembers may fill a primary crew position under the supervision of a flight examiner (direct supervision for passenger/DV service, emergency procedures) during flight evaluations IAW AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*. The PIC may direct the instructor or examiner to assume the primary crew position during critical phases of flight or adverse conditions.

3.6.1. **(Added-89AW)** When mission needs dictate flight attendants in excess of Table 3.1. requirements, the 89 OG/CC or PAG/CC may authorize any flight attendant current and qualified in another 89 AW aircraft to serve in addition to the aircrew complement. These persons will not serve as EAC, or perform duties or operate equipment requiring specific aircraft qualification. They will log "XT" time on the AFTO 781.

3.7. Aircrew Management. SQ/CCs and en route C2 agents shall ensure work/rest cycles permit an aircrew adequate time to safely accomplish mission duties and personal time for rest.

3.7.1. Flight Duty Period (FDP). FDP is the period of time starting at mission report time and ending immediately after the aircrew completes the final engine shutdown of the day. SQ/CCs shall form aircrews based on worst-case FDP in the mission directive. Reduce FDP when the autopilot pitch servo fails after departure IAW information below. If the autopilot fails after departure, consider mission requirements and determine the best course of action to preclude further mission delays due to reduced FDP. The best course of action may include diverting to an airfield with maintenance capability. Contact C2, coordinate intentions, and comply with limitations. ***NOTE:*** Failure of the autopilot pitch servo does not require a FDP reduction on the leg the failure is experienced.

3.7.1.1. Basic Crew FDP. The maximum FDP for a basic aircrew is 16 hours (12 hours when the autopilot pitch axis is inoperative). All tactical maneuvers will be accomplished within the first 14 hours of the FDP. Once an aircrew begins a basic FDP, the OG/CC may extend to an augmented FDP provided the composition is adequate for an augmented crew.

3.7.1.1.1. When extended en route ground times, non-optimum routing/winds, weather delays or other extenuating circumstances will increase a basic to an augmented FDP, a PIC with an augmented crew may accept an augmented FDP as long as:

3.7.1.1.1.1. The C2 agent or PIC discovers the extenuating circumstances before the first takeoff of the day.

3.7.1.1.1.2. The PIC verifies all augmenting aircrew members can get adequate rest en route.

3.7.1.1.2. A PIC with a basic crew may seek OG/CC approval to extend the FDP as much as 2 hours to complete a scheduled mission. If mission requirements justify the risk and the PIC is unable to contact the waiver authority, the PIC may extend maximum FDP up to 2 hours. Only use this provision to recover from unscheduled/unplanned en route delays/changes. C2 agents shall not ask PICs to exercise this option. A PIC with a basic crew may seek OG/CC approval to extend the tactical duty day by as much as 2 hours to a maximum of 16 hours.

3.7.1.2. Augmented Crew FDP. Maximum FDP for an augmented aircrew is 24 hours (16 hours when the autopilot pitch axis is inoperative). All tactical maneuvers will be accomplished within the first 18 hours of the FDP. FDP will not be based on crew complement, but rather on mission requirements. Only the pilot portion of the crew is affected by the FDP reduction when the autopilot is inoperative.

3.7.1.2.1. SQ/CCs augment an aircrew when FDP exceeds 16 hours and the mission profile will allow augmenting aircrew members adequate time to rest en route.

3.7.1.2.2. A PIC with an augmented crew may seek OG/CC approval to extend the FDP as much as 2 hours to complete a scheduled mission. If mission requirements justify the risk and the PIC is unable to contact the waiver authority, the PIC may extend maximum FDP up to 2 hours. Only use this provision to recover from unscheduled/unplanned en route delays/changes. C2 agents shall not ask PICs to exercise this option.

3.7.1.3. Not Used.

3.7.1.4. Flight examiners administering evaluations will not exceed an augmented FDP.

3.7.1.5. Training FDP.

3.7.1.5.1. Maximum FDP for training, Functional Check Flight (FCF) and Acceptance Check Flight (ACFs) missions is 16 hours (12 hours when the autopilot is inoperative). Conduct the mission as follows:

3.7.1.5.2. Complete all mission-related events (i.e., FCF/ACF checks, transition events, or tactical events) during the first 12 hours of the FDP.

3.7.1.5.2.1. ANG and AFRC crews may perform mission-related events on local training missions provided their time from start duty does not exceed 16 hours and actual flight duty does not exceed 12 hours.

3.7.1.5.3. Crews may position/de-position to home station or a deployed staging base following training (do not exceed 12 hours when the autopilot is inoperative).

3.7.1.6. Technician Status. CDT and FDP include both military and civilian work and begin when an individual reports for their first duty period (military or civilian). (This does not preclude a civilian from starting a pay period prior to the report for their first duty period, only from showing to perform office duties prior to CDT and FDP.)

3.7.2. Crew Duty Time (CDT). CDT is that period of time an aircrew may perform combined ground/flight duties. For planning purposes, 45 minutes will be used as the time to complete post-FDP duties. Plan the mission so aircrew members may complete post-mission duties within maximum CDT. An aircrew member may perform mission-related duties for other missions when approved by member's home station SQ/CC or equivalent. Maximum CDT is 16+45 hours for a basic aircrew and 24+45 hours for an augmented aircrew. If the option in para 3.7.1.1.2. is exercised, increase the maximum basic CDT by up to 2 hours.

3.7.3. Except as outlined below, CDT/FDP begins 1 hour after aircrew alert notification. SQ/CC or equivalent may task aircrew members to perform other duties before they begin flight-related duties or MAJCOM/A3 with mission execution authority may authorize a C2 agent to alert an aircrew member early. Begin CDT/FDP when the first aircrew member reports for those duties.

3.7.3.1. For Self-alerts, CDT/FDP begins at established showtime. The PIC shall coordinate early individual/crew mission report times with C2 agents. If an early report time is utilized, begin CDT/FDP when the first aircrew member reports for duty.

3.7.3.2. CDT/FDP Extensions. See AFI 11-202, Volume 3, *General Flight Rules*.

3.7.4. Deadhead Time. MAF aircrew members may deadhead for the purpose of positioning or de-positioning to perform a mobility mission or mission support function. Crewmembers may deadhead for a maximum of 24 hours. OG/CC or equivalent may approve crewmembers to deadhead in excess of 24 hours.

3.7.4.1. Current/qualified aircrew members may perform primary aircrew duties after flying in deadhead status provided they do not exceed a basic FDP (FDP starts at report time for deadhead flight).

3.7.4.2. Aircrew members may deadhead after performing primary crew duties, for a maximum of 24 hours from the time the crewmember's FDP began.

3.7.4.3. Crewmembers must have standard pre-departure crew rest prior to deadheading IAW paragraph 3.10.1 and/or 3.10.2.

3.7.5. Aircrew Member Support of Aircraft Generation Activities (Pre-flight, cargo up-/off-load, start, and taxi aircraft). Crew rest is required IAW AFI 11-202V3. The duty day begins when the aircrew member reports for official duties. Maximum crew duty time is 12 hours.

3.8. Scheduling Restrictions (See AFI 11-202V3). IAW AFI 11-202V3, SQ/CCs shall not schedule an aircrew member to fly nor will an aircrew member perform aircrew duties:

3.8.1. When the flight will exceed maximum flying time limitations of AFI 11-202V3.

3.8.2. Within 12 hours of consuming alcoholic beverages (based on scheduled takeoff or ALFA standby force legal for alert [LFA] time, or earliest show time from BRAVO alert) or while impaired by its after effects.

3.8.3. When using nasal sprays to treat symptoms of head congestion existing before flight. An aircrew member may use oxymetazoline or phenylephrine nasal sprays as "get-me-downs" following an unexpected ear or sinus block during flight.

3.9. Counter-Fatigue Management Program.

3.9.1. Aircrew may use medications with prior approval from the flight surgeon (on a voluntary basis following ground testing) that enhance natural rest during off-cycle crew rest periods. This section provides guidance for the use of no-go pills (prescription medications) that help aircrew initiate and maintain restful sleep during off-cycle (desynchronosis) crew rest periods. Fliers on augmented aircrews shall not use no-go pills in flight.

3.9.2. It is USAF policy that aircrew shall never use no-go pills as a first choice counter-fatigue management tool.

3.9.3. Responsibility for counter-fatigue management of aircrew medicinal products rests with the home station Flight Surgeon (FS), OG/CCs (may delegate in writing, the responsibility to, but no lower than, the squadron commander), and with each individual aircrew member. During extended deployments, aircrew members will only obtain no-go pills from a deployed USAF flight surgeon. The deployed flight surgeon shall consult with the home unit medical team prior to dispensing no-go pills to deployed fliers.

3.9.4. Unit Operational Risk Management (ORM) programs shall include use of no-go medication with OG/CC and FS oversight. A basic counter-fatigue ORM model is available for mission planner, OG/CC, crew, and FS use on the AMC/A3V website.

3.9.5. Home station or deployed FS, who has received training on the AMC/SG-approved (lead command) counter-fatigue program, is the POC for no-go prescriptions. Upon request, the FS will advise/assist the local OG/CC to identify missions that may impair crew rest caused by duty day length, departure and arrival times, and other mission timelines.

3.9.6. Aircrew members on Personnel Reliability Program (PRP) status will follow PRP notification procedures in DoD 5210.42/AFMAN 10-3902, *Nuclear Weapons Personnel Reliability Program (PRP)*, if prescribed no-go Pills.

3.9.7. The OG/CC shall establish a system to inform the FS when missions fall into any of the following categories (characterized by the potential for sleep disruptions and therefore candidates for no-go medications):

3.9.7.1. Home station night launch missions greater than four hours duration.

3.9.7.2. Crew rest facilities lacking an optimal sleeping environment (quiet, cooled, and darkened).

3.9.7.3. Off-station missions that are 4 or more time zones from home station.

3.9.7.4. Rotating schedules (stair-stepped flying schedules) with greater than 6-hour flight time duration.

3.9.7.5. Missions that run consistently near a 14-hour (or greater) duty day.

3.9.8. SQ/CC will not schedule crewmembers to fly or perform crew duties within 12 hours of consuming no-go pills [consider Duty Not Including Flying (DNIF)]. ***EXCEPTION:*** SQ/CCs may reduce the 12-hour timeline after consult with a flight surgeon to confirm prescribed no-go pills have short duration effect [6 hours for ambien (zolpidem) and 4 hours for sonata (zaleplon)]. In no case will crewmembers consume a no-go pill on a timeline where they would be under the effect of the medication while they perform aircrew duties (use mission report or LFA time to determine latest time to take no-go medication).

3.9.9. Aircrew member's responsibilities:

3.9.9.1. Aircrew members will complete ground testing for no-go pills and receive flight surgeon clearance prior to using no-go pills in the operational environment.

3.9.9.2. Aircrew members shall not operate equipment within 12-hours after consuming a no-go pill. ***EXCEPTION:*** Commanders may reduce the 12-hour timeline after consult with a flight surgeon to confirm prescribed no-go pills have a short duration effect. In no case will crew members consume no-go pills on a timeline where they would be under the effect of the medication while they operate equipment.

3.9.9.3. Aircrew members shall not take no-go-pills within 12-hours of consuming alcohol.

3.9.9.4. Aircrew members will inform the FS of any other medications (including nutritional supplements and over the counter medications) they are taking so the FS can evaluate potential interactions.

3.9.9.5. Limit use of Restoril and Ambien to a maximum of seven consecutive days and no more than 20 days in a 60-day period.

3.9.9.6. Limit use of Sonata to a maximum of 10 consecutive days and no more than 28 days in a 60-day period.

3.10. Crew Rest/En route Ground Time. Reference paragraph 1.4.2 for the waiver authority to waive any portion of the crew rest period or ground time as needed to meet mission tasking IAW AFI 11-202V3 and MAJCOM Supplements. ***NOTE:*** The Presidential PIC is the waiver authority for Presidential Airlift Missions.

3.10.1. Home-Station Pre-Departure Crew Rest. As a minimum, crewmembers will enter crew rest 12 hours prior to alert time or, when self-alerting, 12 hours prior to reporting time. For missions that will keep aircrew members off station 16 hours or more, unit commanders will enter primary and deadhead aircrew members into pre-departure crew rest 24 hours before the LFA time. Aircrew members deadheading to join a mission via commercial travel are entitled to 24 hours of pre-departure crew rest prior to reporting at the commercial airport. Aircrew members (including those that will be travelling via commercial means prior to joining a mission) may perform limited non-flying duties during the first 12 hours of pre-departure crew rest. OG/CCs may waive any portion of the first 12 hours of pre-departure crew rest. Do not manifest deadhead aircrew members as passengers to deny pre-departure crew rest. ***EXCEPTION:*** AFRC, and ANG aircrews will comply with the provisions in AFI 11-202V3 and appropriate supplement regarding home station pre-departure crew rest.

3.10.2. Off-station/En route Crew Rest. The crew rest period is normally a minimum 12-hour non-duty period before the FDP begins. The minimum en route crew rest period is 12 hours before scheduled report time (for exceptions, reference para 3.10.3. of this AFI). This provides aircrews at least 8 hours to sleep plus 4 hours to travel, relax, and dine.

3.10.2.1. Except during emergencies or as authorized by MAJCOM/A3 with mission execution authority, C2 agents shall not disturb an aircrew member in crew rest. When necessary to interrupt aircrew members' crew rest period, re-enter that aircrew in a subsequent minimum 12 hour crew rest period after they complete official duties.

3.10.2.2. Do not enter aircrew members into crew rest until they complete official post-flight duties. Those duties may include, but are not limited to, refueling, aircraft preparation, aircrew arming, minor maintenance, or mission debriefing.

3.10.3. Off-station/En route Ground Time. A minimum 15 hour ground time between block-in to block-out should normally be planned. OG/CC is waiver authority for missions in planning phase to no less than 12 hours from block-in to block-out. For missions in execution, the PIC may waive to no less than 12 hours from block-in to block-out to accommodate special CVAM/AMD/DV requests. Do not plan consecutive 12 hour-to-12 hour crew rests.

3.10.3.1. Before reducing normal ground time consider mission preparation time and other factors peculiar to the mission. Reference paragraph 1.4.2 for the waiver authority to reduce crew rest to less than 12 hours from block-in to block-out. It is not to be used for DV scheduling convenience.

3.10.3.2. Ground time reduction will ensure aircrew is afforded 8 hours of uninterrupted sleep and adequate time for transportation and meals.

3.10.3.3. PIC will notify the tasking agency and C2 of all modifications to ground time. ***NOTE:*** The Presidential PIC is the waiver authority for Presidential Airlift Missions.

3.10.4. Crew Enhancement Crew Rest (CECR). CECR is not an alternative to a safety-of-flight delay but provides aircrews a means to minimize the adverse effects of a crew alert and report period outside normal duty time. CECR periods should be of minimum duration and are normally used during de-positioning legs. Tasking authorities shall approve PIC requests to delay alert time to normalize the work-rest cycle or increase messing options when mission allows. When requests are disapproved, the C2 agent will inform the PIC of the reason for disapproval.

3.10.5. Post-Mission Crew Rest (PMCR). SQ/CCs shall give aircrew members returning to home base sufficient time to recover from cumulative effects of the mission and tend to personal needs. PMCR begins upon mission termination. For AFRC and ANG units, application of PMCR will be determined by the OG/CC.

3.10.5.1. For missions that keep an aircrew off station 16 or more hours, the SQ/CC shall provide 1 hour (up to 96 hours) PMCR for each 3 hours off-station. Do not enter aircrew members in pre-departure crew rest until the PMCR period expires.

3.10.5.2. PMCR is not applicable to continuing missions and parent MAJCOM/A3 may suspend PMCR during contingency operations.

3.10.5.3. OG/CCs (or equivalents) are PMCR waiver authority.

3.10.6. FCC/RAVEN Work and Rest Plan. For off-station missions, FCCs and RAVENs are responsible to the PIC only. Aircrew crew rest rules do not apply. The PIC will determine how long FCCs and RAVENs can safely perform duties. FCCs and RAVENs must have the opportunity to rest 8 hours in each 24-hour period. For FCC work-rest plan guidance, see AFI 21-101, *Aircraft and Equipment Maintenance Management*, and associated MAJCOM supplements.

3.10.6.1. Unless specified in AFI 21-101 or applicable MAJCOM supplements, FCCs will <u>only</u> perform in flight duties/maintenance when in the opinion of the PIC an <u>emergency</u> condition exists requiring FCC's assistance.

3.10.6.2. Upon arrival at en route locations the PIC will determine how long the FCC can safely perform aircraft maintenance duties on assigned aircraft.

3.10.7. The lead USAF component will publish parent MAJCOM/A3-approved crew rest waivers in the Exercise or Contingency OPORD, Operations Plan (OPLAN), or Concept of Operations (CONOPS).

3.10.8. The Prime Knight program streamlines the process of getting aircrews from aircraft parking ramp into lodging/crew rest. It is only successful when billeting agents receive accurate aircrew/mission information in a timely manner.

3.10.8.1. C2 Agent Responsibilities. C2 agents for MAJCOM with mission execution authority will forward information on the departing aircrew's orders to a POC for the next crew rest location's Prime Knight function.

3.10.8.2. PIC Responsibilities. If departing from a location with a C2 agency, ensure a C2 agent has accurate aircrew/mission information to forward to the next Prime Knight

POC. If departing from a facility without a C2 agency, the PIC will call the next crew rest location Prime Knight POC to pass aircrew/mission information.

3.10.8.3. SQ/CC or designated authenticating official shall ensure Temporary Duty (TDY)/Flight orders clearly indicate the unit fund cite so that the PIC may make Prime Knight reservations in advance.

3.11. Alerting Procedures. Self-alerting procedures are normally used for all VIP Missions. The PIC sets the crew reporting time and location. Home-station departure show time will normally be 2+00 prior to scheduled takeoff time. PICs may change the home station reporting time as necessary if approved by unit Current Operations or SOC. Normally, off-station crew reporting time is 2 hours prior to scheduled departure time. The PIC may establish reporting times as required for mission accomplishment (e.g. scheduled mission departure time changes, increased travel time from hotel to plane, customs, etc).

3.11.1. The latest allowable alert time for an aircrew given a legal for alert time (e.g. as a maintenance back-up) is 6 hours after the expected alert time. The PIC may extend that window to 8 hours when flying as the primary crew or 12 hours when dead-heading. The controlling C2 agency will not ask the PIC to accept more than the 6 hour window.

3.12. Stage Management. VIP missions may require stage crews. When a stage crew is needed due to flight duty period limitations, maintenance difficulties, etc., ensure unit validates the requirement and assists in determining transportation requirements, in place times, mission specific details, etc.

3.13. Standby/Alert Force Duty. C2 agents for MAJCOM with mission execution authority shall task units for Standby Force Duty not later than 18 hours prior to LFA time. This allows crew members 12 hours of pre-standby crew rest and 6 hours for aircraft pre-flight duty. When aircrews are unable to complete all preflight duties within 6 hours of crew show time, provide an additional 12-hour pre-standby crew rest. If MAJCOM C2 agents are unable to provide 18 hours prior notification, the SQ/CC shall place the pre-standby crew in 12 hour crew rest and follow aircraft generation procedures in paragraph 3.7.5 of this AFI to prepare the aircraft for launch. The SQ/CC may keep an aircrew in ALFA/BRAVO status up to 48 hours. After 48 hours, C2 must launch, release, or re-enter aircrew into 12 hour pre-departure crew rest. Reference paragraph 1.4.2 for the waiver authority to extend this period for contingencies. Standby/Alert Force Duty shall not be used as a tool to eliminate pre-departure crew rest.

3.13.1. ALFA Standby Force. When tasked, SQ/CC shall posture an aircraft and aircrew as an ALFA Standby Force able to launch within 1 hour. Once SQ/CC forms an ALFA Standby Force, that aircrew will accomplish follow-on pre-flights required by the FCM. Follow-on pre-flights done during normal waking hours do not interrupt crew rest. Begin CDT/FDP when C2 agent directs the aircrew to launch from crew rest or while performing pre-flight (begin CDT/FDP when the aircrew arrived at the aircraft to do the pre-flight).

3.13.2. BRAVO Standby Force. When tasked, SQ/CC shall posture an aircraft and/or aircrew in BRAVO Standby Force to permit launch within 3 hours (normally 1 hour to show and 2 hours to perform preflight duties). Follow-on pre-flights, if required, interrupt crew rest. Begin CDT/FDP when aircrew shows for duty.

3.13.3. CHARLIE Standby Force. When tasked, SQ/CC shall posture aircrews as a CHARLIE Standby Force ready to enter crew rest within 2 hours. Tasked aircrews will be

LFA 12 hours after entering crew rest. SQ/CC may keep aircrews in CHARLIE status up to 72 hours. After 72 hours, release aircrews from CHARLIE Standby or enter them into 12 hours crew rest for directed mission, training mission, or subsequent Standby Force duty.

3.13.4. Wing Standby/Alert Duty. OG/CC's and unit C2 with mission execution authority determine Standby/alert crew status and initiate scheduling procedures if needed.

3.13.4. **(89AW)** The 99 AS normally maintains a designated C-20/C-37 aircrew on alert for contingency missions at all times, unless otherwise directed by 89 OG/OGO. The C-32/C-40 may also be assigned to an alert commitment. See paragraph 3.13.4.6. for response times.

3.13.4.1. VIP Standby/alert crews should perform standby/alert duty at home. At their discretion, standby/alert crewmembers are permitted to perform up to 4 hours of on-base duties each 24-hour standby/alert period; they are not limited to staying at home for their entire duty period. Although not limited to staying at home, standby/alert aircrew must be capable of proceeding directly to the unit immediately upon notification (response times will be published in unit supplements/OIs). Alert crewmembers quartered off base may be required to perform alert duty on base if travel time between quarters and the alert aircraft jeopardizes alert reaction time. Assigning quarters on base must be coordinated through the squadron operations officer.

3.13.4.2. The primary method of contact will always be the telephone. Ensure alerting organization has an operable and reachable contact phone number. Pagers/beepers will only be used as a backup method of contact.

3.13.4.3. Commanders will not require crewmembers to perform any duties other than standby/alert duty during standby/alert.

3.13.4.4. Crew Rest. Crewmembers are given 12 hours of pre-standby/alert crew rest prior to assuming Alpha or Bravo alert. Crews are legal for mission reporting after pre-standby/alert crew rest. Preflight duties, if required, interrupt crew rest. In no case will a crewmember be placed on Alpha or Bravo standby/alert duty within 12 hours of the previous flight duty period.

3.13.4.5. Schedule standby/alert crews to have the most flexible crew complement for the maximum applicable CDT/FDP. For example: the C-32/C-40 aircraft should schedule an augmented crew for standby/alert. Notify unit C2 and the tasking authority if any part of a crew complement cannot be manned at the applicable manning level.

3.13.4.6. Response Time. Tasking authority (through unit C2), will determine the aircraft alert requirements unless previously specified. Normal alert response time for VIP Aircraft is 2 hours. C-32A and C-40B/C response time is 3 hours. Tasked units will ensure an alert crew is available for that MDS and a backup aircraft if required.

3.13.4.7. Standby/alert crewmembers will not fly local missions while on alert. OG/CC or equivalent (with tasking authority/C2 concurrence) may waive this requirement. VIP or contingency missions may be flown following the local if crew rest and CDT/FDP limitations per this AFI are followed.

3.13.4.8. Crewmembers will not be scheduled for more than 3 consecutive standby/alert duty periods.

3.13.4.9. Reference paragraph 1.4.2 for the waiver authority to waive all or any part of alert crew rest period. Post standby/alert crew rest waiver procedures are the same as PMCR. On completion of standby/alert duty, aircrew members may be dispatched on a mission.

3.13.5. Pre-Departure Standby/alert duty. Standby/alert duty and pre-departure crew rest may be concurrent if notification is provided at least 12 hours prior to mission reporting.

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

3.13.5.2. If an aircrew member is dispatched on a mission, compute the post-mission crew rest time on standby/alert time plus mission time.

3.13.6. Post-Standby/Alert Crew Rest. Aircrew members not dispatched on a mission following Alpha or Bravo standby/alert duty will receive post-mission standby/alert crew rest as follows:

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

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

3.14. Orientation and Incentive Flights. Refer to DoD 4515.13-R, *Air Transportation*, AFI 11-401, *Aviation Management,* and the appropriate MAJCOM supplement.

3.15. Interfly. Interfly is a temporary arrangement between OG/CCs or equivalent to permit current and qualified aircrew members from one unit to perform primary aircrew duties on another unit's aircraft. NGB/A3 has delegated approval authority to wing commanders for active duty/AFRC interfly with ANG. Participating aircrews shall use guidelines established by the lead command or as specified in the OPLAN or CONOPS. Conduct interfly operations as follows:

3.15.1. OG/CC's or equivalent may authorize interfly of aircrews and/or aircraft. Normally interfly should be limited to specific operations, exercises, or special circumstances but may be used to relieve short-term qualified manpower shortfalls, or in Combined Command Operations (ref. paragraph 1.5.1 of this AFI). Long-term interfly arrangements may be found in command-to-command Memorandums of Agreement (MOAs) or Letters of Agreement (LOAs). Associate Reserve units and active duty HQ Staff/MAJCOM Staff evaluation or inspection teams have existing interfly arrangements. Interservice agreements on like aircraft must be approved by parent MAJCOM A3s and other service equivalents.

3.15.2. Interfly is authorized under the following conditions:

3.15.2.1. Aircraft ownership is not transferred.

3.15.2.2. Aircrew shall be current and qualified in the MDS (aircraft and model), as well as unique systems or configuration required to fly the aircraft/mission.

3.15.2.3. Aircrew members will follow operational procedures established by the lead command for the MDS. The Mission Commander or PIC will brief MAJCOM-specific items. The aircraft owning unit will direct appropriate operations instructions and restrictions, as appropriate, for the aircrew members who interfly.

3.16. Mission Essential Personnel. Crewmembers qualified in mobility aircraft are authorized MEP status on any mobility aircraft to accomplish training, evaluation, or pre-/de-position in support of mobility operations. MAJCOM designated crewmembers who are assigned or authorized to accompany the normal crew complement are allowed MEP status.

3.16. (89AW)Mission Essential Personnel. IAW AFI 11-401, paragraph 1.6.2.5.1., the 89 OG/CC or PAG/CC may authorize MEP status to personnel required to perform duties on, or in support of, 89 AW missions. Those who may be eligible for MEP status include, but are not limited to: intelligence personnel, security force personnel, and maintenance personnel. Submit requests for MEP authorization to 89 OG/OGO (***NOTE:*** PAG/CC establishes PAG policy for MEP requests). List MEPs in the Remarks section of the flight authorization.

3.16.1. Crewmembers in MEP status are not authorized to:

3.16.1.1. Displace manifested passengers.

3.16.1.2. Maintain currency and/or log flying time.

3.16.1.3. Travel in this status while on leave. ***EXCEPTION:*** ANG/AFRC Air Technicians may be in a civilian leave status while traveling en route to perform in a military duty status.

3.16.1.4. Travel on VIP Aircraft unless authorized by the tasking authority through the PIC.

3.16.1.5. Travel on Special Assignment Airlift Missions (SAAM) when specifically restricted by the mission directive (mission cut).

3.16.1.6. Travel on Operational Support Airlift (OSA) aircraft unless authorized by the tasking authority through the PIC.

3.16.2. All MEPs require valid travel/flight orders or supporting message authorizing MEP status. OG/CC may authorize MEP status for unit assigned mobility aircrews.

3.16.3. Flight evaluators have priority and will not be displaced by any other MEP. The priority for evaluators is MAJCOM, NAF, group, then squadron level.

3.16.4. MEPs normally travel in the crew compartment. If the number of MEPs desiring travel exceeds the capacity of the crew compartment, the PIC will coordinate with home station C2 before seating MEPs in the passenger compartment. Seats not previously assigned may only be used for MEPs with tasking agency approval.

3.16.4. **(89AW)** MEP duties require direct access to the aircraft or aircrew during ground or flight operations while traveling in passenger status. The PIC will determine seating requirements for those personnel travelling in MEP status.

3.16.5. The PIC or designated representative will brief MEPs on seat assignment, appropriate mission information, emergency procedures including egress, and armed crewmembers.

3.16.6. Additional procedures and policies regarding MEPs are contained in AFI 11-401 and AMCI 11-208. PICs will ensure personnel traveling in this status are properly authorized.

3.17. Mobility Mission Observer Program (MMO) Program. MAJCOM supplements or additional directives may establish programs authorizing senior military and civilian personnel to fly for mobility mission familiarization. For AMC MMO information reference AMCI 11-208.

3.18. (Added-89AW) Special Airlift Program (SAP). SAP guidance and procedures are outlined in several documents outside of this AFI. The following 89 AW guidance applies in addition to those source documents.

3.18.1. **(Added-89AW)** A SAP NCOIC will be appointed for all SAP missions to serve as the focal point for SAP aircrew management. The NCOIC will:

3.18.1.1. **(Added-89AW)** Ensure the SAP aircrew is notified of appropriate uniform requirements prior to the mission departure. FAs/CSOs may fly in flight suits or civilian attire as mission requirements/locations dictate. Additionally, FAs may also fly in FA uniforms.

3.18.1.2. **(Added-89AW)** Validate Go/No-Go IAW unit procedures.

3.18.1.3. **(Added-89AW)** Ensure SAP crewmembers are placed on the flight orders. The flight authorization may contain pen-and-ink changes and will be annotated with the NCOIC certification of Go/No-Go.

3.18.1.4. **(Added-89AW)** Ensure a signed copy of the 781 extract along with a copy of the flight authorization is given to the appropriate individuals when they depart the aircrew.

3.18.1.5. **(Added-89AW)** Confirm the SAP aircrew is included in transportation/billeting arrangements.

3.18.1.6. **(Added-89AW)** Ensure all SAP crewmembers have received appropriate egress training. Just in time egress training may be accomplished and noted in the remarks section of the 781, to include the extract with the phrase "just in time egress training accomplished."

3.18.1.7. **(Added-89AW)** Will notify 89 OG/OGO and the SAP Operations Superintendant if there are any significant itinerary changes.

3.18.1.8. **(Added-89AW)** Ensure the lead FA coordinates with the Mission Commander or PIC regarding FA prepared aircrew meals, costs associated with those meals and servicing requirements for the mission.

3.18.1.9. **(Added-89AW)** Ensure HOTREP and SAP SITREP messages are drafted and relayed IAW paragraphs 8.15. and 8.16. of this supplement.

3.18.2. **(Added-89AW)** In order to match organic AMC DV operational aircrew FDP, Special Airlift Program (SAP) missions will normally consist of an augmented FA/CSO aircrew complement with a maximum FDP of 24 hours. The augmented SAP aircrew consists of 2 CSOs and 4 FAs. One FA may be in training to perform SAP duties. Both CSOs must be certified on all primary and secondary Roll-on/Roll-off (RORO) communication equipment. Additional FAs or CSOs may accompany the required aircrew complement for training purposes.

3.18.3. **(Added-89AW)** 89 OG/CC is waiver authority for SAP aircrew complement, CDT/FDP limitations, and pre/post-mission crew rest. Coordinate waiver requests IAW AFI 11-2VIPV3, paragraph 1.4.2.

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). Lack of available spare parts, skilled technicians, and manpower limitations have a negative and direct impact on mission accomplishment. However, redundant systems may allow safe operation with less than all equipment operational for certain missions under specific circumstances. VIP Aircraft MELs are provided in separate publications The PIC, using the following policies, determines an aircraft's overall status. Make a detailed explanation of the discrepancy in the AFTO 781A, *Maintenance Discrepancy and Work Document*, include the following maintenance identifiers to effectively communicate aircraft status:

4.1.1. Mission Essential (ME). An item, system, or subsystem component essential for safe aircraft operation or mission completion will be designated ME by the PIC. A PIC accepting an aircraft (one mission or mission segment) without an item or system does not commit that PIC (or a different PIC) to subsequent operations with the same item or system inoperative.

4.1.2. Mission Contributing (MC). An item, system or subsystem component, which is not currently essential for safe aircraft operation or mission completion, will be designated as MC. MC discrepancies should be cleared at the earliest opportunity to the extent that maintenance skills, ground time, and spare part availability permit. If circumstances change, an MC item may be upgraded to ME status. In the PIC's judgment, if mission safety would be compromised by the lack of any component, re-designate the component as ME. Do not delay a mission to correct an MC discrepancy.

4.1.3. Open Item (OI). Discrepancies not expected to adversely impact the current mission or any subsequent mission are designated as OIs. These items receive low priority and are normally worked at home station.

4.1.4. Engine performance, aircraft attitude, vertical velocity indications, altitude, speed, and heading instruments should be operative in both pilot positions. For instruments with both analog and digital displays, either the analog or digital presentation is acceptable.

4.2. Minimum Equipment List (MEL) Policy. It would be impractical to prepare a list that would anticipate all possible combinations of equipment malfunction and contingent circumstances. As such, commercial derivatives have extensive MELs that provide guidance to make safe dispatch decisions with VIP Aircraft. The C-9 MEL will be addressed in the 932 AW supplement to this AFI.

4.2.1. Description. The aircraft MEL lists the minimum equipment and systems to launch the aircraft under routine operations. The list does not necessarily include all equipment or systems essential to airworthiness (e.g. rudder, ailerons, elevators, flaps, tires, etc.). The MEL shall not conflict with the FCM or USAF/MAJCOM directives. Those items that state a minimum requirement and have no listed exceptions are grounding items.

4.2.2. Waiver Authority. PICs must refer to their aircraft MEL or Federal Aviation Administration (FAA) approved Master Minimum Equipment List (MMEL) for inoperative systems before dispatch. Deviations must be approved by the unit OG/CC (or equivalent)

prior to departure. Coordinate with unit stan/eval, system program directors, aircraft manufacturers and maintenance personnel. Safety-of-flight is paramount. MAJCOM Stan/Eval shall be informed of all granted MEL deviations within 24 hours of departure.

4.2.3. The PIC is responsible for exercising the necessary judgment to ensure aircraft are 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.

4.2.3.1. System components required to complete emergency procedures and associated warning systems will be operational. All emergency equipment will be installed unless specifically exempted by mission requirements/directives (e.g., depot inputs with minimum survival kits). One time flight authorizations to repair facilities may be authorized for primary crewmembers only. For all one time flight authorizations, notify MAJCOM Stan/Eval of OG/CC actions. ***NOTE:*** Do not accept an aircraft from factories, modification centers, or depots unless all instruments are installed and operative.

4.2.4. Off Station Waiver Policy. PICs will consider route segment (navigation requirements, terrain, weather, etc.) when determining required equipment to safely navigate and operate the aircraft. If, after exploring all options, the PIC determines a safe launch is possible with an MEL item inoperable the PIC shall request an OG/CC waiver. Use C2 channels to notify the appropriate tasking agency of intentions. Plan a minimum 1-hour response from unit stan/eval (OGV or equivalent) to respond to the waiver request.

4.2.5. Off-Station Maintenance Difficulties. PICs with maintenance difficulties away from home station will coordinate all requirements for supply and maintenance assistance with local support agencies and unit maintenance support agencies. Do not accept aircraft parts or maintenance without thorough coordination with home station C2 and maintenance agencies. Keep unit C2 centers informed of current aircraft status through CP channels. If an aircraft arrives at any station with a maintenance status that would prevent or delay departure, the PIC will take whatever action is necessary to have aircraft restored to MR status as soon as possible after landing, regardless of scheduled ground time. Aircraft must be MR as soon as possible to support DV schedule changes or diversion to a higher priority mission. The PIC will monitor maintenance and report when the aircraft is restored to MR status.

4.2.5.1. If parts are required, advise unit C2 that supply assistance is required. The PIC may be provided a contact that can arrange for parts locally. If parts will be shipped, C2 (CP, AMD, etc.) will provide the aircrew with shipping details. Normally, parts are shipped to the PIC in care of the U.S. Embassy or other mission supply activity. The PIC or embassy will make arrangements to have someone pickup the shipment as soon as possible after it arrives. When the parts shipment has been received, notify unit C2 to preclude unnecessary tracing actions.

4.2.5.2. If maintenance assistance is required beyond the scope of local capabilities, advise unit C2 of anticipated requirements. If necessary, maintenance specialists will be dispatched from home unit.

4.2.5.3. Parts are furnished by the Contractor Operated Maintenance Base Supply (COMBS) facilities. All repairable parts must be returned to the COMBS facilities. The PIC will ensure the defective parts are returned to home unit upon the aircraft from which they were removed or by the most advantageous means available. The PIC will relay the method of shipment and name/phone number of the local contact, if applicable, to unit C2. Ensure the flight engineer or crew chief attaches AFTO 350, *Repairable Item Processing Tag* to each defective part upon removal. Coordination for supply support will be arranged through the contractors support facilities at other stations. For the C-9C, standard USAF supply procedures will be used for the UHF/VHF/HF communications radios, Identification Friend or Foe (IFF), low pressure oxygen cylinders, life rafts/vests and the first aid kits.

4.2.6. Maintenance Delay. If a maintenance condition exists that will prevent or delay a VIP departure, the PIC will advise C2 centers immediately. Depending on DV desires and the urgency of their schedule, the PIC, the on-board contact, and unit C2 will coordinate a new departure time. PIC, in coordination with unit C2 and/or MAJCOM C2 with mission execution authority, shall arrange substitute transportation if available and acceptable to the DV.

4.3. Waiver Protocol. Waiver to operate with degraded equipment exceeding this chapter and the aircraft MEL/MMEL will be coordinated through unit C2 centers in coordination with unit stan/eval and waiver approval through unit OG/CC or equivalent. Notify MAJCOM Stan/Eval with mission execution authority at the earliest opportunity (within 24 hours of departure).

4.4. Technical Assistance Service. The PIC may request (at anytime in the decision process) technical support from their home unit stan/eval, MAJCOM/A3 staff, and maintenance representatives to include commercial derivative engineering support.

4.4.1. PICs 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 C2 centers prior to 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 PIC may elect to deviate according to paragraph 1.4 of this AFI. Report deviations (without a pre-approved waiver), through channels to MAJCOM/A3 with mission execution authority within 48 hours. Units must be prepared to collect background information and submit a followup written report upon request.

4.5. Not Used.

4.6. One-Time Flights. If an aircraft has a safety-of-flight condition beyond the immediate or final repair capability of an en route facility, temporary repairs may be made to allow a one-time flight to a pre-selected facility capable of final repair.

4.6.1. PIC's Recommendation. PICs will send their recommendations to C2 centers.

4.6.2. Approval Authority. MAJCOM/A3 with mission execution authority is approval authority for one-time, safety-of-flight conditions with passengers on board. ***EXCEPTION:*** OG/CC is approval authority for one-time, safety-of-flight conditions without passengers on board. Notify parent MAJCOM Stan/Eval of actions at the earliest opportunity.

Chapter 5

OPERATIONAL PROCEDURES

5.1. Checklists. MDS specific checklists are designed as clean up checklists, and items may be accomplished prior to the checklist being read. A checklist is not complete until all items have been accomplished. Momentary hesitations for coordination items, ATC interruptions, and deviations specified in the FCM, etc., are authorized. Notes amplifying checklist procedures or limitations may be added to the checklists (in pencil). Currency of notes is the crewmember's responsibility and may be evaluated.

5.1.1. Checklist Inserts. MAJCOM Stan/Evals shall approve the use of checklist inserts to supplement FCMs. If the FCM is a TO, approval will be IAW AFI 11-215, *USAF Flight Manuals Program (FMP)*. If the FCM is a commercially provided manual, approvals will parallel procedures outlined in AFI 11-215. For AMC and AMC gained units, AMC/A3V is the checklist insert approval authority. These inserts may be placed in an in-flight guide or at the end of the checklist. All proposed checklist inserts must have a POC. If any crew member has recommendations or changes they should contact the POC. Submit changes to the FCM to MAJCOM Stan/Eval and provide copies to HQ AMC Stan/Eval for final approval. Local in-flight guides and inserts not affecting FCM guidance and procedures may be locally approved by OG/OGV or equivalent.

5.1.2. Flight Operations Manuals (FOM) and Quick Reaction Checklists (QRC) are authorized. AF Form 847 will be processed through MAJCOM Stan/Eval to HQ AMC Stan/Eval (Lead Command) for revision approval.

5.2. Duty Station. Both pilots shall be in their seats during flight. One of the pilots may be out of their seat for brief periods (approximately 15 minutes) to meet physiological needs. Crewmembers will notify the pilot prior to departing assigned primary duty stations.

5.2. (89AW)3. During C-20/C-37 initial qualification (EATC) local training missions, at least one current and qualified pilot and/or flight engineer must always be at their primary duty station (i.e. in the seat).

5.2.1. With both pilots in their seats, PICs may authorize rest periods for one pilot occupying a primary duty station during non-critical phases of flight (the other pilot will be awake and alert). Only one pilot, or the flight engineer, may be absent from their duty station at a time, except as required when entering or exiting the flight deck.

5.2.2. When additional aircrew personnel are on board, the observer's seat should be occupied, preferably by a qualified pilot if available, to assist the crew in avoiding other aircraft during ground operations, and critical phases of flight.

5.2.3. Unqualified pilots in qualification training and qualified senior officers may occupy a pilot seat during flight provided another qualified pilot is in the other seat. During critical phases of flight, they must be under direct IP supervision (at a set of controls).

5.3. Flight Station Entry. PICs may authorize passengers and observers access to the flight station during all phases of flight. In all cases, sufficient oxygen sources must be available to meet the requirements of AFI 11-202V3. Passengers and observers will not be permitted access to the pilot, copilot, or flight engineer position regardless of its availability. For the C-20/C-37 at

cruise, the flight engineer/observer seat may be occupied by a passenger on a non-interference basis with approval by the PIC.

5.4. Takeoff and Landing Policy. An aircraft commander, or above, will occupy either the left or the right seat during all takeoffs and landings. The designated PIC (A-code) is not required to occupy a primary position, but still retains overall authority for conduct of the mission.

5.4.1. AC Takeoff and Landing Policy. Conditions permitting, a qualified and current pilot certified as an AC, IP, or EP will accomplish all takeoffs, approaches, and landings from the left seat under the following conditions: ***EXCEPTION:*** The PAG/CC will determine takeoff and landing policy for designated Presidential Aircraft.

5.4.1.1. Aircraft emergencies, unless conditions prevent compliance.

5.4.1.2. When making an actual Category (CAT) II or III Instrument Approach Landing System (ILS) approach.

5.4.1.3. When operating to or from airfields requiring airfield related waivers. ***EXEPTION:*** On Operational Mission Evaluations (OMEs), EPs may allow pilots being evaluated to remain in the seat if the waiver is for weight bearing capacity to the ASRR.

5.4.2. Missions in Command. Only missions where the individual is certified as an AC and designated as PIC on the flight orders will be credited as missions in command.

5.4.3. Takeoff and Landing Policy. FPs can accomplish takeoffs and landings on any mission at the discretion of the PIC using the guidance in paragraph 5.4.1 of this AFI.

5.4.3.1. **(Added-89AW)** Right-seat takeoff and landings are restricted to local training, non-passenger mission legs, or evaluation flights. On operational missions with passengers, right seat takeoffs and landings are restricted to IPs and above.

5.4.3.1.1. **(Added-89AW)** Normal 89 AW policy is to accomplish all C-20/C-37 takeoffs and landings from the left seat on all operational missions. In the interest of safety, the PIC may elect to accomplish the landing from the right seat.

5.5. Landing Gear and Flap Operating Policy. Unless the FCM directs otherwise, the pilot in the left seat will command gear and flap operations and the pilot in the right seat will activate the systems. The right seat pilot will acknowledge the command prior to system activation. If the pilot flying (PF) the aircraft is in the right seat, that pilot should command gear and flap operations to include a go-around. The pilot monitoring (PM) in the left seat will acknowledge the command prior to gear/flap system activation by the right seat pilot. MDS Cockpit/Crew Resource Management (CRM) differences should be thoroughly briefed for right seat procedures to include programming flight management systems.

5.6. Outside Observer. When available, use a crewmember to assist in outside clearing during all taxi operations and any time the aircraft is below 10,000 feet Above Ground Level (AGL). If the aircraft will penetrate a known or suspected Weapons Engagement Zone (WEZ), the PIC will review, brief, and assign specific observer duties according to applicable AFTTP lookout doctrine.

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 PIC and the FCM. The use of an Infant Car Seat (ICS) aboard aircraft is not

mandatory. Crewmembers will assist passengers in securing the ICS in the seat. The PIC will be the final authority in determining if the ICS is adequately secured.

5.7.2. Crewmembers occupying primary crew positions will have seat belts fastened at all times in-flight, unless crew duties dictate otherwise.

5.7.3. All crewmembers will be seated with seat belts and shoulder harnesses fastened during taxi, takeoff, and landing, unless crew duties dictate otherwise. Crewmembers performing instructor or flight examiner duties are exempt from seat belt requirements unless they occupy a crew station; however, a seat with an operable seat belt will be available.

5.8. Aircraft Lighting. Set aircraft lighting IAW this AFI, AFI 11-202V3, FCM, AFTTPs, and applicable AOR guidance.

5.9. Portable Electronic Devices. Comply with AFI 11-202V3, paragraph 2.5.1.

5.9.1. Portable non-transmitting devices are authorized IAW AFI 11-202V3, paragraph 2.5.1 and include audio and video recorders, playback devices, computers, peripherals, electronic entertainment devices, radio receivers, and personal digital assistants (PDA). Navigation aid Portable Electronic Devices (PED) are covered in 5.23 of this Instruction.

5.9.2. Unauthorized equipment (e.g., Walkman-type radios/tape players, CD players, etc.) will not be connected to the aircraft intercom, Public Address (PA) or radio systems.

5.9.3. Portable Satellite (SAT) Phones. The use of portable SAT phones (IRIDIUM, FLIGHTCELL etc.) in flight is authorized on C-32, C-37 and C-40 aircraft in Visual Meteorlogical Conditions (VMC) above 10,000 feet. Until Lead Command approved, they are not authorized for use in Instrument Meteorological Conditions (IMC) or to be connected to aircraft power or antennas. Suction cup antenna use is authorized.

5.9.3.1. SAT phones will not be used below 10,000 feet or in IMC. CSOs and FAs will notify the PIC if SAT phones are in use to assist in compliance.

5.10. Tobacco Use on Air Force Aircraft. Tobacco use, to include smokeless (spit/loose) products, is prohibited on Air Force aircraft per AFI 40-102, *Tobacco Use in the Air Force.* If an exception to policy is required, it must be coordinated through HQ AFMOA/SGZP to HQ USAF/CC for approval.

5.11. Advisory Calls. The PF will announce changes to the level of automation, flight director and autopilot mode selections and mode transitions, and/or when circumstances require deviating from normal procedures. The PM will make all advisory calls except those designated for other crewmembers. NOTE: Automated aircraft advisory calls satisfy this requirement. **Tables 5.1 through 5.5** depict suggested calls for nonprecision approaches, precision approaches, climbout and descent, and supplement FCM guidance on mandatory calls.

Table 5.1. Nonprecision Approaches.

PHASE OF FLIGHT	PM CALL	PF RESPONSE
100 feet above Final Approach Fix (FAF) altitude	“100 above”	
100 feet above step down altitude	“100 above”	

100 feet above Minimum Descent Altitude (MDA)	"100 above"	
MDA	"Minimums"	
Runway environment in sight	"Runway in sight"	"Land" (Note 3)
Missed Approach Point (MAP)	"Go-around" (Note 1)	"Go-around" (Note 1)

Table 5.2. Precision/Vertical Navigation (VNAV) Approaches.

PHASE OF FLIGHT	PM CALL	PF RESPONSE
100 feet above glide slope intercept altitude	"100 above"	
100 feet above Decision Height (DH)/Altitude (DA)	"100 above"	
At DH/DA		
- Runway environment in sight	"Land" (Note 3)	"Land" (Note 3)
- Approach Lights in sight (CAT I ILS)	"Continue"	"Continue" (Note 2)
- Approach lights and/or Runway environment not in sight	"Go-around" (Note 1)	"Go-around" (Note 1)

Table 5.3. CAT II ILS Approaches.

PHASE OF FLIGHT	PM CALL	PF RESPONSE
100 feet above glide slope intercept altitude	"100 above"	
100 feet above DH	"100 above" (Note 4)	
At DH (Notes 4 & 5)		
- Runway environment in sight	"Land" (Notes 3 & 5)	"Land" (Notes 3 & 5)
- Approach lights and/or Runway environment not in sight	"Go-around" (Note 1)	"Go-around" (Note 1)

Table 5.4. Climb Out.

PHASE OF FLIGHT	PM CALL	PF RESPONSE
Transition Altitude	"Transition, 2992"	"Transition, 2992"
1000 below assigned altitude	"One Thousand Below"	

Table 5.5. Descent.

PHASE OF FLIGHT	PM CALL	PF RESPONSE
Transition Level	"Transition, state localsetting"	"Transition, state local setting"
1000 above assigned altitude	"One Thousand Above"	

NOTES:

1. The PF will announce his/her intentions to either land or go-around. If the runway environment is not in sight and/or the aircraft is not in position for a normal landing, a go around will be made.

2. With weather at CAT I minimums on a CAT I ILS, the pilot may not see the runway environment at DH; however, the initial portion of the approach lights will be visible. The pilot may continue to 100 HAT with reference to the approach lights. For a CAT I/II ILS, the pilot may not descend below 100 feet above touchdown zone elevation using the approach lights as the sole reference unless the red terminating bars or the red side row bars are distinctly visible and identifiable.

3. The PF will announce his/her intentions to either land, continue, or go-around. Respond intention to "Land" if runway environment is in sight, will remain in sight throughout touchdown and the aircraft is in a position for a safe landing. The "Land" call will not be made solely off of the approach lights unless the requirements in Note 2 are satisfied.

4. Calls will be based off of the radio altimeter.

5. Tolerances to call "Land" are IAW FCM guidance or as follows if not specified:

a. Airspeed is plus or minus 5 knots of the computed final approach

b. Localizer or glideslope deviations do not exceed ½ dot deviation on the course deviation indicator (CDI) or glideslope indicator.

c. Aircraft track will remain within the lateral confines of the runway extended.

d. If any of these are exceeded, or if the aircraft is not stabilized IAW the FCM, a "Go Around" will be called.

6. All other instrument approach callouts are located in the appropriate FCM, or approved MAJCOM supplement/local supplement.

5.11.1. Deviations.

5.11.1.1. The PF will brief any planned deviations from procedures. The PM will announce any deviations from planned or prescribed procedures for the approach or departure being flown. They will also announce course and heading deviations, airspeed deviations of 5 knots or more below desired, and altitude deviations of 100 feet or more from desired.

5.11.1.2. Any crewmember will announce an altitude variation of 200 feet or more, an airspeed deviation of 10 knots or more below desired, or any potential terrain, obstruction or traffic clearance problem.

5.12. Communications Policy. Recorded aircraft crew communications are considered factual and therefore the Air Force does not give a promise of confidentiality to aircrews regarding their recorded aircraft crew communications. Crewmembers 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, flight below 10,000 feet Mean Sea Level (MSL) (except cruise), and penetration of a known or suspected WEZ.

5.12.2. Aircraft Interphone/Datalink. Do not discuss classified information over interphone or clear VHF/HF datalink [Aircraft Communications Addressing and Reporting System (ACARS)/Airborne Flight Information System (AFIS)] channels. Primary crewmembers will monitor interphone. Crewmembers will advise the PIC prior to checking off interphone.

5.12.3. Command Radios:

5.12.3.1. The PM normally makes all ATC radio calls. Normally, use only one command radio, plus guard. Monitoring two controlling agencies' transmissions simultaneously is not recommended. ***EXCEPTION:*** ILS/PRM approaches.

5.12.3.2. In terminal areas the primary crewmembers at assigned stations will monitor the primary command radio unless directed otherwise.

5.12.3.3. The pilot operating the command radios will inform the crew when the primary radio is changed. Also, announce the radio (if different from the primary) on which to monitor guard.

5.12.3.4. One pilot should record and will acknowledge all ATC clearances. The other pilot, navigator, or flight engineer will monitor the read-back. This includes all transmissions pertaining to ATC instructions involving departure, en route, and approach procedures. Disregard this procedure when ATC instructions require immediate execution or when such action interferes with completion of more important duties or physiological needs.

5.12.3.5. Both pilots will monitor UHF and VHF guard frequencies to the maximum extent possible.

5.12.3.6. The Federal Communications Commission (FCC) prohibits the use of unauthorized frequencies for interplane, HAVE QUICK and SECURE VOICE training.

5.12.3.7. When the aircraft is in other than a normal configuration (for example, an engine inoperative, hydraulic or electrical malfunction, communications difficulty, etc.), the pilot should request simultaneous transmission of the controller's instructions on a single frequency approach if in a terminal area under radar control.

5.12.4. CRM Assertive Statement “Time Out":

5.12.4.1. "Time Out" is the common assertive statement for use by all crewmembers. 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 crewmembers 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.

5.12.4.2.3. The PIC will provide all other crewmembers with the opportunity to voice inputs relative to the stated concerns.

5.12.4.2.4. After considering all inputs, the PIC will direct the aircrew to continue the current course of action or direct a new course of action. ***NOTE:*** The PIC is the final decision authority.

5.13. Transportation of Pets. Transporting pets (dogs and cats) on aircraft will be coordinated through unit OG/CC (or equivalent) for approval with C2 agencies (CVAM, AMD, etc). Other pets or animals are normally prohibited. Waiver authority is OUSD(AT&L). Units are responsible for developing guidance regarding handling of pets during flight.

5.13.1. **(Added-89AW)** Comply with the following guidance regarding the transportation of pets. PAG/CC establishes pet transportation policy for PAG missions.

5.13.1.1. **(Added-89AW)** C-20/C-37. Pets will be kenneled for takeoff and landing. ***EXCEPTION:*** If, in the opinion of the PIC, the pet will not hinder passenger or aircrew movement throughout the cabin, the pet does not require kenneling during takeoff or landing.

5.13.1.2. **(Added-89AW)** C-32/C-40. Pets will be kenneled, or remain in the DV compartment/stateroom, for takeoff and landing.

5.14. Alcoholic Beverages. Dispensing of alcoholic beverages on VIP Aircraft is IAW AFI 34-219, *Alcoholic Beverage Program*. MAJCOMs will publish approvals in applicable supplements.

5.15. Runway, Taxiway, and Airfield Requirements use Table 5. 6. and Table 5.7

Table 5.6. Minimum Runway Length.

MDS Aircraft Type	Minimum Runway Length
C-9/C-20/C-32/C-37/C-40	5000 feet or 1525 meters
VC-25	See Note
NOTE: PAG/CC determines minimums for Presidential Airlift Missions.	

5.15.1. Waiver requirements. If operationally necessary, the unit OG/CC may approve use of runways shorter than specified. Approval requires careful evaluation of aircraft and crew capabilities. Request waivers through C2 centers, unit stan/eval for OG/CC approval. If operations are approved, a qualified and current AC, IP or EP will make the landing and takeoff from the left seat. Inform MAJCOM/Stan Eval of all OG/CC waivers granted.

5.15.2. Runway length for takeoff.

5.15.2.1. Do not attempt takeoff if runway available is less than critical field length (Use the greater of accelerate-and-stop or accelerate-and-go distance for the C-20/C-37).

5.15.3. Runway Length for Landing.

5.15.3.1. Minimum required runway for landing will be based on landing distance computed from 50 feet over threshold.

5.15.3.2. Compute landing distance with no-reverse thrust. ***EXCEPTION:*** C-37B landing distance on wet or contaminated runways will be computed using maximum reverse thrust.

5.15.3.3. C-20/C-37. Minimum runway may be reduced to landing ground roll plus 1000' when approved by OG/CC. Reported weather must be equal to or greater than circling minimums. Pilots should plan to touchdown approximately 500 feet from the approach end of the runway and a normal visual glidepath will be used (i.e. 2.5 to 3 degrees).

5.15.4. Minimum Runway and Taxiway Width Requirements.

Table 5.7. Minimum Runway and Taxiway Width Requirements.

MDS Aircraft Type	Minimum Runway Width	Minimum Taxiway Width	Minimum Width 180 Degree Turn
C-9 (Note 6)	90 feet (28 meters)	40 feet (Note 1)	75 feet (23 meters)
C-20/C-37 (Note 6)	75 feet (23 meters)	25 feet (8 meters) (Notes 2, 3 & 4)	75 feet (23 meters)
C-32/C-40 (Note 6)	98 feet (30 Meters)	49 feet (15 Meters) (Note 5)	120 feet (C-32) 75 feet (C-40)
VC-25	See Note 6	See Note 6	See Note 6

NOTES:

(1) 90 degree turns onto a 40 foot taxiway will be from a minimum surface width of 75 feet.

(2) C-20: For 90 degree turns to/from a surface less than 35 feet, but no less than 25 feet, the other surface will be a minimum width of 45 feet. Offset to the larger surface to keep on pavement.

(3) C-37: For 90 degree turns to/from a surface less than 35 feet, but no less than 25 feet, the other surface will be a minimum width of 55 feet. Offset to the larger surface to keep on pavement.

(4) For both C-20/C-37: Minimum taxiway width for 90 degree turns (with fillets) is from a 35 foot to 35 foot taxiway. Even when fillets are available, these turns may not be possible in the given taxiway surface. Deplane a crewmember if in doubt to marshal the turn.

(5) C-32 aircraft require fillets when turning from one 49 foot (15 meter) wide taxiway to another.

(6) PAG/CC determines minimums for Presidential Airlift Missions.

5.15.5. Use of Overruns. 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.

5.15.6. Takeoff or Landing Over Raised Arresting Cables (does not include recessed cables).

5.15.6.1. When conditions permit [aircraft gross weight, runway length, weather, winds, Takeoff and Landing Data (TOLD), etc.] and the PIC has considered the potential for damaging the aircraft, make takeoffs and landings beyond raised cable barriers. Use the entire length of runway if necessary. Be aware that operations over arresting gear barriers at speeds in excess of taxi speed may result in damage to the aircraft.

5.15.6.2. Do not land on a raised arresting cable. Damage may occur to the cable or aircraft.

5.15.6.3. If the aircraft lands before a raised arresting cable and rolls over it, the flight crew should contact the tower to have the cable inspected (this does not include rolling over a cable at normal taxi speeds).

5.15.6.4. Do not takeoff or land over a raised arresting cable that has been reported as slack, loose, or improperly rigged by NOTAM, Automated Terminal Information Service (ATIS), ATC, etc.

5.15.7. Other Airfield Requirements.

5.15.7.1. Consult with MAJCOM Airfield Suitability Branch (HQ AMC/A3AS for MAJCOMs without an airfield suitability branch) for suitability guidance. Once a mission is in execution, the PIC is responsible for determining airfield suitability based upon operational need. Airfield certification requirements are detailed in the ASRR.

5.15.7.2. Aircrews and planning agencies will contact HQ AMC/A3AS for all questions pertaining to airfield weight bearing capacity and will review the Global Decision Support System (GDSS)/GDSS2/ASRR before all off-station operations for which AMC is the mission execution authority. 18AF/CC is the waiver authority for the restrictions in GDSS/GDSS2 Giant Report and ASRR for AMC and AMC-gained aircraft, unless specifically delegated in this Instruction or AMCI 11-208. Direct GDSS/GDSS2 Giant Report and ASRR waiver requests to HQ AMC/A3AS. Parent MAJCOM/A3 is the

waiver authority for non-AMC missions. The PIC is responsible for waiver compliance. Consult the ASRR for airfield certification requirements.

5.15.8. Wind Restrictions. Airfields will be considered unusable for takeoff and landing when winds (including gusts) are greater than established in Table 5.8.

Table 5.8. Wind Restrictions.

MDS Aircraft	Maximum Wind Any Direction	Maximum Tailwind Component	Maximum Crosswind Component
C-9/C-20/C-37/VC-25	50 knots	10 knots	FCM limit
C-32/C-40	50 knots	15 knots	FCM limit

5.15.8.1. The maximum crosswind component during manual (autopilot off) CAT II and CAT III ILS approaches is 10 knots.

5.15.8.2. The maximum crosswind component for VC-25 (autopilot on) CAT II and CAT III approaches is 15 knots.

5.15.8.3. The maximum crosswind component for (autoland) CAT II and CAT III approaches is 25 knots (C-32) and 20 knots (C-40).

5.15.8.4. The maximum crosswind component for C-37A/B (autopilot on) CAT II approaches is 20 knots.

5.15.8.5. Reference chapter 9 for CAT II training restrictions.

5.15.8.6. **(Added-89AW)** The maximum crosswind component for C-20 (autopilot on) CAT II approaches is 10 knots.

5.15.9. Runway Condition Reading (RCR) or Runway Surface Condition (RSC). Comply with FCM guidance.

5.15.9.1. Determine RCR versus maximum allowable crosswind component from the FCM. Braking Action/Mu values from the FCM define runway condition and aircraft capability. RCR equivalents to Braking Action/Mu values are found in the FCM.

5.15.9.2. Operations on runways partially covered with snow or ice, takeoff data will be based on the reported RSC or RCR for the cleared portion of the runway. To ensure proper takeoff performance in the event of an engine failure, the runway should be cleared to allow for your maximum Vmcg offset (e.g., C-32 is 25 feet plus main gear offset). If your required Vmcg offset either side of centerline is not cleared to the reported RSC, then the RSC of the unclear portion, up to your required offset, will be used for takeoff data computations.

5.15.9.3. RCR Reporting. RCR information is obtained only within 20 feet of the runway centerline. Only the average RCR is reported. Many portions of the runway (laterally and longitudinally) may have a significantly lower RCR than the value reported.

5.15.9.4. Wet vs. RCR. For operations on wet, un-grooved runways, use the RCR designated as "wet" in the FCM for all takeoff and landing data. Use RCR 12 if the "wet" RCR is not designated in the FCM. For wet operations on grooved runways, use the RCR corresponding to “Dry” in the FCM.

5.15.9.5. No Reported RCR or RSC. When RCR or 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 reflective glare or when rain is falling.

5.15.9.6. Localized Hazards. RCR or RSC reports do not call attention to localized RSC hazards, i.e. standing water pools, snow, and sand drifts. Such hazards probably will not be reported unless accompanied by reduced RCR. Pilots should be alert to the possibility of this condition existing and, if deemed safe, attempt to avoid these hazards.

5.15.9.7. RCR Corrections. Do not use runways with reported RCR lower than the lowest RCR correction contained in the FCM.

5.15.9.8. If the runway is wet and the reported RCR is higher than the FCM wet RCR, the actual reported RCR may be used for mission accomplishment.

5.15.9.9. C-9 operations into/out of runways less than 5,500 feet available when the RCR is less than 12 require an OG/CC waiver.

5.15.9.10. C-37B operations on wet or contaminated runways require a correction to effective runway length to ensure a screen height of 35 feet is met on takeoff with engine failure. The PIC will ensure applicable performance data is referenced when operating on wet or contaminated runways.

Table 5.9. C-9C Crosswind Limitations.

RCR Value	4	5	6	7	8	9	10	11	12 and above
Max Xwind Component	5	7	10	12	15	17	20	22	30

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

5.16.1. Without wing walkers, avoid taxi obstructions by at least 25 feet. With wing walkers, avoid taxi obstructions by at least 10 feet. ***EXCEPTION:*** Aircraft at home station may delete wing walker restriction IAW AFI 11-218, *Aircraft Operations and Movement on the Ground*, if paragraphs 1.22.2 or 1.22.3 (as applicable) are complied with.

5.16.2. When taxi clearance is doubtful, use one or more wing walkers. If wing walkers are unavailable, de-plane one or more crewmembers to maintain obstruction clearance and provide marshalling. Use AFI 11-218 signals. The PIC should use marshallers, wing walkers, deplaned crewmembers, or a crewmember positioned at a door or window to act as an observer while maneuvering on narrow taxiways. During night taxi operations, marshallers should have an illuminated wand in each hand. Observers should be in a position to observe wing walkers at all times (through door or windows) and communicate to the pilot.

5.16.3. When taxi certified flight engineers taxi the aircraft, another taxi certified crewmember will be in the other pilot's seat (Comply with AFI 11-218).

5.16.4. FOD Avoidance. Make every effort to minimize the potential for engine FOD. Crews should:

5.16.4.1. Carefully review airfield layout during mission planning. Be familiar with taxi routes, turn requirements, and areas for potential FOD.

5.16.4.2. Confirm that taxi routes have been swept. If a taxi route has not been swept, consider taxiing via an alternate route.

5.16.4.3. Minimize power settings during all taxi operations.

5.16.4.4. Avoid (when possible) 180-degree turns.

5.16.4.5. Avoid (when possible) taxi operations that would position a wing engine over an unprepared or un-swept surface. If it becomes absolutely necessary to position a wing engine over an unprepared or un-swept surface, the engine should be left in idle (to the maximum extent possible) until the engine is back over an improved surface. Consider increasing power on remaining engines.

5.16.4.6. 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. Human Remains (HR). MAJCOM/A3 with mission execution authority must authorize transport of HRs on VIP Aircraft.

5.18. Fuel Jettison Procedures. Fuel jettison is limited to the minimum necessary for safe and effective flight operations. Except in the case of an emergency, prior to jettisoning fuel, crews will notify the appropriate ATC or flight service facility of intentions, altitude, and location. Inform the appropriate ATC or flight service facility when the operation is complete.

5.19. Aircraft Speed. IAW AFI 11-202V3, FCM, and applicable AFTTPs.

5.20. Bird/Wildlife Aircraft Strike Hazard (BASH) Programs. BASH programs are centralized unit efforts that provide information cross-feed, hazard identification, and a consolidated course of action. As a minimum, units 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 Instrument Flight Rules (IFR)/Visual Flight Rules (VFR) traffic pattern activity is prohibited.

5.20.1.3. Bird Watch Condition Severe - All takeoffs and landings are prohibited. Waiver authority is local OG/CC or equivalent. Reference paragraph 1.4.2 for the waiver authority to operate at non-DoD airfields. ***EXCEPTION:*** PAG/CC is waiver authority for Presidential Airlift Missions.

5.20.2. Make every effort to not schedule takeoffs, landings, and low-levels from one hour before to one hour after sunrise and sunset during the BASH phase II period. Significant bird

hazards will be published in FLIP Area Planning (AP) and the IFR Supplement along with the associated airfield operating hour restrictions and avoidance instructions.

5.20.3. When operating at airfields where no BASH program exists, PIC's have the authority to delay takeoffs and arrivals due to bird condition. Coordinate through appropriate C2 authority.

5.20.4. The PIC should consider bird migratory patterns during the en route portion of the mission to help minimize the potential of an in-flight bird strike. The Bird Avoidance Model (BAM) on HQ AFSC/SEF website contains BASH information including regionalized CONUS bird migration patterns, European BIRDTAMS, Portable Flight Planning System (PFPS) software overlay, and the latest news. The Avian Hazard Advisory System (AHAS) website is another source for real time bird hazard information. Both sites may be accessed through the AMC aircrew mission planning portal. See AFPAM 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Techniques*, for additional information.

5.20.5. Following a bird strike, aircrews should land as soon as conditions permit to have the aircraft inspected by qualified maintenance personnel. Aircrews involved in a wildlife strike will fill out an AF Form 853, *Air Force Wildlife Strike Report*, and forward to the appropriate safety office.

5.20.5.1. Bird strike damage cannot be accurately assessed in-flight, and undetected damage may result in a complex airborne emergency; only qualified maintenance personnel on the ground can make reliable damage assessments.

5.20.5.2. Aircrews should not change the aircraft configuration until it has been determined that it is safe to do so. However, crewmember judgment should always prevail in any situation in making a decision concerning safety of the aircrew and aircraft.

5.21. Functional Check Flights (FCF), Acceptance Check Flights (ACF) and Operational Check Flights (OCF). FCFs and ACFs will be performed according to TO 1-1-300, *Acceptance/Functional Check Flt and Maint Opr Checks*, and the applicable AFI 21-101. FCF flights/programs are not applicable to leased aircraft (except where specifically annotated in lease agreement).

5.21.1. Terms and Abbreviations:

5.21.1.1. FCF. FCFs are performed after accomplishing inspections or maintenance to assure the aircraft is airworthy and capable of mission accomplishment. FCF certification required.

5.21.1.2. ACF. ACFs specify guidelines for accepting new production aircraft and to determine compliance with contractual requirements. ACF certification required.

5.21.1.3. OCF. OCFs will be performed to verify functionality for could not duplicate (CND) and non-safety of flight items. Aircraft will be at least Partial Mission-Capable (PMC) to perform an OCF. PIC will be at least an instructor pilot.

5.21.2. FCF Restrictions:

5.21.2.1. Conditions requiring an FCF typically include (but are not limited to) major retrofit modifications, removal or replacement of moveable flight control surfaces, 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 an engine. Final determination for conditions requiring an FCF are contained in manufacturer's guidance or maintenance TOs.

5.21.2.2. OG/CC's are responsible for the wing FCF program. The OG/CC may waive a complete FCF and authorize an FCF to check only systems disturbed by maintenance, inspection or modification.

5.21.2.2.1. **(Added-89AW)** The PIC and FE will receive a briefing on FCF requirements. At home station, maintenance will conduct the FCF briefing. For flights at contractor facilities, obtain a briefing from the contractor quality assurance inspectors. The briefing should include a complete rundown of the maintenance performed, the current maintenance status of the aircraft, and the checks required during the flight. Other crewmembers should attend the FCF briefing as required.

5.21.2.2.2. **(Added-89AW)** Comply with the FCF checklist from the -6 T.O. or aircraft-specific FCF checklist.

5.21.2.2.3. **(Added-89AW)** The PIC will perform pilot-flying duties on FCFs and ACFs from the left seat. An FCF is not a training mission. Complete the applicable checks, and have the aircraft released for flight prior to conducting training.

5.21.2.3. Minimum Crew Complement: Pilot: At least one FCF/ACF certified instructor, second pilot must be current and qualified; Flight Engineer: one FCF/ACF certified instructor; CSO and FA: as required.

5.21.2.3. **(89AW)** Aircrew complements for FCFs and ACFs will include only the minimum aircrew required to accomplish the checks.

5.21.2.4. Check flights should be conducted within the designated check flight airspace of the airfield from which the flight was launched except when the flight must be conducted under specific conditions, not compatible with local conditions and area restrictions.

5.21.2.5. Reference paragraph 1.4.2 for the waiver authority to approve a combined FCF and ferry flight with degraded systems.

5.21.2.6. FCFs and ACFs will be accomplished by the best qualified instructor/evaluator aircrews. The OG/CC will provide written designation of FCF/ACF qualified aircrew.

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

5.21.2.8. 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.

5.21.2.9. OG/CC (or equivalent) and deployed mission commander may authorize temporary waivers to these FCF procedures for aircrew qualification when operationally necessary. Permanent waiver requests require MAJCOM Stan/Eval approval.

5.22. Participation in Aerial Events. IAW AFI 11-209, *Aerial Event Policy and Procedures,* all aerial events must be sanctioned and individually approved by the appropriate military authority, and dated with the FAA. AFI 11-209 clearly identifies events sanctioned for support, and specifies the approval authority for each type. AFI 11-209 also stipulates that units participating in aerial events will ensure activities are coordinated with the FAA through the regional USAF representative.

5.23. Hand Held GPS and Portable Electronic Devices for Navigation. All VIP Aircraft have integrated GPS. As a backup, aircrews are authorized to carry an approved handheld GPS unit for additional situational awareness. Use of a handheld GPS unit as an IFR navigation aid is prohibited. An Electronic Flight Bag (EFB) is a portable tablet computer. It contains a database of approach charts/plates for use in flight. Some EFBs are integrated into the Flight Management Computer (FMC)/Flight Management System (FMS) or have a hand-held GPS and suction cup antenna. Use of these devices for instrument procedures (below 10,000 feet) must be approved by HQ AFFSA/A3OF and MAJCOM/A3 with mission execution authority. All non-transmitting portable electronic devices require Electromagnetic Interference (EMI)/Electromagnetic Compatibility (EMC) testing for use in flight below 10,000 feet. AMC/A3V maintains a list of approved carry-on electrical devices. Contact AMC/A3VS for specifics.

5.23.1. Before using the device in-flight, aircrew members must receive training and aircraft must be capable of supporting the hand-held GPS equipment. The portable GPS will not be used to update Inertial Navigation Systems (INS)/Inertial Reference Systems (IRS) equipment unless the portable GPS position can be confirmed by another aircraft source [i.e. radar, Tactical Air Navigation (TACAN), Very High Frequency Omni-Directional Radio-Range (VOR), another INS/IRS, or navigator].

5.24. Traffic Alert and Collision Avoidance System (TCAS). TCAS is designed to enhance crew awareness of nearby traffic and issue advisories for timely visual acquisition or appropriate vertical flight path maneuvers to avoid potential collisions. It is intended as a backup to visual collision avoidance, application of right-of-way rules and ATC separation. The PIC will file an AF Form 651, *Hazardous Air Traffic Report (HATR)* if required to deviate due to an resolution advisory (RA).

5.24.1. Aircrew must comply with all RA's. This ensures aircraft separation computed by TCAS. Failure to follow the computed RA may result in a midair collision. Advise ATC as soon as practical when a deviation becomes necessary due to a TCAS resolution advisory.

5.24.2. Aircrew should visually clear the airspace and obtain clearance prior to maneuvering the aircraft in response to a TCAS traffic advisory (TA).

5.25. Radar/Radio Altimeter.

5.25.1. Any crewmember detecting the illumination of the radar/radio altimeter Low Altitude Warning Light will immediately notify the PF. Terrain clearance and aircraft position must be verified.

5.25.2. Before departure the radar/radio altimeter should be set to the emergency return minimums altitude or the first planned approach for local training unless FCM specifies different. Normally, use the height above touchdown/height above aerodrome (HAT/HAA) for IMC, or 600 feet for VMC departures.

5.25.3. Set the radar/radio altimeter to the HAT/HAA during instrument approaches.

5.26. Not Used.

5.27. Reduced Power Takeoffs. Accomplish IAW applicable FCM.

5.28. Aircraft Recovery From Unprepared Surfaces. Aircrews should 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. ***EXCEPTION:*** In highly unusual situations, it may be necessary for VIP aircrews to recover the aircraft. Accomplish recovery only if the PIC has coordinated with unit safety, stan/eval and appropriate MAJCOM maintenance authorities through the unit C2 centers to confirm there is no aircraft damage and the surface will support the aircraft.

5.29. Engines Running Onload/Offload (ERO) Procedures. Accomplish IAW applicable FCM and AFTTPs.

5.30. Use of Automation. In order to perform the same demanding worldwide strategic and theater missions currently flown with larger crews, automation is employed. All TOs, procedures, checklists, training, and supporting documents are designed to support the human operator.

5.30.1. It is the responsibility of the crew to fully understand the operations and limitations of the automation on the aircraft. In flight, the PF will determine the most desirable level of automation for a given situation. The PM provides basis for duties to aid PF, he must manage PF workload, set priorities and employ the available resources, including automation, to help PF maintain overall situational awareness.

5.30.2. Use appropriate levels of automation as required by the flight conditions. The first priority is to fly the aircraft. The FMC/FMS/Automatic Flight Director System (AFDS) and Mission Computer are intended to aid in workload management, not complicate it. As the flight situation changes, do not feel locked into a level of automation.

5.30.3. Avoid the following common pitfalls associated with over-reliance, misuse, or misunderstanding of automation.

5.30.3.1. Fixating on the automation. One pilot should always remain heads up. Establish clear roles for computer related tasks. Announce “pilot heads down” when the task requires focusing significant attention on the mission computer in flight.

5.30.3.2. Misprioritizing programming tasks. Extensive reprogramming during critical phases of flight or during periods of high workload should be avoided.

5.30.3.3. Mode awareness. The PF should monitor flight mode annunciations and make AFDS panel changes during coupled operations. Programming the FMC/FMS should be verified by PF prior to coupling route to the autopilot. During uncoupled flight, the PF should direct the PM to make changes to the AFDS panel to match the flight director. Confirm all mode changes by observing the correct flight mode annunciations.

5.30.3.4. Altitude Window. The most critically missed area of responsibility is the altitude window on the AFDS panel. Typically, (autopilot on or off), the PM sets the cleared altitude in the window and confirms the altitude with the PF. It is vital that the

PM obtain verbal confirmation from PF after setting an assigned altitude on the AFDS panel.

5.30.3.5. Over-reliance on automation. Practice flight operations at all levels of automation to be proficient. If the automation is not performing as expected, take over manually. Reference backup navigational aids (NAVAIDs) (if available) that define the procedure when using the FMC/FMS.

5.31. Aircraft Defensive System (DS). Operate DS IAW applicable FCMs, technical instructions, AFTTPs, and command guidance.

5.32. Mobility Aircrew Fall Protection. Aircrew members are prohibited from climbing onto the upper fuselage or wing surfaces unless there is an operational necessity. When operational conditions dictate that aircrew members must climb onto upper fuselage or wing surfaces, they will do so only when conditions are dry and while wearing a maintenance safety harness and properly engaged lanyard. PICs will ensure no other personnel (excluding qualified ops/maintenance personnel) have access to, or are allowed to, climb onto the fuselage or wings. ***EXCEPTION:*** Aircraft that do not have the ability to anchor the maintenance safety harness and lanyard are exempt from the harness requirement until a suitable alternate is available.

5.33. (Added-89AW) Supervision of C-20/C-37 Baggage Loading. The proximity of the aft baggage door to the trailing edge of the wing creates the potential for damage to the aircraft and/or injury to personnel. PICs should ensure a crewmember monitors the loading and unloading of all baggage, communications boxes, additional equipment, etc. during missions. It is preferable to station the crewmember outside to supervise the upload/download and assist, as necessary. The supervising crewmember should be in addition to the crewmember inside loading bags. Flight Attendants and other crewmembers conducting loading inside the aircraft are reminded that the safety strap should ALWAYS be connected any time the baggage door is open unless there is a spotter on the ground.

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. VIP aircrews are authorized to wear civilian attire and non-fire retardant uniforms while performing aircrew duties (this approval meets the waiver requirement of AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*).

6.1.2. Aircrew Uniforms. Flight crews will comply with AFI 36-2903 standards at all times, including while off duty. Flight crews wear the aircrew uniform as directed by unit OG/CC or equivalent as specified in local supplement or MAJCOM supplement to this AFI.

6.1.2.1. **(Added-89AW)** 89 OG OCONUS Uniform Policy. Squadrons may provide additional guidance or restrictions to this policy in their unit OIs. Civilian clothes/business attire will normally be worn on all OCONUS missions, or as directed by CVAM on the Avisource itinerary. The PIC may deviate from the norm based on Foreign Clearance Guide requirements, party requests, SPINS, etc.

6.1.2.2. **(Added-89AW)** 89 OG CONUS Uniform Policy. Squadrons may provide additional guidance or restrictions to this policy in their unit OIs. For CONUS SAM missions, short-sleeve blue shirt without tie/tab will be worn from 1 Apr – 31 Oct. Long-sleeve blue shirt with tie/tab will be worn from 1 Nov - 31 Mar. The PIC may change the uniform based upon environmental conditions and is responsible for ensuring all aircrew members are notified of the uniform change. In no case will the short-sleeve blue shirt with tie be an approved uniform combination; however, flight engineers are authorized to wear a tie with short sleeve shirt under the Class A jacket when short sleeve-no tie/tab is the uniform for the mission.

6.1.2.2.1. **(Added-89AW)** For CONUS Top 5 missions and back-ups to Top 5 missions, the uniform is long-sleeve blue shirt with tie/tab, regardless of the season.

6.1.2.2.2. **(Added-89AW)** PAG/CC determines uniform requirements for PAG missions.

6.1.2.3. **(Added-89AW)** PAG personnel are authorized wear of distinctive jacket embroidered with the first and last name in script on the left side and the Presidential seal (patch) with "Air Force One" embroidered on the right side of the Air Force lightweight blue jacket. Metal rank insignia will be worn on the shoulder for both officer and enlisted. The jacket will not be worn with civilian clothes off the aircraft.

6.1.3. Locals, FCFs, and Ferry Flights. Uniforms for local flights are specified by the squadron. Crewmembers on FCF/ferry/training flights away from home station may wear any authorized uniform combination. Crew chiefs and maintenance personnel are authorized to wear the utility uniform.

6.1.4. TDY VIP flight crews will comply with AFI 36-2903 standards at all times, including while off duty. Clothing will present a neat, conservative appearance and be appropriate for the country and/or hotel/facilities being visited. At no time will crewmembers wear clothing with profane or obscene statements, pictures, or logos. Male crewmembers are not authorized the wear of earrings.

6.1.5. Uniforms for aircraft security RAVENs. RAVENs and RAVEN augmentees will wear the same type clothing, military or civilian, as the rest of the aircrew. For stateside and overseas missions scheduled to Remain Overnight (RON) at civilian airports or overseas missions transiting US military bases where civilian clothing is required for travel, civilian clothing will be worn while performing sentry duties. The RAVEN Non-Commissioned Officer in Charge (NCOIC) will coordinate duty uniform requirements with the PIC prior to mission departure.

6.1.6. Personnel will have the appropriate items of clothing in their possession when flying in Arctic and Antarctic regions and Desert regions IAW OPORD (if applicable). ***EXCEPTION:*** Not applicable to transoceanic flights or when staging or transiting Elmendorf AFB.

6.2. Personal Requirements.

6.2.1. Passports. Carry a valid passport on all missions scheduled outside the CONUS (OCONUS). ***EXCEPTION:*** Unit commanders may authorize personnel who have applied for or submitted passports for renewal to act as crewmembers on missions not scheduled to transit locations where passports are required. PICs are responsible for ensuring passports (with applicable visas) are carried by crewmembers when required.

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

6.2.3. Driver's License. A valid state driver's license is required on each TDY where use of US government general purpose vehicles may be required. Crewmembers will contact the local airfield manager before driving on the flight line.

6.2.4. Identification Tags. Crewmembers will carry two identification tags (aka dog tags) on all flights.

6.2.5. FOD Hazards. Crewmembers will not wear wigs, hairpieces, rings, ornaments, or earrings in the aircraft or on the flight line. ***EXCEPTION:*** Crewmembers may wear elastic hair fasteners and/or pins, clips, earrings or barrettes (IAW AFI 36-2903) provided they do not interfere with the wearing of headsets, or the donning of oxygen equipment. They will be accounted for before and after flight.

6.2.6. Flight Gloves. All crewmembers should have Nomex gloves in their possession.

6.2.7. Flashlight. Each crewmember must carry an operable flashlight for night flights.

6.2.8. Headgear. Do not wear headgear that interferes with donning the oxygen mask or smoke goggles while performing crew duties.

6.2.9. Hearing Protection. Each crew member will have appropriate hearing protection available for the conditions encountered on the flight line.

6.2.10. Reflective Belts. Crew members will have reflective belts in their possession. These are to be used on the flight line between dusk to dawn (or as directed by local supplement).

6.2.11. Protective and Survival Gear. If required IAW applicable AOR guidance, the PIC will ensure appropriate crew members are equipped with protective gear (e.g. body armor, laser eye protection, etc.) and survival equipment (e.g. survival kit, escape and evasion kit, etc.).

6.2.11. **(89AW)** When the requirement exists for the aircrew to carry body armor on any 89 AW mission, the following procedures will be used to facilitate upload/download of the body armor on the aircraft.

6.2.11.1. **(Added-89AW)** All body armor for 1AS and 99AS aircrews will be uploaded on the aircraft NLT two hours prior to scheduled takeoff time by 89 OSS Aircrew Flight Equipment (AFE) personnel. 89 OSS/AFE is responsible for download of all body armor equipment upon return of the mission to Andrews AFB. The AFTO Form 46, *Prepositioned Life Support Equipment*, will be documented with the exact quantity and control numbers of the vests. The signature by the PIC or his/her designated representative on the Form 46 will be acknowledgement that the vests are onboard and serve as the official hand receipt for the aircrew. All aircrew members are encouraged to report to the AFE office as early as possible for body armor sizing if they have not previously been sized.

6.3. Pre-mission Actions.

6.3.1. Mission Planning and Airfield Review. The PIC is responsible for ensuring all mission planning, foreign clearance and en route support requirements are coordinated. Planning activities may be accomplished by contracted dispatch, flight management agencies or mission operations personnel. The PIC is ultimately responsible for validating all planning material prior to execution. The suggested mission planning review areas for aircrew and IFM/CDS/AMD include, but are not limited to:

6.3.1. **(89AW)** For all OCONUS missions, 89 OSS/OSOF is tasked with mission planning, preparing and sending electronic diplomatic request messages, and coordinating mission changes with CVAM, up to the point of mission execution. PICs should coordinate with 89 OSS/OSOF for any specific mission requirements as early as possible during the mission planning phase. Once a mission is in the execution phase, 89 OG/OGO is responsible for following 89 AW missions and coordinating any changes or aircrew requests with CVAM, 89 OSS/OSOF, Command Post, Maintenance and other agencies, as required.

6.3.1.1. Airspace/Airfield Review. Aircrews will use MAJCOM approved Unclassified But Sensitive Protocol Router (NIPR) and Secret Internet Protocol Router (SIPR) network websites. The AMC Aircrew Portal and theater-specific websites provide vital links to planning. Include FLIP, Flight Information Region (fir)/Upper Flight Information Region (uir)/Air Defense Identification Zone (adiz), aOR, and Jeppesen procedures as well as study of runways, taxiways, and ramp areas. Refer to paragraph 5.15 of this AFI for minimum runway and taxiway requirements. Check weight bearing capacities. Contact AMC/A3AS (Airfield Suitability), and/or Airfield Manager directly if airport capabilities are questionable. Check adequacy of parking space and if adverse weather is possible arrange for hangar space if available. Verify the availability of

aircraft stairs if required prior to mission departure. Check for DoD contract fueling/service/AGE availability prior to making any arrangements with airport facilities. If cold weather operations are expected, check snow removal and de-icing capabilities.

6.3.1.2. Airspace classifications, AMC Giant Report, ASRR, Airport Qualification & Familiarization Manual, and airport qualification videos (if available).

6.3.1.3. Theater Instrument Procedures. Required instruments and/or procedures for Non-DoD Approaches, International Civil Aviation Organization (ICAO) course reversal approaches, circling, holding, Non Directional Beacon (NDB) approaches, Host Nation/Jeppesen Approaches, and transition altitudes/altimeter setting procedures, terminal GPS coverage [Receiver Autonomous Integrity Monitoring (RAIM) check if applicable]. Notify appropriate MAJCOM Terminal Instrument Procedures (TERPS) office as soon as possible to request reviews of non-DoD procedures (unless using the host government-sanctioned FLIP product for airfields located in a Special Accredited Host Nation).

6.3.1.4. Oceanic/Organized Track Systems. Consult North Atlantic Minimum Navigation Performance Specification (MNPS) Airspace Operations Manual, FAA Oceanic NOTAMS, and FLIP AP series, to verify MNPS airspace, Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and North Atlantic and Pacific Region Track Systems requirements.

6.3.1.5. Communication and Emergency Procedures. FLIP AP series, FIH, C2, over-water position reporting, CPDLC procedures, lost communications procedures, emergency procedures, and weather information sources.

6.3.1.6. Border Clearance. Foreign Clearance Guide (FCG), Aircraft Clearance and Personnel Customs, Immigration, Agriculture, Insect and Pest Control, Diplomatic Clearance Log.

6.3.1.7. Flight planning. DD Form 1801, *DoD International Flight Plan*, Jeppesen Approach Plates and Charts, theater weather conditions, fuel reserves and alternate requirements, Extended Range Operations (EROPS) fuel requirements, MEL/MMEL dispatch restrictions, Equal Time Points (ETP)/critical wind factors, and NOTAMs [RAIM - GPS, Air Route Traffic Control Center (ARTCC), enroute and international NOTAMs].

6.3.1.8. Special Military Operations. Obtain Altitude Reservations (ALTRV), AOR procedures, SPINS, ATO's and review "Due Regard" procedures if applicable to the mission.

6.3.1.9. Other Regulatory Requirements. General navigation procedures, Life Support equipment, hazardous cargo, crew rest/crew duty time, aircraft records/AFTO 781, *ARMS Aircrew/Mission Data Document*, procedures, Mission Essential Personnel, passenger handling, etc.

6.3.1.9. **(89AW)** 89 AW missions do not normally involve carrying cargo. However, some DV parties may require hazardous cargo; i.e., a lithium battery waiver for SECDEF and CJCS missions. When waivers are granted to allow transportation of hazardous cargo with specific DV parties, the waivers will be published in the FCIF or FCB. If you

have other requests to carry hazardous cargo or cargo of which the hazard is not known, contact 89 OG/OGV through 89 OG/OGO for guidance.

6.3.1.10. Location Information. C2 reporting procedures, maintenance problems, aircraft security, embassy/consulate contacts, social customs, billeting, transportation, and cash billing.

6.3.2. Pre-Mission Planning. Pre-mission planning responsibilities include, but are not limited to the following:

6.3.2.1. Review tasking and itinerary. When mission confirms, contact the DV mission contact. Inform the on-board contact officer that excessive carry on baggage cannot be stowed in the passenger compartment. Confirm on-board communication requirements.

6.3.2.2. Review applicable OPORD, SPINS, ATO, Jeppesen products and DoD FLIP.

6.3.2.3. Foreign Clearance. Review the FCG and classified FCG. Ensure the planned itinerary can be flown in compliance with the provisions of the FCG. If not, obtain an exception to the FCG through the Defense Attaché Office (DAO) or State Department channels or coordinate an itinerary change. Start visa processing as soon as possible.

6.3.2.4. Flight Itinerary. Confirm itinerary times and prepare a flight itinerary. Itinerary leg times are block-to-block times (door closed to door open) and include time for taxi-out, takeoff, climb, descent, approach, landing, and taxi-in. After completion of planned computer flight plan (CFP), current operations/CDS/IFM will notify C2 if CFP + taxi block times are in excess of scheduled block times. Reference local supplement for unit standards and guidance for programmed (AVISOURCE, GDSS, etc) vs. CFP block times. Notify C2 and re-compute departure times to meet “hard” block times if requested. In all cases, ensure forecast winds, payload and drag factors are accurately assessed.

6.3.2.5. Messages. Advance notice and/or diplomatic clearance messages are required for all missions to destinations OCONUS, including flights to Alaska, Hawaii, and Puerto Rico. Exact requirements and addressees for each country are found in the FCG and classified FCG. See local supplement for additional unit guidance on message formats and procedures.

6.3.2.5.1. **(Added-89AW)** The PIC is ultimately responsible to ensure all messages have been reviewed and sent out. Message formatting and dispersal is accomplished by 89 OSS/OSOF.

6.3.2.6. Protection of DV foreign travel itineraries is required by DoD and USAF policy guidance. For unclassified missions operating outside the United States, US possessions, or Canada, do not include the name of the DV in unclassified messages or email. Make every effort to keep DV itinerary and trip itinerary separate to enhance OPSEC. See local supplement for security measures to transmit itinerary, hotel reservations and DV messages.

6.3.2.6.1. **(Added-89AW)** All requests from non-89 AW agencies or individuals for information pertaining to leg times, passenger capacities, aircraft performance capabilities, etc., will be referred to 89 OG/OGO and forwarded to CVAM. Do not discuss the availability of aircraft. Request for itinerary times or aircraft capabilities

received from CVAM will be processed by 89 OSS/OSOF. Do not release information about White House support missions to anyone, except members of the official party and 89 AW support agencies. The PIC is the single point of contact for information about passengers. Names of the official party are released only on a strict need-to-know basis. No one should discuss the DV itinerary or the purpose of the trip.

6.3.2.7. En Route Support. PICs are ultimately responsible to ensure en route support at all destinations. If applicable, ensure CDS/IFM/AMD/CAOC arrange en route support. For most OCONUS missions, arrange support by tasking the local Defense/Air Attaché by e-mail or AUTOMATED MESSAGE HANDLING SYSTEM (AMHS) message. For all CONUS missions (and as necessary for foreign missions), PICs will confirm destination support through CDS/IFM/AMD (as applicable). When a mission or portion of a mission is canceled or changed, the PIC is responsible for advising affected support agencies or attaches. 618th Tanker Airlift Control Center (TACC) is available for VIP support (USAFE/PACAF support provided by AMD and CENTAF support provided by CAOC).

6.3.2.8. Coordinate for worldwide FLIP, TAAD procedures and sufficient COMSEC materials for the duration of the mission.

6.3.2.9. Review anti-hijacking procedures (AFI 13-207, *Preventing and Resisting Piracy (Hijacking) (FOUO)*, and chapter 7 of this AFI).

6.3.2.10. Obtain terminal terrain charts for unfamiliar destinations, if available.

6.3.2.11. If applicable, release available seats to passenger terminal (See paragraph 6.51.1 of this AFI).

6.3.2.11. **(89AW)** Refer requests for information about seat release for space-available passengers to the PIC. Seats for space-available passengers may be released when official passengers are not on-board, unless carrying space-available passengers would adversely affect the mission.

6.3.2.12. Comply with the AMC Phoenix Raven Locations list for enroute aircraft security.

6.3.2.13. **(Added-89AW)** Do not grant interviews or provide information to members of the press or other media unless the interview has been approved by the 89 AW/CC or a designated representative. 89 OG/OGO can coordinate approval, if required. Military public affairs personnel at other bases may not be familiar with 89 AW media restrictions. Advise media representatives and public affairs personnel to contact 89 AW/PA. If 89 AW/PA decides to pursue the interview, they will obtain 89 AW/CC approval. When 89 AW/CC has approved an interview, 89 OG/OGO will advise the PIC.

6.3.3. Parking, Servicing, and Aircrew Requirements. The following should be considered when planning missions into certain locations:

6.3.3.1. Guard and Reserve Facilities. On missions to CONUS civil airports with a military facility (ANG/AFRC) capable of providing support, use the military facility; however, there are exceptions. If the mission will arrive or depart outside the normal operating hours of the military facility (nights, weekends, or holidays) use a civilian

facility (terminal, FBO ramp, etc.) provided you can arrange the necessary support. If the using agency requests use of a civilian facility in preference to an available military facility, use the civilian facility. If your DV party has a requirement to use the military facility, make arrangements to use the military facility. In general, avoid requiring ANG/AFRC units to work overtime in support of VIP Missions unless the using agency has a specific need to use the military facility or suitable support cannot be obtained from civilian sources.

6.3.3.2. Contract Servicing Agents. When you plan to use civilian facilities for parking or servicing, refer to the worldwide merchant directory for the Multi Service Card via **https://www.airseacard.com**. Use the government fuel contractor unless you cannot obtain the required services. If your mission requires parking away from the contracted fueling ramp, try to arrange trucking of fuel/servicing at the parking spot; don't plan to taxi to the contracted fuel ramp solely for refueling. Use approved government credit card if you must purchase fuel from other than the designated government contract vendor.

6.3.3.3. Border Clearance. Missions entering or departing the United States will normally use a regular or special foreign clearance base, a civil international airport of entry (AOE), or a landing rights aerodrome as specified in the FCG. Military inspectors at special foreign clearance bases are only authorized to clear aircraft participating in the special projects listed for each base in the FCG. When aircraft not participating in the approved special projects require clearance, the special foreign clearance base commander must obtain advance approval from US border clearance officials in order to clear the aircraft. Aircraft must not transit a special foreign clearance base for clearance unless advance approval is confirmed. If the mission requires, arrangements can be made to use any suitable CONUS airfield, but the PIC must coordinate border clearance inspections with all appropriate government agencies in advance. Refer to the FCG, classified FCG, and applicable AFIs.

6.3.3.4. Security Support. Standard message formats include security support. If RAVENs are assigned to the mission, the senior RAVEN NCO can assist in arranging support. However, security support arrangements are the PIC's responsibility. If additional aircraft security support and/or threat suppression is required, the PIC should contact the applicable tasking agency for assistance.

6.3.3.5. Aircrew Billeting. Crew integrity is a mission requirement. PICs must know where their crewmembers are at all times. Itinerary changes are common and often require immediate action by crewmembers. To provide crew control, all crewmembers should be billeted at the same facility at en route stops. The PIC must have a "class A" or equivalent phone in the room. The mission contact officer/escort and the CP controller must know the location of the crew and how to contact them. Crew integrity does not require the whole crew to be billeted together in a BOQ. "Billeted at the same facility" means billeted on the same base or at the same hotel complex; however, if the whole crew is not together, the EAC must have a room phone. When government quarters are available, but not suitable, use an AF Form 2282, *Statement of Adverse Effect - Use of Government Facilities*, to justify the non-use.

6.3.3.6. Cabin Service. Determine if meal/beverage service is desired. Arrange for the 1st FA to call the contact officer directly to coordinate menus and other cabin service requirements.

6.3.3.6.1. The PIC normally should not discuss meal requirements with the contact officer. If the mission flight attendant is not available, the PIC should ask the FA scheduler to make contact and pass on the requirements to the 1st FA.

6.3.3.6.2. Confirm payment arrangements for meals and beverage service. If charges will be billed, obtain the complete billing address. If a mission cancels (at the request of the using agency) after the FA has purchased supplies, the FA will advise the contact officer to the costs of all non-returnable items.

6.3.3.6.2. **(89AW)** If a mission cancels (at the request of the using agency) after the FA has purchased supplies, the using agency is normally responsible for the cost of passenger and aircrew supplies. The FA will return items, sell items to another aircrew, or sell-off as meals to minimize the cost to the using agency.

6.3.3.7. Advance Per Diem. Normally, advance per diem will not be paid to crewmembers, they are expected to use their government provided credit cards. When the mission requires an advance that is too large to reasonably collect from an automatic teller, the squadron administration section will assist in arranging advance per diem payments. On missions where substantial cash payments are anticipated for aircrew transportation and other incidental official crew expenses, the PIC will designate a transportation officer to receive an additional advance and be responsible for these payments. Refer to the Joint Federal Travel Regulation (JFTR) for information about per diem rates and procedures to follow when applying for special per diem allowances.

6.3.3.7.1. **(Added-89AW)** On missions where substantial cash payments are anticipated for fuel or fleet service activities, the PIC will designate a paying agent for the mission. That individual will be trained and certified, having a paying agent letter signed with appropriate signatures, and on file with finance. The paying agent should advise the Financial Services Office (FSO) DDO (Direct Dispersing Officer) cashiers cage, 2-6556, at least one day prior to pickup denoting amount, time of pickup, and denominations required.

6.3.3.7.1.1. **(Added-89AW)** Prior to departure, the paying agent will report to room E-100 of Building 1535 with a suitable container to carry the funds. For amounts greater than $7,500, an escort is required when leaving the vault. The escort can be a member from security forces or another crewmember.

6.3.3.7.1.2. **(Added-89AW)** If mission departure is on a non-duty day and funds required are greater than $7,500, attempt to coordinate for DDO to deliver funds directly to paying agent prior to departure. This precludes funds storage issues.

6.3.3.7.1.3. **(Added-89AW)** On the return leg to Andrews, contact the DDO, (after hours coordinate contact through the Command Post) and ensure the DDO is available for the return of funds on arrival.

6.3.3.7.1.4. **(Added-89AW)** Further information on the protection of funds and responsibilities as paying agent are contained in DOD 7000.14-R, *Department of*

Defense Financial Management Regulations, Volume 5, *Disbursing Policy and Procedures,* Chapter 3.

6.3.4. Other planning factors:

6.3.4.1. The SOC serves as POC between current operations, mission execution authority, and crewmembers. Contact unit SOC for coordination with current operations or mission execution authority during mission planning and itinerary changes.

6.3.4.2. All VIP Missions are considered "FOR OFFICIAL USE ONLY" and crewmembers will not discuss the mission or any DV information with anyone without a need to know. Unclassified missions may be designated "CLOSE HOLD". In this case, certain mission details are restricted from normal release to military/non-military agencies/contracted dispatch. Clarify the applicable restrictions with unit C2 centers and mission execution authority prior to any mission planning or coordination activities.

6.3.4.2.1. **(Added-89AW)** The following operating procedures apply to all CVAM-directed Close Hold missions. They define operating procedures for CLOSE HOLD Level 1, 2, and 3 designations. Missions will not have any passenger information loaded while TENTATIVE. Information will usually not be released by CVAM. CLOSE HOLD level will be input on itinerary by CVAM. “Trusted agents” are 89 OSS/OSOF, 89 OG/OGO Duty Officer, PIC, and 89 AW Wing and OG leadership only. Any others require CVAM approval.

6.3.4.2.1.1. **(Added-89AW)** CLOSE HOLD Level 1.

6.3.4.2.1.1.1. **(Added-89AW)** Passenger information and using agency are releasable to “trusted agents” via secure communications or approved messaging system.

6.3.4.2.1.1.2. **(Added-89AW)** No passenger information is input into Avisource until the trip returns to Andrews.

6.3.4.2.1.1.3. **(Added-89AW)** DV name is not releasable on message traffic other than as needed for overflight/landing clearance, then only via secure communications or approved messaging system.

6.3.4.2.1.1.4. **(Added-89AW)** Two hours prior to departure:

6.3.4.2.1.1.4.1. **(Added-89AW)** Mission is loaded into GDSS by Command Post.

6.3.4.2.1.1.4.2. **(Added-89AW)** TACC Senior notified of mission itinerary and GDSS number ONLY via secure communications by Command Post.

6.3.4.2.1.1.5. **(Added-89AW)** Passenger information is not releasable to other than “trusted agents” without CVAM/contact approval.

6.3.4.2.1.1.6. **(Added-89AW)** Itinerary is not releasable on 89 OG/OGO reports.

6.3.4.2.1.2. **(Added-89AW)** CLOSE HOLD Level 2.

6.3.4.2.1.2.1. **(Added-89AW)** Passenger information and using agency are releasable to “trusted agents” via secure communications or approved

messaging system.

6.3.4.2.1.2.2. **(Added-89AW)** DV name is not releasable on message traffic other than as needed for overflight/landing clearance, then only via secure communications or approved messaging system.

6.3.4.2.1.2.3. **(Added-89AW)** One calendar day prior to departure:

6.3.4.2.1.2.3.1. **(Added-89AW)** Mission is loaded into GDSS by Command Post.

6.3.4.2.1.2.3.2. **(Added-89AW)** TACC Senior notified of mission itinerary and GDSS number ONLY via secure communications by Command Post.

6.3.4.2.1.2.3.3. **(Added-89AW)** Passenger code and using agency input into Avisource.

6.3.4.2.1.2.3.4. **(Added-89AW)** Passenger information and using agency releasable to TACC Senior via secure communications.

6.3.4.2.1.2.4. **(Added-89AW)** Itinerary is not releasable on 89 OG/OGO reports.

6.3.4.2.1.3. **(Added-89AW)** CLOSE HOLD Level 3.

6.3.4.2.1.3.1. **(Added-89AW)** Passenger code and using agency loaded when mission confirms.

6.3.4.2.1.3.2. **(Added-89AW)** DV name is not releasable on message traffic other than as needed for overflight/landing clearance, then only via secure communications or approved messaging system.

6.3.4.2.1.3.3. **(Added-89AW)** One duty day prior to mission departure:

6.3.4.2.1.3.3.1. **(Added-89AW)** Mission loaded into GDSS.

6.3.4.2.1.3.3.2. **(Added-89AW)** Passenger information and using agency releasable to TACC Senior via secure communications.

6.3.4.2.1.3.4. **(Added-89AW)** Itinerary is not releasable on 89 OG/OGO reports.

6.3.4.3. Confirm the aircraft tail number with the contact officer. Obtain the contact officer's home/cell telephone number and provide him/her with the PIC's home/cell telephone number. Notify unit C2 if the contact's name or phone number is different from the one listed with the SOC/CP printout.

6.3.4.4. Prearrange your pre-departure weather briefing (DV weather package, "social", etc.) IAW local supplement. Provide all details needed to prepare your weather briefing. Do not request (DV weather package, "social", etc.) for "CLOSE HOLD" missions.

6.3.4.5. VIP aircrews will prearrange special communications support as follows:

6.3.4.5.1. High Frequency Global Communications System (HFGCS, formerly known as Mystic Star)/Andrews Very Important Person (VIP) HF support is required for all missions transporting the Secretary of Defense. HFGCS support is also available on a priority basis for aircraft transporting the Vice President, cabinet

members, service secretaries, and service chiefs of staff. When HFGCS/Andrews VIP support is required, the CSO will ensure appropriate agencies are notified. Last minute requests at crew show time are not acceptable. For alert missions, the PIC will request the unit CP or AMD controller to arrange coverage.

6.3.4.5.2. FM radio support is provided by the White House Communications Agency (WHCA) IAW established priorities.

6.3.4.5.3. Current procedures for use of the HFGCS network and the WHCA FM networks are described in the 89 OG/CC Special Communications Support Procedures Package available in each mission kit and at the SOC.

6.3.4.5.4. Denial of service from Andrews Airways. When denied service from Andrews Airways due to higher priority traffic and the aircraft is working another airways station, inform 89 AW CP which station you are working.

6.3.4.5.5. Denial of service from WHCA. When denied service from WHCA on White House missions with a Secure Communications Required profile, notify SOC and advise them to contact current operations and CVAM immediately.

6.3.4.5.6. Prior to transiting an AOR with special communication requirements, the PIC should contact the unit Intelligence or Tactics office for AOR communication plan and, as applicable, ATO integration.

6.3.4.5.7. CSOs will need to coordinate with Commercial Satellite Service Providers via the Government Network Operations Center (GNOC) IAW paragraph 14.3 of this AFI for accessibility to the Executive Airlift Communications Network (EACN).

6.3.4.5.8. Crews will notify contact officer of aircraft capabilities and the costs associated with the respective systems.

6.3.4.6. Arrange for spare parts as required. PICs on extended overseas missions to areas where support facilities are limited may request certain spares be issued for a particular trip. Coordinate requirements with C2 agencies and maintenance control personnel.

6.3.4.7. **(Added-89AW)** Air Force Two (AF2) and First Lady (FLOTUS) Mission Planning. The need for current airfield information for AF2 and FLOTUS missions is critical. When the mission confirms, the assigned aircrew will confirm the ramp contact phone numbers, the commercial phone requirements, and the exact parking locations at all scheduled airports with the contact/Milaide and/or WHCA. Update applicable information in Avisource. This requirement must be completed at the earliest possible date. Agencies outside the wing use this information to plan and monitor missions.

6.3.5. Not Used.

6.3.6. Itinerary Coordination. Use the following procedures when confirming and planning itinerary details:

6.3.6.1. Preposition for DV pickups. Plan to preposition for DV pickups two hours prior to the scheduled departure time (or as directed by local supplement/directives). PICs may request to preposition the night prior to an early morning pickup depending on aircraft and crew availability. Early preposition may also be requested to allow adequate crew

rest prior to an extended crew duty day. Coordinate request for early preposition with unit C2.

6.3.6.1. **(89AW)** Coordinate request for early preposition through unit SOC and 89 OG/OGO.

6.3.6.2. Configurations. Aircraft configuration requirements originate with the mission execution authority through unit C2. If the using agency requests a change in the configuration shown on the mission printout, the contact officer must coordinate with CVAM/AMD. PICs cannot accept aircraft configuration changes directly from the using agency. Advise the contact officer to coordinate with the mission execution authority and notify unit C2 of the pending request.

6.3.6.3. Manifest Information. The PIC will coordinate with the contact when manifested passengers are not present at departure time. PICs shall designate a crewmember to review manifests for accuracy prior to mission departure. PIC's will not depart without primary DV onboard unless authorized by C2.

6.4. Aircrew Publications Requirements. As a minimum, PICs will carry current copies of AFI 11-202V3 and this AFI on all flights. Additionally, the PIC will ensure the aircraft has a complete set of current FCMs. All must be readily available in the cockpit during all phases of flight. MAJCOM/A3 with mission execution authority approval is required to use electronic publications in lieu of paper manuals. All other crew positions must carry the appropriate abbreviated checklists. Additional individual aircrew publications requirements will be specified in local supplements.

6.4.1. **(Added-89AW)** PICs are responsible for ensuring the completeness and currency of all publications maintained on the aircraft. Units will develop a process for maintaining publications on the aircraft. Navigators, CSOs, and C-20/C-37/C-32/C-40 FAs will carry the abbreviated checklists for their respective aircrew position (carry at least one copy per aircrew position).

6.4.2. **(Added-89AW)** The following publications will be maintained in hard-copy on 89 AW aircraft:

6.4.2.1. **(Added-89AW)** Aircraft Flight Manual.

6.4.2.2. **(Added-89AW)** Aircraft Operating Manual, Dash -1, Boeing Operations Manual, etc.

6.4.2.3. **(Added-89AW)** Aircraft Performance Manual, 1-1, FPPM, etc.

6.4.2.4. **(Added-89AW)** Abbreviated checklists.

6.4.3. **(Added-89AW)** AFI 11-202V3 and AFI 11-2VIPV3 may be maintained on the aircraft in either paper format, or electronically through the use of a mission laptop. IAW HQ AMC policy, the mission laptop must be certified for use and readily available in all phases of flight. If the publications are not maintained on the aircraft or on a suitable mission laptop, PICs will ensure they carry current copies of AFI 11-202V3 and AFI 11-2VIPV3.

6.5. Airfield Review. All crewmembers will review Airport Qualification and Familiarization Manuals, audiovisual slide tape programs and review any certification airfields available prior to departure. In addition, aircrews will review appropriate websites, (e.g. AMC Aircrew Portal,

CENTAF AOR CAOC) for all restrictions and certification policies for a particular airfield. Contact MAJCOM Airfield Suitability and Analysis Branch for all questions pertaining to airfield weight bearing and suitability prior to all off-station operations. Airfield suitability waivers must be coordinated through unit Stan/Eval to MAJCOM/A3 with mission execution authority for approval. The OG/CC or equivalent may waive the airfield certification requirement (special aircrew certification).

6.5.1. **(Added-89AW)** Special Pilot-in-Command Airports. "SPECIAL PIC APT" is used to designate Special PIC Airports in the ASRR. Airfields are considered for designation as Special Pilot-in-Command Airports based upon aircrew and safety recommendations, or classification as a FAA Special Pilot In Command Qualification Airport. Refer to the ASRR for specific guidance regarding Special PIC Airports.

6.6. Aircrew Intelligence Briefing and Tactics Support. Before leaving home station on missions traveling OCONUS (except Alaska and Hawaii), crews will receive an intelligence briefing that will emphasize terrorist, enemy, and friendly political and military development in the area in which they will be flying. Crews must also receive an intelligence brief prior to entering specific AOR. As a complement to the intelligence briefing, the PIC should review and coordinate necessary tactics with the theater and/or unit Tactics office. In theater, aircrews should receive intelligence updates on initial arrival at a forward operating location, or en route stop, and thereafter when significant developments occur. Report information of possible intelligence value to the local intelligence officers as soon as possible to ensure timely dissemination of mission reports (MISREP). In addition, the PIC should provide the Tactics office with feedback on tactical considerations.

Section 6B—Pre-departure

6.7. Not Used.

6.8. Flight Crew Information File (FCIF) Procedures.

6.8.1. Review FCIF, volume 1 (index and safety-of-flight files, 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 or as specified.

6.8.1. **(89AW)** Before each mission or local training flight, 89 AW aircrews will document review of required FCIF items through PEX, initialing AMC Form 396, *FCIF Currency Record*, or initialing aircrew flight orders when PEX or Form 396 is not used/available.

6.8.2. 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; the instructor pilot should initial the general's FCIF card.

6.8.3. 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 the flight authorization.

6.8.4. Squadrons are responsible for ensuring TDY aircrews receive newly released FCIFs which may result in mission impact.

6.9. Flight Crew Bulletins (FCB).

6.9.1. FCBs are issued under provisions of AFI 11-202V2 and MAJCOM supplements. Operations Group Stan/Eval will be the Office of Primary Responsibility (OPR) for FCBs. Items in FCBs may include local supplement and policies concerning equipment and personnel generally not found in any other publications.

6.9.2. All crewmembers should be cognizant of FCB contents.

6.10. Mission Kits. Carry mission kits (hard or electronic copy) on all operational missions. Mission kits will contain all forms and publications necessary for safe and efficient conduct of the mission. Squadron stan/eval will determine and publish the contents of the mission kit/mission computer by specific MDS aircraft type. Suggested items include:

6.10.1. Publications.

6.10.1.1. AFI 11-401, *Aviation Management.*

6.10.1.2. DESC-I-31 (Defense Energy Support Center Interim Policy Guidance), *Purchase of Aviation Fuel and Services at Commercial Locations* (previously AFI 23-202, *Buying Petroleum Products and Other Supplies and Services Off-Station)*.

6.10.1.3. AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials.*

6.10.1.4. AMCI 11-208, *Tanker/Airlift Operations* (AMC/AMC-gained aircrew only).

6.10.1.5. AFI 31-104, *Air Force RAVEN Program* (including appropriate MAJCOM supplements).

6.10.1.6. Airfield Suitability and Restrictions Report (ASRR).

6.10.1.7. AMC Aircrew Border Clearance Guide.

6.10.1.8. Flight Crew Bulletin (FCB).

6.10.1.9. ATP-56, *NATO Air to Air Refueling* (VC-25 only).

6.10.2. Forms.

6.10.2.1. DD Form 175, *Military Flight Plan*

6.10.2.2. DD Form 1351-2, *Travel Voucher or Sub-voucher*

6.10.2.3. DD Form 1351-2c, *Travel Voucher or Sub-voucher (Continuation Sheet)*

6.10.2.4. DD Form 1801, *DoD International Flight Plan*

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

6.10.2.6. DD Form 2131, *Passenger Manifest*

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

6.10.2.8. AF Form 457, *USAF Hazard Report*

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

6.10.2.10. AF Form 711B, *USAF Mishap Report*

6.10.2.11. AFTO 781, *ARMS Aircrew/Mission Flight Data Document*

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

6.10.2.13. AF Form 2282, *Statement of Adverse Effect - Use of Government Facilities*

6.10.2.14. AF Form 3211, *Customer Comments*.

6.10.2.15. AF Form 4031, *CRM Skills Criteria Training/Evaluation*

6.10.2.16. AF Form 4075, *Aircraft Load Data Worksheet*

6.10.2.17. AF Form 4085, *Mission Expense Record*

6.10.2.18. AMC Form 22, *AMC Passenger Survey*

6.10.2.19. AMC Form 43, *AMC Transient Aircrew Comments*

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

6.10.2.21. AMC Form 97, *AMC In-Flight Emergency and Unusual Occurrence Worksheet*

6.10.2.22. AMC Form 196, *Aircraft Commander's Report on Crewmember*

6.10.2.23. Customs Form (CF) 6059B, *Customs Form*

6.10.2.24. Customs Form (CF) 7507, *General Declaration (Outward/Inward) Agriculture, Customs, Immigration, and Public Health*

6.10.2.25. H.M.S. Customs Declaration.

6.10.2.26. Japanese Customs Declaration.

6.10.3. Orders.

6.10.3.1. DD Form 1610, *Request and Authorization for TDY Travel of DoD Personnel*

6.10.3.2. AF Form 1631, *NATO Travel Order/Ordre De Mission OTAN* (when required).

6.10.3.3. AMC Form 41, *Flight Authorization*

6.10.4. MAJCOM approved Computer Programs.

6.10.4.1. Weight and Balance Software

6.10.4.2. Flight Planning Software

6.10.4.3. Performance Software.

6.10.5. Miscellaneous

6.10.5.1. Box car seals.

6.10.5.2. Masking Tape. ***NOTE:*** The PAG/CC determines the contents for PAG mission kits. Refer to MAJCOM or local supplement for mission additional kit contents.

6.11. Route Navigation Kits. The PIC and navigator, if applicable, are jointly responsible for the contents of route navigation kits. Kit contents are determined by the mission itinerary. Include all publications, charts, and forms required to fly the mission and comply with all FLIP and FCG requirements. Route navigation publications, charts, and forms for areas of routine operations may be kept on the aircraft. PICs will verify the currency of route navigation publications prior to departure from home station.

6.11.1. Aircraft Route Navigation Kits. The route navigation kits maintained on each aircraft include sufficient FLIP charts, approach booklets, Standard Instrument Departures (SID)/Standard Terminal Arrival Routes (STAR) and supplements for any local or OCONUS mission. Aircrews without a navigator position will carry and maintain only one set of enroute charts, one set of DoD area arrival charts, and one IFR supplement. Two sets of enroute charts/DoD area arrival charts are authorized for those aircraft maintaining a navigator position. Units issuing laptops to aircrews with updated electronic FLIP planning documents do not have to issue paper versions. Specific unit procedures are in local supplement.

6.11.1.1. **(Added-89AW)** Assemble a worldwide publications kit containing all of the current DoD and commercial products required for the trip. Aircrews must properly sign out Jeppesen Publications kits stored in 89 OSS/OSOF. Upon return to home station, return all publications to 89 OSS/OSOF and ensure the Jeppesen products are properly signed back in.

6.12. Briefing Requirements.

6.12.1. Pre-mission Briefings. Before departing home station, the PIC will schedule and conduct a pre-mission briefing. The PIC will brief crewmembers on all aspects of the mission using OG/OGV or unit stan/eval developed and approved briefing guides, omit items that do not apply. As a minimum, at least one person from each crew position will attend the pre-mission briefing.

6.12.1.1. The necessity of pre-mission briefings for short notice, standby/alert, or one day missions will be at the PICs discretion. In this case, ensure all required information has been passed to the appropriate crewmembers.

6.12.1.2. Use the following checklist as a guide for home station pre-mission briefings:

6.12.1.2.1. Mission Requirements. Mission number, aircraft number, DV name and title, passenger load, itinerary, departure time and crew reporting.

6.12.1.2.2. Intelligence. Political/military situation, airfield threat/security situation, terrorist or other threat advisories.

6.12.1.2.3. Tactics. If required IAW Intelligence briefing and/or AOR guidance, review applicable AOR/airfield procedures and AFTTPs with crew members.

6.12.1.2.4. Special Requirements. Honors arrivals/departures, press, special FCG requirements, and special immunizations.

6.12.1.2.5. Personal Requirements. Aircrew uniform/civilian clothing, passports, shot, records, FCIF review, billeting arrangements, protective/survival gear.

6.12.1.2.6. Normal Procedures. Cockpit discipline, communication with DV party, (only PIC will brief contact officer on mission details, block times, adverse weather, etc.), aircraft cleanliness, student responsibilities, aircrew transportation (transportation officer), aircrew baggage security, un-manifested packages, sabotage/stowaway surveillance, hijacking, aircraft security, and surveillance for narcotics.

6.12.1.2.7. Emergency Procedures. As a minimum, discuss general communication and provide scenario discussion for Emergency Procedures pertaining to the mission. The PIC and FA (First FA for multi-FA crew) will verbally agree on the "Signal to Brace" call and "Signal to Evacuate" call during the pre-mission crew brief.

6.12.1.2.8. Crew Duties and Responsibilities. Designate EAC and review duties (supervision, crew location during crew rest, communication on mission changes). Designate crewmember responsible for passports, trip/NAV/Crypto kits, etc. FA duties include cabin service requirements, crew meals, and crew payment arrangements. RAVEN duties include duty schedule, review aircraft access policies, brief FCG firearms restrictions. FCC duties include fuel loads, aircraft configuration, and en route maintenance. If transiting a threat environment, review and assign specific lookout doctrine and combat entry and exit checklist duties to appropriate crew members.

6.12.1.2.9. Crew Conduct. Review personal conduct in foreign areas and personal article security on aircraft.

6.12.2. En Route Briefings. Conduct crew briefings en route as required. Prior to entering crew rest, the PIC will brief the crew on the requirements for the next mission leg. Route and leg briefings should be conducted for every leg prior to departure with applicable crewmembers or a designated representative for each crew specialty. PICs should keep on-board contacts informed of mission specifics, changes, problems, etc. Use the following checklist as a guide for en route briefings:

6.12.2.1. Crew contact procedures during crew rest.

6.12.2.2. Departure time.

6.12.2.3. Crew reporting time and place (transportation arrangements).

6.12.2.4. Fuel load.

6.12.2.5. Uniform changes, if applicable.

6.12.2.6. FA cabin service requirements.

6.12.2.7. Aircraft security requirements.

6.12.3. CP Briefings. At show time, the PIC or designated crew representative should contact the Unit CP or AMD prior to departure for any last minute changes, aircraft status or crew/passenger messages.

6.12.4. Weather Briefings. See AFI 11-202V3 requirements. Obtain a briefing on current weather, trends, and forecasts for the proposed route, destination, and alternates. The weather briefing may be documented on a DD Form 175-1, *Flight Weather Briefing*, AMC Form 181, *AMC Mission Weather Briefing*, IFM/Contract Dispatch crew paper weather briefing, or other MAJCOM approved form. ***EXCEPTION:*** Verbal weather briefings are acceptable for local area training missions.

6.12.4.1. Approved weather sources. US Military weather services, FAA-approved (Dispatch, Jeppesen, Flight Service, etc.), or any host nation civil or military weather source are considered approved weather sources.

6.12.5. NOTAM information is permitted from the following sources: US Military services, any FAAapproved source (Dispatch Services, Jeppesen, Flight Service, etc.), or any host nation civil or military source.

6.12.6. Buffer Zone. Prior to operating an aircraft within or adjacent to an established buffer zone, the PIC will ensure primary crewmembers are briefed on current buffer zone procedures outlined in appropriate directives.

6.12.7. Peacetime and Wartime SAFE PASSAGE Procedures. Pilots must be familiar with peacetime and wartime safe passage of friendly military aircraft (if applicable).

6.12.8. Intelligence and Tactics. Receive an updated intelligence briefing and, if appropriate, update the crew on changed intelligence reports and associated tactics.

6.12.9. **(Added-89AW)** SECURE LAUNCH. Secure launch countries are identified by the AMC Threat Working Group and will be briefed to aircrews prior to departure. They include countries with: a high terrorism level, an environment for rapid disintegration of stability, and/or an extremely poor security environment. The PIC will coordinate with 89 OG/IN to ensure secure launch destinations are identified. Ensure compliance with the following guidance.

6.12.9.1. **(Added-89AW)** Four hours prior to a secure launch departure, the Andrews Command Post will contact the TACC Senior Controller for the current status of the secure launch airfield. If operations are normal, this information will be passed to the aircrew when they check-in, 1-2 hours prior to departure. If the TACC Senior Controller reports a change in status, the Andrews Command Post will notify 89 OG/OGO immediately. 89 OG/OGO will coordinate with the OG/CC to determine if the mission can move as scheduled. The final go/no-go determination will be made by the 89 AW/CC in consultation with the 89 OG/CC, AMC Threat Working Group, and the PIC.

6.12.9.2. **(Added-89AW)** In some extreme cases, the 89 OG/CC may direct the PIC to contact either the Andrews Command Post or the Defense Attaché Office at the arrival location, 1-2 hours prior to block time, for a final update.

6.13. Call Signs.

6.13.1. During radio transmissions, crews use filed ATC call sign. Reference local supplement for local unit call signs.

6.13.2. For OPSEC and tactical purposes, the PIC may coordinate for call sign change with applicable C2.

6.13.3. All call sign changes will be accomplished IAW AFI 33-217, *Voice Call Sign Program.*

6.13.4. **(Added-89AW)** Refer to Table 6.3. to determine static voice call signs for all local training missions, functional check flights, and depot-level maintenance inputs/outputs.

Table 6.3. 89 AW Static Voice Call Signs.

CALL SIGN	TYPE AIRCRAFT	TAIL NUMBER
VENUS 01	PRESIDENTIAL	28000
VENUS 02	PRESIDENTIAL	29000
VENUS 21	C-20	60201
VENUS 22	C-20	60202
VENUS 23	C-20	60203
VENUS 24	C-20	60204
VENUS 26	C-20	60206
VENUS 30	C-40	10040
VENUS 31	C-40	10041
VENUS 40	C-37	70400
VENUS 41	C-37	70401
VENUS 42	C-37	90402
VENUS 44	C-37	90404
VENUS 65	C-37	60500
VENUS 95	C-37	90525
VENUS 91	C-32	80001
VENUS 92	C-32	80002
VENUS 93	C-32	90003
VENUS 94	C-32	90004

6.14. Instrument Flight Rules. Conduct flight operations under IFR to the maximum extent possible without unacceptable mission degradation. ***EXCEPTION:*** On training flights, VFR flight rules, VFR terminal area procedures, and visual patterns will be reviewed, practiced and de-briefed to ensure aircrew VFR flight proficiency and knowledge of VFR procedures and rules are maintained.

6.15. Flight Data Verification.

6.15.1. Aircrews should acquaint themselves with the mission and individual sortie requirements to ensure successful mission accomplishment. Wing, group and squadron staff should monitor crew activity and be available to resolve problem areas.

6.15.2. Only MAJCOM approved CFPs are to be used for aircraft operations. Approved flight planning programs include Advanced Computer Flight Plan (ACFP), Jeppesen, PFPS, and those used by CDS. Every effort should be made to ensure each mission segment has the current wind data.

6.15.3. Flight crews may manually compute flight plans. However, CFPs should be utilized to the maximum extent practical. The flight crew has final responsibility for accuracy of the flight plan used.

6.15.4. Flight crews will verify diplomatically-cleared route and fuel computation for accuracy prior to departure. Range summary charts should be used to confirm CFP fuel burn rates.

6.15.5. TOLD will be verified IAW the FCM. As a guide, at least two crewmembers should verify data entry into the FMC/FMS. Use of MAJCOM approved contracted performance programs is authorized.

6.15.5.1. **(Added-89AW)** MAJCOM-approved performance programs include AFMATIC for Gulfstream aircraft, and all programs derived from Boeing Performance Software (BPS), such as: Boeing Laptop Tool (BLT), On-Board Performance Tool (OPT), and Aero Data.

6.16. Departure Planning. Use AFI 11-202V3, AFMAN 11-217V1, AFMAN 11-217V3, this chapter, and the appropriate MAJCOM supplements. Regardless of the type of departure flown (IFR/VFR), review the following (as appropriate): IFR Departure Procedure, instrument approach plate, NOTAMs, GDSS/GDSS2, ASRR Giant Report and suitable terrain charts. ***NOTE:*** One Engine Inoperative (OEI) climb performance calculations IAW procedures contained in FCMs is deemed by AFFSA to comply with the requirements of AFI 11-202V3, paragraph 8.7.2.2.

6.16.1. VFR Departures. ***NOTE:*** VFR departures will not be flown in lieu of obstacle clearance planning.

6.16.1.1. VFR departures are authorized when there is no authorized IFR departure method for the airport, when the aircraft cannot depart using one of the IFR departure methods contained in AFI 11-202V3 and AFMAN 11-217V1, when operational requirements dictate (i.e. tactical necessity), or when most of the mission is planned as a VFR flight for training. VFR departures require detailed planning to ensure obstacles and high terrain are avoided.

6.16.1.2. The minimum climb performance for VFR departures is determined by ensuring all the following conditions are met:

6.16.1.2.1. All-engine climb capability ensures obstacle avoidance along the departure route.

6.16.1.2.2. OEI climb capability shall ensure departure or emergency return route provides obstacle avoidance. ***NOTE:*** If unable to comply with any of the above conditions, download cargo/fuel or delay until conditions that are more favorable exist.

6.16.1.3. Refer to FLIP for host nation VFR requirements before flying VFR outside of CONUS.

6.16.1.4. When departing VFR, maintain VFR cloud clearances until obtaining an IFR clearance or reaching the IFR MEA.

6.16.2. IFR Departures: Aircrews must use an approved IFR departure method as outlined in AFI 11-202V3 and AFMAN 11-217V1.

6.16.2.1. If the airport does not have an authorized IFR departure method, depart VFR IAW paragraph 6.16.1. of this AFI An IFR departure is not authorized at airfields without an instrument approach.

6.16.2.2. IFR departures require detailed planning to ensure obstacles and high terrain are avoided. Adhere to screen height/departure end of runway (DER) requirements for IFR departure planning in AFMAN 11-217V1.

6.16.2.2.1. Runway End Crossing Height or Screen Height is the aircraft‘s required AGL altitude at the Departure End of the Runway (DER). The OCS slope begins at the DER at the runway end crossing height. Determining and complying with the proper runway end crossing height is crucial to preventing unsafe operations below the OCS. Runway end crossing heights vary depending on location of the airport, who designed the procedure, terrain, obstacles, etc. The parenthetical notation at the top of DoD approach plates cannot reliably be used to determine what rules were used to produce a departure procedure and screen heights are not consistently published in the ODP section of the approach plates. USAF pilots will only consider the type of airfield when determining runway end crossing height: USAF/USN non-joint-use and all others (Civil/Joint Use/ICAO/NATO/etc.). Consult the IFR Supplement or other appropriate FLIP for this information. Joint use airfields will be annotated as “MIL/CIV”. If an airport is listed as an AFB or NAS and does not include “MIL/CIV” in the listing, then it is non-joint-use.

6.16.2.2.1.1. USAF/USN non-joint-use bases: The OCS at USAF and USN bases normally begins at zero feet AGL at the DER, but the OCS may be raised as much as 35 feet in order to clear obstacles. If the TERPS specialist raises the OCS, it will be published in the ODP. At non-joint-use USAF or USN bases, assume a zero foot runway end crossing height unless a higher altitude is published.

6.16.2.2.1.2. Other than USAF/USN non-joint-use bases (Civil/ICAO/NATO/etc.): If civil aircraft certification standards mandate, or obstacles penetrate the OCS, TERPS may raise the runway end crossing height up to 35 feet to maintain a normal 200‘/NM climb gradient. There is no reliable way, from looking at the DoD/NACO FLIP, to know if TERPS raised the OCS or not. Therefore, for any departure at other than non-joint-use USAF or USN bases, if the screen height is not published in the ODP or other reliable source, pilots will plan to cross the DER at or above 35 feet.

6.16.2.2.1.2.1. There is no provision for a runway end crossing height greater than 35 feet. If a runway end crossing height of 35 feet does not eliminate all penetrations of the 40:1 OCS, then a higher than standard (i.e. >200 ft/NM) climb gradient will be published on the departure.

6.16.2.2.1.2.2. If in doubt, or the 35 foot restriction limits mission capability, contact the appropriate TERPS authority for the airfield. If further help is required, contact the USAF Instrument Procedures Center at DSN 339-8300 or commercial (405) 739-8300.

6.16.2.2.1.3. Special Departure Procedure (SDP): Published on SDP.

6.16.2.3. Aircraft must meet the published climb gradient for the departure runway with all engines operating. If no minimum climb gradient is published, 200 ft/nm will be used. ***NOTE:*** In the event the aircraft is unable to meet the published ALL ENGINE climb gradient, download cargo/fuel or delay until more favorable conditions exist.

6.16.2.4. Use one of the following methods to ensure the aircraft can vertically clear all obstacles along the planned departure route with OEI:

6.16.2.4.1. Special Departure Procedures (SDP). HQ AMC/A3V (lead command) authorizes the use of Jeppesen or CDS provided SDP's for VIP Aircraft. SDP's utilize worldwide obstacle database criteria to calculate OEI emergency gross weights, flap settings, and provide escape routing. SDP's and associated OEI obstacle routings (Takeoff Procedures) provide optimum dispatch takeoff weights at specified departure locations. Each must be specifically designed for your MDS. SDP's must be current. If obstacle NOTAM affects SDP routing, do not use the SDP. Aircrew must use the FCM and/or computer based performance tools for OEI departure planning. Verify aircraft OEI climb gradient will clear all obstacles along the planned flight path. ***NOTE:*** Use of SDP's as alternate departure routing (no emergency) is not authorized.

6.16.2.4.2. Minimum climb gradient. The TERPS standard minimum climb gradient is 200 ft/nm, which is based on the standard obstacle clearance surface (OCS) of 152 ft/nm plus the required obstacle clearance (ROC) of 48 ft/nm. If an SDP is not available, the crew must ensure compliance with any obstacle-based minimum climb gradients for the selected departure, with OEI. Minimum climb gradients may be published as a 'Trouble T' restriction in the IFR Take-off Minimums section of FLIP or on a SID. When required for mission accomplishment, crews may subtract 48'/nm from published climb gradients before computing OEI takeoff data. Minimum climb gradients do not take into account low, close in obstacles (obstacles or terrain 200' AGL and below) which should normally be published as a NOTE on the SID or IFR departure procedure (Trouble T). Crews must also ensure the aircraft can clear these close in obstacles. ***NOTE:*** If the requirements of paragraph 6.16.2.4 of this AFI cannot be met, download cargo/fuel or delay until more favorable conditions exist.

6.16.3. Tactical Departure Procedures. If transiting an AOR and airfield with TAAD procedures, the PIC should review these procedures and apply tactics IAW applicable AFTTPs.

6.17. Weather Minimums for Takeoff. Departures with weather below landing minimums are authorized IAW AFI 11-202V3, chapter 8. When weather is below approach and landing minimums (ceiling and visibility), a departure alternate is required (see paragraph 6.19. of this AFI).

Table 6.1. Takeoff Weather Minimums.

Mission	Visibility	Remarks
Operational *(Note 2)*	RVR (Runway Visual Range) 600 (200 meters)	When less than RVR 1600, but equal to or greater than RVR 600, the crew may take off if mission priority dictates, provided the runway has a minimum of 2 functioning RVR readouts (minimum RVR 600 on all functioning readouts) and runway centerline lighting is operational. When 3 transmissometers are installed, all are controlling.

All Others *(Note 1)*	RVR 1600 (490 meters)	For runways with more than one operating RVR readout, RVR must read 1600 minimum on all.

NOTES:

1. In the absence of RVR readouts, reported visibility will be no lower than 1/2SM (800 meters).

2. If the runway has only one functional RVR readout or no centerline lighting, the minimum RVR is 1600.

6.18. Alternate Planning. Select alternate airports meeting the requirements of AFI 11-202V3. Choose alternates that best meet mission requirements and conserve fuel; they should not be within the same terminal area, if terminal forecasts are marginal. Select alternates that are not restricted by FLIP, FCG, or diplomatic clearances, and are compatible with the mission load and performance characteristics of the aircraft. The PIC 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.

6.19. 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 CAT II/III ILS minimums to determine if a departure alternate is required.

6.19.2. Suitability of Departure Alternates. When a departure alternate is required, the aircraft must be capable of maintaining the Minimum Enroute Altitude (MEA) or Minimum Obstruction Clearance Altitude (MOCA), whichever is higher, to the alternate using OEI 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 2400/730m), or;

6.19.2.2. The existing weather at an alternate within 1 hour flying (C-9, C-20, C-32, C-37 and C-40) or 2 hours flying time (VC-25) must be at least 500-1 above the lowest compatible published approach minimums, but not less 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 and the following:

6.20.1. File two alternates when:

6.20.1.1. The forecast visibility (intermittent or prevailing) is less than published for an available DoD or National Aeronautical Charting Office (NACO) precision approach; or

6.20.1.2. The forecast ceiling or visibility (intermittent or prevailing) is less than published for all other approaches. For approaches with no published ceiling requirement (for example Jeppesen approaches), the minimum required ceiling shall be computed by taking the published HAA or HAT and rounding it up to the nearest one hundred feet (or as determined by MAJCOM TERPs review). For example, a Jeppesen VOR approach with a published HAA of 642 feet would require a forecasted ceiling of 700 feet.

6.20.1.3. The forecast surface winds (intermittent or prevailing) exceed limits corrected for RCR.

6.20.2. File an alternate, regardless of forecast weather, when the destination aerodrome is outside the 48 conterminous states. ***EXCEPTION:*** OCONUS, intra-theater flights that do not exceed 3-hours, comply with basic AFI 11-202V3.

6.20.3. When filing to a remote or island destination, aircrews will use 1+15 holding fuel (in lieu of an alternate and 45 minutes holding fuel). A remote or island destination is defined as any aerodrome which, due to its unique geographic location, offers no suitable alternate (civil or military) within 2 hours flying time. 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 [excluding Approach Surveillance Radar (ASR)], for ETA plus 2 hours. However, if a precision approach is available, the ceiling or visibility may be intermittently below non-precision approach minimums (excluding ASR), but not below precision approach minimums (for ETA plus 2 hours). ***NOTE:*** See chapter 17 of this AFI for fuel planning considerations for destination requirements.

6.21. Adverse Weather.

6.21.1. Turbulence. Flight into areas of forecast or reported severe turbulence is prohibited.

6.21.1.1. Crews should confirm the type of aircraft the forecast turbulence applies to, or what type of aircraft reported the encounter, to gain a more accurate picture for their route of flight. Turbulence category charts are found in Air Force Weather Agency technical note AFWA/TN 98/002, *Meteorological Techniques.*

6.21.1.2. The PIC is responsible for ensuring all passengers are seated, with seat belts fastened, when areas of moderate or greater turbulence are encountered or anticipated. ***WARNING:*** Serious injury may occur if passengers do not have their seat belts fastened and the aircraft encounters moderate or severe turbulence.

6.21.1.3. Do not fly into an area of known or forecast moderate or greater mountain wave turbulence.

6.21.2. Icing. Flight into areas of forecast or reported severe icing is prohibited. Prolonged operation, such as cruise flight or holding, in areas of moderate icing should be avoided. ***NOTE:*** Air Force Weather Agency technical note AFWA/TN 98/002, *Meteorological Techniques*, states that freezing drizzle is equivalent to moderate icing and freezing rain is equivalent to severe icing.

6.21.2.1. Do not takeoff under conditions of freezing rain. Do not takeoff under conditions of freezing drizzle except when the aircraft has been properly de-iced/anti-iced with approved commercial Type II/IV de-icing fluids IAW applicable FCM procedures. For additional information regarding USAF de-ice/anti-ice requirements and procedures, consult TO 42C-1-2.

6.21.2.2. Freezing precipitation, snow, freezing fog, or temperatures near 0°C, may cause ice or frost to accumulate on aircraft surfaces. When an aircraft requires de-icing/anti-icing prior to takeoff, refer to the following:

6.21.2.2.1. Aircrews will only use de-ice and anti-ice fluids listed in the FCM or approved by the aircraft manufacturer. Aircrews will be familiar with, and follow all restrictions in the FCM with respect to anti-ice/de-ice procedures and holdover times.

6.21.2.2.2. MIL-A-8243 Type I and Type II de-icing fluids do not provide any anti-icing benefit, and therefore do not have holdover times. As a guide, for approved anti-icing fluids, crews may use published anti-icing holdover times IAW TO 42C-1-2, *Anti-Icing, Deicing and Defrosting of Parked Acft*, and AFFSA holdover tables located at the AFFSA website. The holdover time begins when anti-icing fluid is first applied and the PIC shall use time, temperature, and dilution of mixture to determine when times are exceeded and re-apply fluid if required.

6.21.2.2.3. In all cases, PICs will ensure a visual inspection of the aircraft is completed within 5 minutes of departure. In addition to a visual inspection, a tactile inspection may be required within 5 minutes of departure per the aircraft FCM. The PIC will conduct a tactile inspection as necessary IAW the FCM.

6.21.2.3. C-20/C-37: Based on actual testing and review of the runoff characteristics in the undiluted (neat) form, Gulfstream has determined that Type IV de-icing fluid is aerodynamically acceptable for the wing. Consult the Gulfstream AOM/AFM and/or Gulfstream FSR for the most current list of approved Type IV fluids.

6.21.3. Thunderstorms. Do not fly directly above (within 2,000 feet) thunderstorms or cumulonimbus clouds. If unable to vertically clear thunderstorms or cumulonimbus clouds by at least 2,000 feet, avoid them by at least:

6.21.3.1. 20NM at or above flight level FL230.

6.21.3.2. 10NM below FL230. ***CAUTION:*** Aircraft damage may occur 20NM or more from any thunderstorms. Aircrews must familiarize themselves with information on thunderstorm development and hazard.

6.21.4. The use of ground-based radar as a means of thunderstorm avoidance should only be used to assist in departing an inadvertently penetrated area of significant weather. It should never be considered a normal avoidance procedure. When relying exclusively on ground-based radar for weather avoidance, and the ground controller is unable to provide avoidance instructions, attempt to maintain VMC by:

6.21.4.1. Changing routing.

6.21.4.2. Diverting to alternate.

6.21.4.3. Declaring an emergency and requesting priority assistance.

6.21.5. Aircrews should avoid flying in areas of recently dissipated thunderstorms and advected clouds (horizontal movement of clouds caused by wind) downwind of thunderstorms.

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

6.21.6.1. Attempt to maintain VMC.

6.21.6.2. Maintain at least 5NM separation from heavy rain showers.

6.21.6.3. Avoid areas of high lightning potential, i.e., clouds within plus or minus 5,000 feet of the freezing level or plus or minus 8°C of the freezing level. ***NOTE:*** Approaches or departures may be accomplished when thunderstorms are within 10NMs. 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).

6.21.7. When performing approaches and landings at locations where temperatures are 0°C or below, refer to the FIH Section D, Temperature Correction Chart, to correct MDA, DH, and other altitudes inside the FAF.

6.21.8. In-flight Weather Advisories. Significant Meteorological Information (SIGMET) and other National Weather Service in-flight weather advisories are issued for large areas. Contact appropriate military weather facility or flight service station to determine mission applicability and impact.

6.21.9. Volcanic Dust Precautions. Aircraft flight operations in areas of forecast or known volcanic activity or dust is prohibited. Plan all missions to avoid volcanic activity by at least 20 NMs.

6.21.10. Lightning Avoidance. The following conditions are most favorable for lightning strikes and prolonged flight in them should be avoided:

6.21.10.1. Within 8□ C of freezing.

6.21.10.2. In clouds or in any intensity of precipitation or turbulence associated with thunderstorms.

6.21.11. **(Added-89AW)** Andrews AFB All-Weather Operations. The following information has been coordinated with 89 OG, 89 MXG, DynCorp and 89 OSS/Airfield Operations. The procedures below will be followed unless waived by 89 OG/OGO.

6.21.11.1. **(Added-89AW)** If a "Snow Event" has been forecasted by Andrews WX, 89 OG/CC (through 89 OG/OGO) will direct all aircraft to be hangared (and back-up aircraft when applicable) that will depart during the period where snow will affect the launch sequence. All agencies involved in the launch will be notified through 89 OG/OGO or command post.

6.21.11.2. **(Added-89AW)** Aircrews will be prepared to hangar launch during a “snow event.” Except during extremely poor weather conditions, the hangar launch will allow an expeditious departure without deicing. If deicing is still required, it will occur in the hammerheads of the west runway. These two spots have been coordinated in order to

isolate ramp areas and contain deicing fluid. PICs will ensure the ground crew is properly briefed on the aircrew's intentions. Comply with aircraft operations manuals and technical orders for deicing.

6.21.11.3. **(Added-89AW)** If a crew or the party has an exception to the hangar launch, the PIC must request relief from 89 OG/OGO at least 4 hours prior to departure. 89 OG/OGO is responsible for coordinating with 89 OG/CC to call off the hangar launch when it has been directed the day prior. The 4-hour time period will allow coordination with 89 OG/CC and the affected base agencies.

6.21.11.4. **(Added-89AW)** Safety is the number one concern and shall not be compromised. As always, the PIC is responsible for ensuring the aircraft is properly deiced. If delays are experienced in the hammerhead after deicing, do not hesitate to request a second deicing if it is required.

6.22. Standby/Alert Mission Pre-departure Procedures. Standby/Alert missions include any mission where the scheduled departure time is less than 12 hours after original notification. Procedures for standby/alert missions will vary depending on the type mission, type of aircraft and time available between notification and departure. Procedures also vary depending on time of day (i.e., duty hours or non-duty hours). The following general procedures apply in most cases:

6.22.1. Normally the standby/alert PIC is notified of an standby/alert mission by current operations, SOC, or aircrew scheduler (USAFE/PACAF: AMD notifies unit). When notified, the following will be covered:

6.22.1.1. The mission number, departure spot, expected departure time, DV name and position, and number of passengers. If the mission is supporting another VIP Aircraft, you may be instructed to log mission symbol S-7, and if you are not given a mission number, use the mission call sign plus the static two or three digit suffix number, i.e. SAM 70, in place of the mission call sign plus the four digit mission number suffix.

6.22.1.2. The itinerary details which are available. You may be asked to confirm times, airports, preferred FBOs, etc.

6.22.1.3. Fuel load requirements.

6.22.1.4. Threat assessment, tactics and airfield security information as applicable.

6.22.1.5. Items you want briefed to your crewmembers during notification. You should specify aircrew uniform or civilian clothes.

6.22.2. FAs normally require cash for purchases. Reference local supplement.

6.22.3. For immediate launches overseas during duty hours, the SOC or aircrew scheduler will arrange for passports, shot records and navigation kits (as applicable) to be delivered to the aircraft. In addition, the SOC or aircrew scheduler will arrange an intelligence briefing and/or intelligence package pick-up. After duty hours, the PIC will designate who will pick up passports, shot records, navigation kits, intelligence package (as applicable) and confirm who will handle pre-launch paperwork. Normally, the duty scheduler (during duty hours), SOC or the CP/AMD (after duty hours) will order a weather briefing, intelligence briefing, and computer flight plans, if required. Current North Atlantic Track (NAT) messages are always available at the CP. For missions departing immediately, the duty scheduler (during

duty hours) or the CP/AMD (after duty hours) will file a flight plan for the first mission leg. The crew must arrange desired dispatch/mission operations service for subsequent legs. The duty scheduler will assist in obtaining CFPs when requested. During duty hours, the SOC will coordinate with mission operations to prepare and dispatch diplomatic clearance and advance notice messages. After duty hours, the CP/AMD controller will arrange to handle messages. If you have adequate crew rest and notice prior to departure, you may accomplish pre-launch flight planning yourself.

6.22.4. The SOC and aircrew schedulers will notify the rest of the crewmembers. They will be briefed on the mission/aircraft numbers, departure time, where the aircraft is/will be spotted, required fuel load, general itinerary and number of days away, and any items the PIC has designated for briefing.

6.22.5. Reporting.

6.22.5.1. PICs normally report to base operations/squadron/CP to pick up the dispatch flight plan, weather briefing and intelligence package, file a flight plan (if required), and then report to the aircraft. For immediate launches, one of the other pilots will normally report directly to the aircraft. For all other launches, one of the other pilots will normally pick up passports/shot records, crew orders, navigation kits, and intelligence packages (as applicable), then report to the aircraft for pre-launch preparation.

6.22.5.2. FEs/FCCs report directly to the aircraft to monitor fueling and reconfiguration, and accomplish preflight inspections. Keep the CP advised of any aircraft problems.

6.22.5.3. CSOs pick up applicable crypto kits and report to the aircraft for preflight. They act as the crew monitor and notify the CP and PICs if crewmembers do not report within a reasonable time.

6.22.5.4. FAs report to their duty section to pick up supplies. During duty hours, the duty scheduler will arrange for another FA to assist with commissary goods and aircraft preparation. Do not delay reporting for shopping. Aircraft preparation is the most important priority. Obtain cash advances from unit resource advisor (duty hours) or from the CP (non-duty hours). Order fleet service and report to the aircraft.

6.22.6. Immediate Launch Clearances. Pilots should ask clearance delivery for a full route clearance if the CP, IFM/CDS, SOC or aircrew scheduler files the flight plan.

6.23. Crew Station Times. Crewmembers will normally be at their duty stations with all checklists accomplished up to the point of engine start not later than 30 minutes prior to departure. Crewmembers will be prepared to depart as expeditiously as is safely possible if the DV arrives early.

6.24. Operational Risk Management (ORM). ORM is a logic based, common sense approach to making calculated decisions on human, material, and environmental factors before, during, and after all operations. USAF policy on ORM is contained in AFPD 90-9, *Operational Risk Management*. PICs will accomplish ORM worksheets IAW MAJCOM and local guidance as part of predeparture/preflight activities.

6.24.1. **(Added-89AW)** See 89 OG Operating Instruction (OI) 90-1 for additional ORM guidance. Complete the 89 OG ORM worksheet for all off-station missions.

Section 6C—Preflight

6.25. AFTO 781, ARMS Aircrew/Mission Flight Data Document.

6.25.1. Review AFTO 781 series 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 PIC may sign the exceptional release. Ensure that the DD Form 1896, *DoD Fuel Identaplate*, and AIR card is aboard the aircraft.

6.25.2. One-Time Flights. An aircraft may be released for a one-time flight with a condition that might be hazardous for continued use, provided the aircraft is airworthy for one flight to another station. Refer to TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*, for downgrade authority and procedures. After the maintenance release is obtained, coordinate mission requirements with the controlling agency. The PIC's concurrence is required before the aircraft can be flown. Approval authority for one-time flights is contained in paragraph 4.6.

6.25.3. For Red X clearing procedures at stations without maintenance support, refer to paragraphs 12.3. and/or 16.4. of this AFI.

6.26. En Route Aircraft Preflights. FEs, FCCs and CSOs will accomplish aircraft preflights following crew rest. If the ground time will exceed 72 hours or if the aircraft has been left unattended, aircrews should accomplish an aircraft inspection/walk-around of the aircraft within 24 hours of scheduled departure, when practical. Anytime en route maintenance has been performed, the affected systems will be pre-flighted and should be operationally checked as soon as possible if practical. Thru-flight inspections will be completed anytime a preflight is not required. FAs only need to accomplish a thru-flight inspection at en route stops. Pilots will ensure flight controls are checked IAW the FCM.

6.27. Aircrew Life Sustaining Equipment Requirements. The minimum quantity of oxygen aboard an aircraft before takeoff must be sufficient to accomplish the planned flight from the ETP to recovery, should oxygen be required.

6.27.1. C-37 Oxygen Waiver Policy. A waiver to AFI 11-202, Volume 3, Table 6.1, permitting C-37A/B aircraft to operate above FL410 without one pilot donning an oxygen mask is granted, under the following provisions:

6.27.1.1. Operations up to FL450 will be treated the same as those currently allowed in AFI11-202 Volume 3, Table 6.1, up to FL410. Crews will limit exposure to higher altitudes by planning all missions at or below FL410. Any missions planned at altitudes above FL410 (requesting waiver) require MAJCOM A3 approval. Coordinate through unit OG/CC and OGV for processing the request.

6.27.1.2. Should fuel reserves, adverse weather or turbulence necessitate a climb above FL410, C-37A/B crews may operate up to FL450 with oxygen immediately available to both pilots under the following restrictions:

6.27.1.2.1. Both pilots will occupy their duty positions.

6.27.1.2.2. The Emergency Descent Mode (EDM) must be functional.

6.27.1.2.3. The autopilot must be engaged and functional in each axis.

6.27.1.2.4. The auto-throttles must be engaged and functional.

6.27.1.2.5. Internal baggage door must remain closed.

6.27.1.2.6. Flights over terrain greater than 13,000 feet MSL require one pilot to be continually on oxygen if the aircraft is above FL410.

6.27.1.3. If all the above criteria cannot be met, one pilot will don an oxygen mask IAW AFI 11-202 Vol 3, Table 6.1. Additionally, if the cabin pressure low warning message illuminates at or above FL400, activating the EDM, the crew will take the following actions:

6.27.1.3.1. Crew Oxygen Masks - Don (All)

6.27.1.3.2. Speed Brakes - Extend (P or FE)

6.27.1.3.3. Emergency Descent Procedures - Initiate (PF)

6.28. Fleet Service. Ensure required fleet service items are aboard the aircraft early enough to permit inventory prior to engine start.

6.29. Crash Position Indicator (CPI) and Emergency Locator Transmitter (ELT). CPIs and ELTs must be operative for all flights except those remaining in the local area. If a CPI or ELT deploys or activates inadvertently, notify ATC immediately. In the case of a deployed CPI, if the aircraft is scheduled to fly a local or is en route with no replacement airfoil available and the airplane is permitted to continue the mission, a locally manufactured airfoil should be installed over the missing CPI.

6.30. Handling of Classified Cargo, Registered Mail, High-Visibility Aircraft Parts Shipments, and Courier Material.

6.30.1. These shipments are normally not carried on VIP passenger aircraft. PICs may accept or decline shipments at their discretion based on mission requirements or crew or aircraft capabilities. Receipts will be obtained for classified cargo, high-visibility aircraft parts shipments, signature services, 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 PIC are authorized to designate officer or enlisted, (E-5 and above) crewmembers on military aircraft as couriers to escort and safeguard courier material when other qualified personnel are not available. Qualified passengers, if carried, are designated before designating crewmembers. The following restrictions apply:

6.30.1.1.1. Primary crewmembers will not be designated without the consent of the PIC.

6.30.1.1.2. Crewmembers 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 PIC 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.

6.30.2.1. During unscheduled stops, crewmembers may place courier material in temporary custody of the following agencies listed in descending order of priority:

6.30.2.1.1. DCS courier

6.30.2.1.2. TOP SECRET control officer of the US armed forces

6.30.2.1.3. US Department of State diplomatic courier

6.30.2.1.4. US Department of State activity

6.30.2.1.5. US military guards

6.30.2.1.6. 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 Defense Courier Station and notify the local US military commander or US government activity.

6.30.4. Life or death urgency shipments consist of biological or other medical supplies of such urgency that human life is dependent upon immediate receipt. Shipments will be manifested separately and the manifest annotated with the words LIFE OR DEATH URGENCY. All shipments will be handled on a hand-to-hand receipt basis, using either the air cargo manifest or the DD Form 1907, *Signature and Tally Record*, for unit moves. The PIC, or designated representative, will be briefed on the urgency of the shipment and be made the custodian during flight.

Section 6D—Departure

6.31. On Time Takeoffs. A delay is charged any time the DV and passengers are ready to move at the scheduled departure time and the aircraft is not ready for departure or cannot depart due to maintenance or operational reasons.

6.31.1. The simplest definition of a VIP delay is a failure to block out when the DV is ready at the scheduled time due to maintenance or operational reasons, thus delaying the DV. To promote the credibility of our reliability rate the following will be considered delays:

6.31.1.1. A delay is credited when the mission blocked out "on-time" but could not takeoff due to maintenance or operational reasons, thus delaying the DV.

6.31.1.2. A delay is credited when the mission blocked out "early" but could not takeoff due to maintenance or operational reasons, thus delaying the DV. The DV party should expect departure any time after stations time (30 minutes prior to scheduled takeoff time), or any time the crew has agreed (explicitly, or by loading the party, closing the door and implying readiness for departure) to depart early. If the party arrives prior to stations time and the crew is not ready a delay will not be charged. When the crew indicates they are ready (i.e. boarding party, closing door, removing stairs, starting engines, etc.), further delay would constitute a VIP delay.

6.31.1.3. A delay is credited when the mission blocked out and took off "on-time" but air aborted or diverted to an airport other than the next scheduled stop due to maintenance or operational reasons, thus delaying the DV.

6.31.2. Right side engine may be started prior to final on-load of all passengers, baggage, and gear in order to expedite overall engine start process. The PIC will ensure the right side

of the aircraft is safe, clear and all right side aircraft baggage doors are closed/secure. The left side engine will not be started until all passengers, baggage and gear are on board, left-side aircraft baggage doors are closed/secured and the area around the aircraft is safe and clear.

6.32. Cabin Security Procedures for Takeoff and Landing. The following procedures should be followed prior to all takeoffs and landings:

6.32.1. The FA should assure all carry-on luggage, equipment and supplies are secured as soon as possible after boarding passengers. Ensure all passenger carry-on baggage is stowed to prevent a hazard during unforeseen events on takeoff or landing (i.e. aborted takeoff, emergency landing, low-level wind shear, turbulence, etc.). ***EXCEPTION***: The primary DV may use a portable laptop computer on the fixed table (stowable table for C-20/C-37) during taxi, takeoff, and landing. No other use of carry-on equipment or raised tables is permissible during take-off and/or landing as they pose an unacceptably high risk of blocking emergency exit routes. After considering extenuating circumstances (i.e. potential wind shear/turbulence, combat departure/arrival, aircraft malfunctions, etc.), the PIC may direct that all carry-on baggage be stowed to include the DV compartment. Notify the PIC when excessive carry-on baggage (topside) precludes safe stowage.

6.32.2. The 1st FA will coordinate with the PIC the anticipated taxi time prior to commencing any cabin service prior to takeoff.

6.32.3. The 1st FA should notify the cockpit crew that the cabin is secure prior to being seated for takeoff or landing. The cockpit crew should confirm the cabin security report prior to takeoff and landing. At the PICs discretion, if conditions warrant (i.e., immediate takeoff clearance), the pilots may alert the passengers and crew using the PA system.

Section 6E—En route

6.33. Flight Progress.

6.33.1. Prior to coast out fix, plot the oceanic portion of the flight on an appropriate Oceanic Plotting Chart (OPC). Annotate the chart with the mission number, PIC's name, preparer's name, and date. If practical, chart may be reused.

6.33.2. Anytime waypoint data is inserted into the FMC/FMS, it will be verified by two primary crewmembers. Check both the coordinate information and the distances between waypoints against the flight plan.

6.33.3. In-flight, use all available navigational aids to monitor FMC/FMS performance. Immediately report malfunctions or any loss of navigation capability which degrades centerline accuracy to the controlling ARTCC. Use the following procedures for flight progress:

6.33.3.1. Obtain a coast out fix prior to, or immediately on entering the CAT I Route or overwater EROPS segment. Perform a gross navigation error check/altimetry check using available NAVAIDs and annotate the position, altitude and time on the chart.

6.33.3.2. When approaching each waypoint, recheck coordinates for the next waypoint. Approximately 10 minutes after passing each oceanic waypoint, record and plot the

aircraft position and time on the chart, and ensure compliance with courses and ETA tolerances.

6.33.3.3. If a revised clearance is received, record and plot the new route of flight on the chart. For CPDLC operations, maintain a log of ATC clearances and retain with the OPC.

6.33.3.4. Monitor FMC/FMS loaded EROPS ETP alternates for weather/NOTAMs. Contact dispatch or weather for updates if necessary.

6.33.4. Post Mission Papers. Upon return to home station, turn in the charts (copies if reused) and applicable computer flight plans to the squadron stan/eval function. Squadron stan/eval will retain the charts, CFPs, CPDLC clearance logs, and associated materials for a minimum of 3 months.

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

6.33.5.1. There are essentially two types of airspace: international airspace and national 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. National Territorial airspace, also referred to as territorial or sovereign 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. IAW international law, the US recognizes territorial sea claims and the corresponding airspace up to 12 nautical miles measured from baselines drawn consistent with international law (normally the low-water mark). 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, which differ from the standard.

6.33.5.3. Flight Information Region (FIR). An FIR is defined as an area of 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 controlling coastal state/country, provided the PIC avoids flight in sovereign airspace.

6.33.5.4. Aircrews on a flight plan route, which takes them from international airspace into national territorial airspace for which approved aircraft clearances were obtained, should not amend entry point(s).

6.33.5.5. Safe Passage violations of foreign sovereignty result from unauthorized or improper entry or departure of aircraft. Aircrews should not enter into territorial airspace (12 NM seaward from sovereign landmass) for which a clearance has not been duly requested and granted through diplomatic channels.

6.33.5.6. ATC 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 diplomatic clearances are obtained through diplomatic channels only.

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 the air traffic control agency 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. Under no circumstances should aircrews construe a clearance which routes their mission over sovereign airspace which was not approved through diplomatic channels prior to mission departure, as being valid authorization. If faced with this situation, aircrews must contact the appropriate MAJCOM C2, as soon as possible, to obtain the correct approvals.

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 prior to performing the critical portion of the mission.

6.33.5.9. Aircrews normally are not tasked to and should not fly "due regard" routings unless coordinated with the appropriate MAJCOM C2 with mission execution authority and specifically directed in the mission FRAG. The "due regard" or "operational" option obligates the military PIC to be their own ATC agency to separate their aircraft from all other air traffic. If operational requirements dictate, PICs may exercise the "due regard" option to protect their aircraft. Aircraft will return to normal air traffic services as soon as practical.

6.33.6. SPINS. Prior to transiting AOR airspace, review specific theater guidance, including SPINS. At a minimum, review the AOR communication plan, special airspace, and airfield ingress and egress procedures. Ensure FMC/FMS waypoints for tactical reporting points, approaches, and departures are loaded. If appropriate, review combat entry and exit checklists with crew members and designate a time/point to initiate or complete the checklists.

6.34. Navigational Aid Capability. Refer to chapter 11 of this AFI.

6.35. Communications Instructions for Reporting Vital Intelligence Sightings (CIRVIS) and Other Reports. Report all vital intelligence sightings from aircraft as indicated in FLIP planning or FLIP En route Supplement.

6.35.1. In-Flight harassment or hostile action against aircraft. Aircraft subjected to harassment or hostile action by foreign aircraft will immediately contact the nearest USAF 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 CP when in UHF and VHF range.

6.35.2. Other incidents will be reported as indicated in AFI 10-206, *Operational Reporting.*

6.36. Communications.

6.36.1. HF Communications. Confine message traffic to essential operational matters. Perform an HF radio ground check prior to 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. ALE equipped aircraft should preflight in the ALE mode.

6.36.2. General. Provide ARTCC position and weather observations when required. If unable to contact an ATC agency, attempt relay through the GLOBAL HF stations. Frequencies for GLOBAL HF stations are listed in the FIH.

6.36.3. AF Form 72, *Air Report (AIREP).* When directed by departing weather facility, take and record an AIREP at each position report over a CAT 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.

6.36.4. SELCAL code assignments: Reference local supplement for unit tail numbers.

6.36.5. ATO and SPINS. Prior to transiting an AOR with SPINS and ATO requirements, load assigned IFF modes/codes. Additionally, contact and monitor appropriate C2 agencies at designated times and points along route of flight.

6.37. In-Flight Emergency Procedures. The PIC shall report deviations from directives that may occur as a result of an emergency according to AFI 11-202V3. Time and conditions permitting, inform passengers of the situation and intentions.

6.37.1. Notification of Controlling Agencies. When practical after completing the aircraft emergency action checklists and associated actions, crews should furnish the controlling agency and appropriate C2 center a description of the difficulty, assistance required, intentions, and any other pertinent information.

6.37.2. The PIC may initiate a CONFERENCE HOTEL/SKYHOOK when additional expertise is necessary. Communications procedures are as follow:

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

6.37.2.2. En route. Attempt to establish a phone patch with the nearest or controlling C2 center using GLOBAL HF network, UHF/VHF stations, SATCOM, etc. If unable, aircrews are permitted to use ARINC radio service as an additional avenue for phone patch connectivity (ref paragraph 6.37.2.4. of this AFI).

6.37.2.3. Provide the following information when time permits.

6.37.2.3.1. Narrative description of the situation to include actions taken by the crew and the intentions of the PIC.

6.37.2.3.2. Fuel on board and hours of endurance.

6.37.2.3.3. Position.

6.37.2.3.4. Altitude and flight conditions.

6.37.2.3.5. Number of personnel and DVs on board.

6.37.2.3.6. Qualification of PIC.

6.37.2.3.7. Planned landing base.

6.37.2.3.8. ETA at landing base.

6.37.2.4. ARINC phone patch. If unable to contact a station with phone patch capability, the USAF has a contract with ARINC to provide this capability. ARINC has VHF coverage over the CONUS and Caribbean regions and HF coverage over most of the Atlantic and Pacific regions. Contact procedures can be found in the IFM Aircrew Flimsy available on the TACC web site. It is recommended that this flimsy be placed in each mission kit. Additionally, ARINC is the oceanic position reporting service provider, and the position reporting frequencies found on enroute charts can be used to obtain phone patch frequencies from the radio operator.

6.38. Need for Medical Assistance. When a person aboard the aircraft requires medical care, the PIC will notify the station of intended landing in sufficient time so the aircraft may be met by medical personnel. Notification will include the patient's sex, approximate age, and major complaint.

6.39. Weather Forecasts.

6.39.1. PIC is responsible for obtaining destination weather prior to descent. The primary sources are TACC Global Mobility Weather Operations, Operational Weather Squadrons (OWS), USAF weather flights via pilot-to-meteorologist service (PMSV), MAJCOM approved CDS or FAA Flight Service Stations (FSS). Refer to the FIH for an OWS listing and their applicable AORs. The ATC system can provide weather information to en route aircraft.

6.40. Not Used.

Section 6F—Arrival

6.41. Descent. Prior to descent into unfamiliar areas, appropriate terrain charts [Operational Navigation Chart (ONC), Sectional Aeronautical Chart, Tactical Pilotage Chart (TPC), or Joint Operations Graphic (JOG)] 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.

6.41.1. 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.

6.41.1.1. During night VMC conditions, if an approved instrument approach is not available, a visual approach may be flown as long as crews review appropriate VFR terrain charts and the intended runway has outlined runway lighting and is clearly discernible IAW AFI 11-202V3 paragraph 5.9.5. However, VIP crews should back up the visual approach with visual glide slope indicator (VASI, PAPI etc.). Use of

FMC/FMS solution [Lateral Navigation (LNAV)/VNAV] and/or Enhanced Vision System (EVS) is authorized in lieu of visual glide slope lighting.

6.41.1.2. On training and evaluation flights at familiar fields, pilots may perform VFR traffic patterns without (VASI, PAPI etc.). See local supplement for listing of familiar fields and local restrictions.

6.41.1.3. For recovery at home station, pilots may elect to fly a visual or non-precision approach, if weather minimums permit.

6.41.2. Tactical Considerations. Prior to descending through a known or suspected WEZ, the PIC should review applicable AFTTP options with the crew. In addition, the PIC must comply with published AOR SPINS and airfield tactical arrival procedures.

6.42. Instrument Approach Procedures. DoD/National Geospatial-Intelligence Agency (NGA), NACO or MAJCOM approved FLIP procedure can be flown by USAF aircrews without requiring a TERPS review. Any non-DoD (Jeppesen, Host Nation) approach requires a TERPS review that can be requested through the appropriate MAJCOM TERPS office. ***EXCEPTION:*** Aircrew using the host government-sanctioned FLIP product for airfields located in a Special Accredited Host Nation do not require TERPS reviews.

6.42.1. Weather. Prior to starting an instrument approach or beginning an en route descent, 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 ½ 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.

6.42.2. Precision Approach Minima. The ILS or Precision Approach Radar (PAR) decision height will provide a height above touchdown of 200 ft or higher. For CAT II ILS approaches, use the lowest published radar altitude. For PAR approaches, visibility will be no lower than RVR 2400 (730 meters) or 1/2 mile visibility (800 meters) with no RVR readout available.

6.42.3. Circling approach minimums will be as published for the applicable aircraft category. If not published by category, limit circling minimums to an MDA based on a HAA and visibility as indicated below or as published, whichever is higher.

6.42.3.1. Category C: 500 feet HAA, 1 1/2-half mile visibility.

6.42.3.2. Categories D and E: 600 feet HAA and 2-mile visibility.

6.42.4. NDB approaches. NDB approaches may be flown during day, night, or IMC after compliance with any airfield restrictions in GDSS and the ASRR (note: some airfields will continue to be restricted IAW ASRR criteria for mountainous terrain, landing illusions, etc.). Back up each approach with available NAVAIDs/area navigation (RNAV)/GPS to include loading the NDB coordinates in the FMC/FMS (if equipped).

6.42.5. RNAV, GPS and RNAV(GPS) Instrument Departures, Arrival and Approaches. All VIP C-9, C-20, C-32, C-37, C-40 and VC-25 aircrews are authorized to fly pure GPS, RNAV, and RNAV(GPS) instrument departures, arrivals, day or night, IMC or VMC. Comply with procedures and temperature corrections IAW AFI 11-202V3 and FIH. Aircraft

must have RNP as published on the IAP. The PM shall monitor lateral cross track, vertical velocity trends, IAW FCM guidance and report alerts [required navigation performance (RNP), RAIM or loss of GPS signal] to the PF. PF shall execute missed approach if excessive deviations occur.

6.42.5.1. Equipment. Aircraft must have operable RNAV (INS/IRS) and/or GPS-updated FMC/FMS equipment to ensure sufficient RAIM, or appropriate level of actual navigation performance (ANP) is available IAW FCM procedures prior to initiating the approach. IAP notes such as "DME/DME RNP 0.3 N/A" or "GPS Required" state that GPS signal and aircraft equipment must be operational to start the approach. For aircraft where the MEL/MMEL does not allow the approach, or if the required approach RAIM/ANP is not available, the approach shall not be flown.

6.42.5.2. RNAV Instrument Approaches. All VIP Aircraft and certified aircrews are approved to perform RNAV approaches IAW AFI 11-202V3 and FCM guidance.

6.42.5.2.1. LNAV approaches. LNAV approaches are non-precision approaches and may be flown IMC to a barometric LNAV MDA(H). They may be also be flown using VNAV procedures to a derived decision altitude (DDA) = LNAV MDA(H) +50ft. The PM shall monitor lateral track error IAW FCM guidance and provide trends to the PF.

6.42.5.2.2. VNAV approaches. VNAV procedures differ from LNAV procedures as they are similar to ILS procedures following vertical path guidance. VNAV approaches may be flown IMC to a VNAV DA(H). IAW FCM guidance, C-20H, C-32, C-37, and C-40 aircraft are authorized descent to published barometric VNAV DA (corrected for temp) in World Geodetic System 1984 (WGS-84) compliant airspace only. Use of remote altimeter settings to VNAV DA(H) minimums is prohibited. The PM shall monitor lateral/vertical track error IAW FCM guidance and provide trends for PF.

6.42.5.2.3. RNAV (RNP) approaches. Aircrews are not authorized to fly RNAV (RNP) approaches until aircraft equipment is certified, aircrews are trained, and AMC/A3 has issued operational approval. This does not affect the capability to fly RNAV, RNAV (GPS), GPS, or "OR GPS" approaches.

6.42.5.3. Overlay approaches. The GPS Approach Overlay Program is an authorization for pilots to use GPS avionics under IFR for flying designated nonprecision instrument approach procedures, except LOC, LDA, and simplified directional facility (SDF) procedures. These procedures are now identified by the name of the procedure and "or GPS" (e.g., VOR/DME or GPS RWY 15). Other previous types of overlays have either been converted to this format or replaced with stand-alone procedures. Only approaches contained in the current onboard navigation database are authorized.

6.42.5.4. WGS-84 compliance. Individual country compliance with the WGS-84 means that the country's NAVAID and obstacle database conforms to the same US grid standard that today's updated avionics use to determine position. US NAS/Canadian Domestic Airspace is WGS-84 compliant. WGS-84 compliance is one of several items which are monitored to determine if a country's published RNAV(GPS) and overlay terminal procedures are authorized for use by USAF aircrews. PICs shall check

www.jeppesen.com to determine compliance if a country's WGS-84 status is in doubt. On the Jeppesen home page, type "WGS-84 Status Report" in the search field to access the compliance list. Except as noted below, only those procedures that are WGS-84 compliant may be flown using FMC/FMS guidance.

6.42.6. Not Used.

6.42.7. C-37 A/B Approach to straight-in landing operations below DA, DH, or MDA using enhanced vision system (EVS). C-37A/B EVS is approved for use in day, night, or IMC IAW the applicable FAA-approved Gulfstream Airplane Flight Manual (AFM), Aircraft Operating Manual (AOM), and Quick Reference Handbook (QRH). Refer to the AFM, AOM, and QRH for operational procedures and limitations. For straight-in instrument approach procedures other than Category II or Category III, operating below the authorized MDA or continuing an approach below the authorized DH is not authorized unless:

6.42.7.1. A current and qualified EVS pilot, IAW AFI 11-2SAM-CSM-DVGV1, occupies the left seat;

6.42.7.2. The aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers, and the descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;

6.42.7.3. The pilot determines that the enhanced flight visibility observed by use of a certified enhanced flight vision system is not less than the visibility prescribed in the standard instrument approach procedure being used;

6.42.7.4. The following visual references for the intended runway are distinctly visible and identifiable to the pilot using the enhanced flight vision system:

6.42.7.4.1. The approach light system (if installed); or

6.42.7.4.2. The following visual references in both paragraphs 6.42.7.4.2.1 and 6.42.7.4.2.2 of this section:

6.42.7.4.2.1. The runway threshold, identified by at least one of the following:

6.42.7.4.2.1.1. The beginning of the runway landing surface;

6.42.7.4.2.1.2. The threshold lights; or

6.42.7.4.2.1.3. The runway end identifier lights.

6.42.7.4.2.2. The touchdown zone, identified by at least one of the following:

6.42.7.4.2.2.1. The runway touchdown zone landing surface;

6.42.7.4.2.2.2. The touchdown zone lights;

6.42.7.4.2.2.3. The touchdown zone markings; or

6.42.7.4.2.2.4. The runway lights.

6.42.7.5. At 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the flight visibility must be sufficient for the following to be distinctly visible and identifiable to the pilot without reliance on the enhanced flight vision system to continue to a landing:

6.42.7.5.1. The lights or markings of the threshold; or

6.42.7.5.2. The lights or markings of the touchdown zone.

6.42.8. Missed Approach. Prior to starting any instrument approach, ensure proper sequencing of waypoints to the missed approach waypoint if lateral path is followed. Additionally, pilots will confirm their aircraft can accomplish the missed approach (to include holding) and meet or exceed all climb gradients specified in the missed approach procedure. If unable to meet required climb gradients, pilots must coordinate alternate missed approach procedures with ATC that will ensure terrain clearance, prior to commencing the approach. Do not initiate the approach if OEI performance will not permit safe obstacle clearance on the missed approach.

6.42.8.1. Not used.

6.42.8.2. Not used.

6.42.8.3. Weather below minimums: Pilots will not execute an approach if advised prior to starting the en route descent or penetration that the airfield is below landing minimums.

6.42.8.3.1. If a pilot starts the published approach, (an en route descent to an approach may be considered a published approach), and subsequently determines the weather is below minimums, the pilot must not deviate from the last ATC clearance until obtaining a new or amended clearance. The pilot may elect to:

6.42.8.3.2. Request clearance to a holding fix or alternate, as applicable.

6.42.8.3.3. Continue the approach as published to the missed approach point and land, if the aircraft is in a position to make a safe landing and the runway environment is in sight.

6.42.8.3.4. Established on a Segment of the Approach. 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 PIC has the option of continuing the approach to the MAP/DA/DH. 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.

6.42.8.3.5. Do not continue the approach below minimums unless the aircraft is in a position to make a safe landing and the runway environment is in sight.

6.42.8.3.6. If the approach is continued, PICs will ensure sufficient fuel is available to complete the approach and missed approach and proceed to a suitable alternate with normal fuel reserves.

6.42.8.3.7. CAT II/III approaches will not be continued if weather is reported below CAT II/III minimums.

6.42.8.3.8. The PIC has final responsibility for determining when the destination is below designated minimums and for initiating proper clearance requests.

6.42.9. CAT II/III Procedures. Special aircraft and aircrew training required. Refer to AFI 11-217V1, Chapter 19 and appropriate FCM for CAT II/III ILS information.

6.42.9.1. CAT II minimum RVR of 1200 ft (350 meters).

6.42.9.2. CAT II minimums based on a HAT no lower than 100 ft.

6.42.9.3. CAT II approaches without radio altimeter (RA) setting for DH are authorized. In this case IAP statement "RA NA" denotes irregular terrain changes that affect RA. Utilize barometric DH and inner marker if approved on the IAP. If inner marker is inoperative, CAT II approaches are not authorized.

6.42.9.4. CAT I ILS procedures will be used when unable to use alternate FCM guidance for local barometric DA(H) procedures.

6.42.9.5. CAT IIIA minimum RVR of 700 ft (200 meters).

6.42.9.6. CAT IIIB minimum RVR of 150 ft (50 meters).

6.42.9.7. Use Surface Movement Guidance and Control System (SMGCS) lighting (if available) at destination and taxi route.

6.42.10. Computed Microwave Landing System (MLS) Approaches. Aircrews will not fly computed MLS approaches unless authorized by the FCM.

6.43. Tactical Arrivals. If ingressing a WEZ and/or an airfield with known or suspected threats, review applicable AFTTPs and published airfield tactical arrival procedures with the crew.

6.44. Unscheduled Landings. Notify the airfield selected for an emergency diversion as soon as possible to allow maximum time to prepare the required assistance or services. ARTCC and C2 centers will assist the PIC as necessary in notifying the appropriate agencies.

6.44.1. Over-Flying Scheduled Refueling Stops. Before offering to over fly scheduled refueling stops, the PIC must consider all consequences that may arise. As a minimum, coordination with the contact, final arrival airport, over flight windows and greeting parties must be considered. Optimally the option of over-flying refueling stops should be coordinated with the contact and C2 through appropriate channels prior to departing home station.

6.45. Maintenance Debrief. Complete the AFTO 781, *ARMS Flight and Mission Data Report*, 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. Crewmembers are also responsible for documenting cosmetic faults on the aircraft to ensure maintenance is aware of the flaw. See local maintenance debrief policies in local supplement of this AFI.

6.45.1. **(Added-89AW)** 89 AW Maintenance Debrief Policy. 89 AW policy requires a maintenance debrief after all flights. ***EXCEPTION:*** aircraft scheduled for back-to-back local training flights or aircraft continuing on the same mission do not require maintenance debrief if the landing maintenance status is Code 1 or 2. Maintenance debrief is conducted at the termination of each sortie/mission, or when a sortie/mission is aborted. However, debriefing is required, regardless of landing status, after the last flight of the day. As a minimum, the PIC and FE (C-20/C-37) will attend the maintenance debrief. The CSO is required to attend debriefing if there are any aircraft communication system discrepancies or malfunctions**.**

6.46. Customs and Border Clearance.

6.46.1. Normal Operations:

6.46.1.1. The unit dispatching the mission is normally responsible for the border clearance of all aircraft.

6.46.1.2. When staff support is not available, border clearance is the responsibility of the PIC. Duties may be assigned to ground personnel or to other designated crewmembers, but the PIC retains ultimate responsibility. The PIC is responsible for ensuring the following:

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

6.46.1.2.2. Crew members and passengers have current record of immunization.

6.46.1.2.3. Cargo entry documents are in proper order.

6.46.1.2.4. Departing or entering the US through an airport where border clearance can be obtained.

6.46.1.2.5. Obtaining border clearance for aircraft 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 (FCG and paragraph 6.47. of this AFI).

6.46.2. Procedures for US Entry:

6.46.2.1. En route, the FA or designated crewmember will distribute personal customs declarations to all passengers and crew members. The FA or designated crewmember will also brief passengers and crew members on customs regulations, and prepare and compile necessary border clearance forms for the FA's signature.

6.46.2.2. En route, notify the C2 agency or airfield contact 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 location 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 unless required by an emergency situation or directed by the controlling C2 center.

6.46.2.4. When an aircraft lands for a US border clearance, a US Customs representative normally will meet the aircraft to obtain the required documents. Do not deplane passengers or crew members 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.

6.46.3. Inspections of US aircraft by foreign officials:

6.46.3.1. Follow USAF policy on status of military aircraft as stated in the FCG, chapter 6, section G. 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, PICs 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 PIC 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 USAF aircraft.

6.46.3.2.2. If foreign authorities insist on conducting a search, the PIC should make every effort to delay the search until he or she can contact USAF headquarters or the appropriate embassy officials. The PIC should then notify these agencies of the 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 PIC 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 PIC 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 PIC should not attempt physical resistance, and should thereafter report the incident to USAF headquarters and appropriate embassy as soon as possible. The PIC 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.

6.47. Insect and Pest Control.

6.47.1. Responsibility. PIC will ensure required spraying is accomplished according to AFJI 48-104, *Quarantine Regulations of the Armed Forces*, FCG, or as directed by higher headquarters. Certify the spraying on Customs Form (CF) 7507, or on forms provided by the country transited. Aircraft should never be sprayed with passengers on-board. The only exception is when the FCG mandates it.

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. Use the following guidelines:

6.47.1.1.1. Direct the nozzle toward the ceiling of the compartment or space being sprayed.

6.47.1.1.2. Spray spaces inaccessible from within the aircraft after completely loading fuel, baggage, cargo, and passengers, including baggage compartments, wheel wells, and other similar spaces.

6.47.1.1.3. Spray the cabin, cockpit, and other spaces accessible from within the aircraft after the crew is aboard and after closing all doors, windows, hatches, and ventilation openings. ***CAUTION:*** If the insecticide label directs disembarkation after use, spray prior to boarding crew or passengers. Close all doors and hatches for 10 minutes after dispensing and ventilate for 15 minutes before allowing anyone on board.

6.47.1.2. Spraying Times. Spray the aircraft for the following times unless longer periods are specified for the country being transited:

Table 6.2. Spray Times.

MDS Aircraft	C-20/C-37	C-9	C-32	C-40	VC-25
Spraying Time	15 Sec	37 Sec	65 Sec	45 Sec	118 Sec

6.47.2. Responsibility of PIC 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, do not open cargo doors or hatches except 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 Response. If a dropped object is discovered, the flight crew will:

6.48.1. Notify the Current Operations or SOC and the controlling agency as soon as practical; includes routing, altitude, weather, etc.

6.48.2. Notify unit safety and maintenance at the next station transited.

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

6.49.1. FDR and CVR systems, if installed, should be operative prior to departure and operated continuously from the start of the takeoff roll until the aircraft has completed

landing roll at destination. If en route failure occurs, continue the mission to a station where adequate repairs can be made. If involved in a mishap or incident, open the CVR and FDR power circuit breaker after landing and after terminating the emergency. CVR recordings are considered factual and the transcript is not a privileged document. The actual aircrew voices on the tape should be considered protected under the Privacy Act. See AFI 91-204, *Safety Investigations and Reports*.

6.50. Life Support and Dash 21 Equipment Documentation. The PIC or designated representative will:

6.50.1. Prior to departing home station or en route stations, ensure appropriate serviceable protective clothing, life support, survival, and dash 21 equipment for the entire or remainder of the mission are aboard the aircraft. Review applicable leased aircraft procedures.

6.50.2. Prior to departing home station and following en route crew changes, review AF Form 4076**,** *Aircraft Dash 21 Equipment Inventory*, to ensure all required dash 21 equipment has been certified as installed by maintenance, the initial check has been signed by maintenance, and configuration documents match mission requirements.

6.50.3. Prior to departing home station and following en route crew changes, review, sign, and date the AFTO 46, *Pre-positioned Life Support Equipment*, to ensure all required protective clothing and life support and survival equipment have been certified as installed by aircrew life support and that configuration documents match mission requirements. Ensure appropriate number and type of life preservers are aboard for over-water missions carrying children and infants.

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

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

6.50.4.2. Annotate AF 4076 and AFTO 46 in the next vacant column, by indicating the quantity remaining for the item. Ensure the ICAO location designator is entered above the check number of that column.

6.50.4.3. Leave AF 4076 and AFTO 46 on board the aircraft in the event of an en route crew change.

6.50.4.4. Advise the PIC and determine whether the missing equipment should be recovered or replaced before mission continuation.

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

6.50.4.6. When possible, advise MAJCOM Stan/Eval (or airport management) before mission continuation.

6.50.5. Additional Equipment. If more equipment is discovered during the preflight than is annotated on the AF 4076 and AFTO 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. Passenger Restrictions. The only passengers on missions transporting DVs will be those of the official party and those space available passengers authorized by the on-board contact officer.

6.51.1. Space Available Passengers. For other than revenue and White House missions, PICs are authorized to release space available seats on mission legs when no official passengers are aboard (positioning and de-positioning legs). PICs are encouraged to release maximum space available seats subject to the following restrictions:

6.51.1.1. Revenue Missions. These are missions for which the using agency (typically a government agency other than DoD) is reimbursing DoD for use of the aircraft. Space available passengers on revenue missions must be approved in advance by USAF/CVAM/AMD/JOSAC (as appropriate) and the using agency contact officer through unit C2 agencies. This is essential to ensure proper funding and reimbursement. Consult CVAM/AMD/JOSAC to determine mission revenue status if in doubt. Congressional Delegations (CODEL) are not revenue missions.

6.51.1.2. White House Support Missions. Space available passengers will generally not be permitted aboard White House support mission aircraft without express permission of HQ USAF/CVAM. This is normally due to the security status of the aircraft, which may include positioning and de-positioning legs. When it is necessary to move aircrew members or support personnel on White House support mission aircraft, the WHMO will be advised and permission obtained through the unit C2 and CVAM. On de-positioning legs space available passengers will usually be permitted if the aircraft is no longer required to maintain an upgraded security status.

6.51.1.3. Billing. Space available passengers on revenue missions may be subject to being billed commercial first-class airfare by the using agency for the applicable route, depending on that agency's policy. If the DV or on-board contact officer releases seats, aircraft commander must ensure that any additional financial liability for the passengers is specified by the using agency on-board contact officer. PIC will ensure passengers understand and agree to any reimbursement conditions prior to boarding.

6.51.1.4. Anti-hijacking Inspections. Board space available passengers only after anti-hijacking inspections are completed. If a space available seat release is anticipated at an en route station, the local passenger service facility will be advised of the inspection requirement. Procedures for anti-hijacking inspections by the aircrew at stations without a military passenger service facility are specified in chapter 13. The PIC has final authority for accepting space available passengers.

6.51.2. Passenger Boarding. On all missions operating without security guards, the first FA will ensure that all passengers are listed on the passenger manifest prior to boarding the aircraft. ***EXCEPTION:*** The flight engineer will be responsible for greeting and checking passengers on the C-20/C-37. Passengers will be greeted and checked at the bottom of the steps. The PIC or the mission escort officer must clear any passengers not listed on the manifest prior to entering the aircraft. This task will be completed at the beginning of each mission and any time passengers have to re-board the aircraft.

6.52. Airfield Data Reports. Aircrews transiting strange airfields or airfields where conditions may adversely affect subsequent flight will:

6.52.1. 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.

6.52.2. Debrief the next C2 center transited.

6.53. Impoundment of Aircraft. If an aircraft is involved in a serious in-flight or ground incident, the PIC should impound the aircraft immediately after landing and contact the controlling C2 center and parent MAJCOM safety office for further instructions.

6.54. No Show Passenger Baggage. Unclaimed passenger baggage and untagged baggage will be subject to search and seizure. Under no circumstances will it be allowed on the aircraft. Tagged but no-show passenger baggage or baggage of passengers removed from flight will be downloaded prior to departure. Aircrew will not accept unaccompanied baggage except IAW AMCI 24-101.

6.55. Wake Turbulence Avoidance. Comply with wake turbulence avoidance criteria. Acceptance of traffic information, instructions to follow an aircraft, or a visual approach clearance is acknowledgment that the PIC will ensure takeoff and landing intervals and accepts responsibility of providing wake turbulence separation. Refer to FLIP GP section 6 for more information concerning wake turbulence separation.

6.56. Operations at Airports Above 10,000' MSL. Use approved FCM procedures and the following aircrew procedures for operations at airports above 10,000' MSL:

6.56.1. Raise cabin altitude to 10,000 feet during the descent. Configure aircraft pressurization, air conditioning, and oxygen/warning systems as required and complete the remaining depressurization on final approach.

6.56.2. A specific timed period of oxygen use prior to landing is not required. Aircrew members use oxygen during descent, approach, landing, takeoff, and ground operations when engines are running/checklist operations in progress.

6.56.3. PIC briefing and passenger briefings must include cautions on high altitude operations and hypoxia. All passengers are susceptible to hypoxia during depressurized flight above 10,000 feet cabin altitude. Take your time during ground operations at high altitude. Monitor and back up other crewmembers servicing or loading the aircraft. Keep portable oxygen bottles readily available in the event of over-exertion or hypoxia. Administer oxygen to any passenger displaying hypoxia symptoms.

6.56.4. Emergency Egress Restrictions. ***CAUTION:*** Do not, repeat, do not land pressurized.

6.57. Classified Equipment and Material.

6.57.1. Equipment. When classified equipment is onboard, ensure aircraft security requirements are met according to chapter 7 of this AFI. At bases not under jurisdiction of the USAF, ensure the aircraft and equipment are protected. AFI 31-401, *Information Security Program Management*, provides specific guidance concerning the security of various levels of classified equipment aboard aircraft.

6.57.2. Material. Ensure COMSEC and other classified materials are turned in at destination and receipts are obtained for COMSEC and classified material. 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 gun storage box or classified safe may be used for material classified up to and including SECRET. Encrypted COMSEC will only be transferred to authorized DoD personnel.

6.57.3. IFF/Selective Identification Feature (SIF). Ground check IFF/SIF prior to takeoff (ground test assets permitting). IFF self-test or radar interrogation will satisfy this requirement. This check is not required on stopover flights if the IFF is operational upon landing unless required by theater directives.

6.57.4. Mode 4. 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) prior to deployment overseas, or as specified in the OPORD or contingency/exercise tasking.

6.57.4.1. Attempt to fix an inoperable Mode 4 prior to takeoff. Do not delay takeoff or cancel a mission for an inoperable Mode 4, except when the aircraft will transit an area where safe passage procedures are implemented.

6.57.4.2. Conduct an inflight check of the Mode 4 on all missions departing the CONUS for overseas locations. Aircrews can request the Mode 4 interrogation check through NORAD on UHF frequency 364.2.

6.57.4.3. Aircraft with inoperable Mode 4 will continue to their intended destinations. Repairs will be accomplished at the first destination where equipment, parts, and maintenance technicians are available. In theaters where safe passage is implemented, aircraft will follow procedures for inoperable Mode 4 as directed in the applicable airspace control order or ATO.

6.57.4.4. Ground and inflight checks of the Mode 4, when conducted, are a mandatory maintenance debrief items. Crews will annotate successful and unsuccessful interrogation of the Mode 4 on all aircraft forms (AFTO 781A).

6.57.4.5. Aircrews will carry COMSEC equipment and documents required 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.

6.57.4.5. **(89AW)** Obtain authentication and classified code documents through 89 OG/OGKC (Bldg 1658 COMSEC Vault). CSOs will coordinate mission COMSEC requirements as early as possible to provide sufficient lead time to construct a crypto kit. CSOs will pick up a COMSEC alert kit for alert launches requiring a crypto kit.

Chapter 7

AIRCRAFT SECURITY

7.1. General. Your mission places you and your aircraft in an environment highly vulnerable to security threats. The importance of the DVs transported and the high frequency of missions into civil airports throughout the world magnify this vulnerability. Positive security measures are required at all times. This chapter provides guidance on aircraft security and preventing and resisting aircraft piracy (hijacking) of VIP Aircraft. AFI 13-207, AFI 31-101, *The Air Force Installation Security Program (FOUO)*, and specific MAJCOM security publications contain additional guidance. Aircrews will not release information concerning hijacking attempts or identify armed aircrew members or missions to the public.

7.2. Security. The OG/CC or above may direct the use of security personnel above and beyond the requirements of AFI 31-101. The waiver approval authority for VIP RAVEN team composition, security and RAVEN team support requirements is the WG/CC exercising authority over VIP Aircraft.

7.2. (89AW)Security. The 89 AW/CC is the waiver authority to operate with less than the standard RAVEN team composition specified in AFI 31-101. If the mission transits or on/offloads at an airfield designated as a high risk security threat, or if 89 OG/CC determines that airfield security protection is inadequate, additional RAVENs will accompany the aircraft (or preposition, if passenger load requires) regardless of the scheduled ground time. RAVEN requirements are normally coordinated at the Mission Assessment Group (MAG).

7.2.1. Protection Level (PL)-1. Presidential WHMO, Office of the Secretary of Defense (OSD) designated aircraft are required continuous security protection at home station, en route operating locations and contract maintenance facilities. Units will define RAVEN requirements for PL-1 missions in local supp to this AFI.

7.2.1.1. **(Added-89AW)** Protection Level 1 (PL-1) Aircraft . All PL-1 resources will be accompanied by RAVENs. When an aircraft is upgraded to PL-1 status, the RAVENs and flight engineer, or crew chief, will conduct a security sweep during aircraft preflight and secure the aircraft at least 2 hours prior to mission departure. The appropriate number of RAVENs will be posted to control aircraft access until its departure. At least one RAVEN is required to accompany the aircraft and control access at all times. The appropriate number of RAVENs will either accompany the aircraft or preposition as required to all en route stations.

7.2.2. PL-2/PL-3. When not designated as PL-1 aircraft, C-32 aircraft will be designated PL-2 resources. All other VIP Aircraft will be designated PL-3 resources. See AFI 31-104 for PL-2/PL-3 security requirements. Units will define RAVEN requirements for PL-2/PL-3 missions in local supp to this AFI.

7.2.2.1. **(Added-89AW)** Protection Level 2 (PL-2) Aircraft. All PL-2 resources will be accompanied by RAVENs. When en route/destination stations must provide security support for any aircraft, the applicable security statement will be included in the pre-mission clearance request. If deviation from the prescribed format is required, coordinate with 89 OG/OGO. If security support is required at a CONUS station where a message is not required, or at a foreign station without any US support personnel

(embassy/attach/MAAG/MILGP or military personnel), the PIC is responsible for arranging for the required support.

7.2.2.2. **(Added-89AW)** Protection Level 3 (PL-3) Aircraft. At RAVEN-required airfields, RAVENs will maintain a presence and control entry to the aircraft at all times. At non-RAVEN airfields, the 89 OG/CC or PIC may request a RAVEN accompany the aircraft. When operating without RAVEN security outside the 50 states and Canada, the 89 OG/CC or PIC may elect to use a full-time security guard during extended RONs when the aircraft would otherwise be left unattended, except when at US or allied military airfields. Use a security guard at all airfields designated "high risk," including those in the and . Unlike a RAVEN, this security guard does not control access to the aircraft. The aircrew controls access and seals the aircraft (see paragraph 7.5.2.). The security guard provides protection for the sealed aircraft. PICs will brief the security guard on duties and responsibilities. Brief the guard that an aircrew member must be present whenever the aircraft is opened. Any of the following personnel may be used as security guards: US military (any locally assigned or TDY personnel); foreign military (allied forces or those approved by the local defense/air attaché); civilian police (local civilian police, airport security police, DoD security police); or other security personnel approved by the local defense/air attaché or by the 89 OG/CC. Use an AF Form 15**,** United States Air Force Invoice, or SF 44 to pay for guard services. If US military personnel are not available to guard the aircraft, a courier may be requested to transport COMSEC for storage at the US Embassy or a US facility. Locked aircraft equipped with an approved safe and aircraft security system (C-20/C-37) may be used to store COMSEC, regardless of the nationality of the security personnel.

7.2.3. **(Added-89AW)** The following items are minimum requirements for PL-1, PL-2, and PL-3 aircraft with RAVENs:

7.2.3.1. **(Added-89AW)** Two vehicles (one point vehicle and one shift change vehicle with driver).

7.2.3.2. **(Added-89AW)** Communications capability (radio or telephone) with embassy, airport police or local law enforcement.

7.2.3.3. **(Added-89AW)** RAVEN guard and a tail guard supplied by host nation or local security (local tail guard N/A if located at a US military base). For ground stops less than four hours, a tail guard is not required.

7.2.3.4. **(Added-89AW)** Four controlled entry signs printed in the host nation language.

7.2.3.5. **(Added-89AW)** Ropes, stanchions, area lighting.

7.2.3.6. **(Added-89AW)** Access to restrooms on the aircraft for RAVEN personnel.

7.3. Air Force Installation Security Program. The following security procedures will implement AFI 31-101 requirements for VIP Aircraft:

7.3.1. PIC Authority. The PIC will ensure that adequate aircraft security measures are provided at all times.

7.3.2. Advance Security Support Arrangements. The PIC will ensure security support has been coordinated at en route stations in advance. If security requirements cannot be met prior to departure, the airfield may be deemed unsuitable for RON by the unit. Units may

use ORM teams and Mission Assessment Groups (MAG) to integrate MAJCOM and AOR Intel/Threat Working Group (TWG) recommendations to determine suitability. OG/CC or equivalent is arbiter for security. Home station CP and unit C2 will assist the PIC for alert missions or en route diversions.

7.3.3. Briefings. When required, PICs will obtain threat assessment and security capability evaluation briefings before departing home station. Unit C2 will provide the PIC with pertinent updates en route.

7.3.4. Baggage Security. Baggage not certified safe for loading by a responsible government agency will be inspected prior to loading at the PIC's discretion. Verify baggage identification against passenger manifest. Aircrew members will secure their own baggage. The PIC is responsible for explaining baggage security requirements to the mission contact.

7.3.4.1. On PL-1 and PL-2 aircraft, all passenger baggage will be inspected prior to loading. A RAVEN will verify baggage identification against the passenger manifest.

7.3.5. Fuel Security.

7.3.5.1. Fuel for PL-1 Presidential Aircraft must pass a laboratory analysis and be secured until used. The USAF advance agent will obtain and secure this fuel.

7.3.5.2. Fuel for other aircraft do not require secured fuel. Use fuel obtained from large capacity, high use sources not pre-designated for VIP Aircraft.

7.3.6. Flight Line Photography. There are no restrictions on exterior photography of VIP Aircraft. Interior photography is also allowed with the exception of the VC-25 and enroute aircraft. Interior photos of the VC-25 must be coordinated with WHMO through the PAG/CC. Interior photos of enroute VIP Aircraft are at the discretion of the PIC and the principle DV. Care must be taken to remove all classified materials from sight prior to authorizing any photography. Specific airfields may have restrictions regarding the photography of aircraft.

7.3.7. **(Added-89AW)** Narcotics/Bomb Detection Dogs on SAM Aircraft. 89 AW policy is that no narcotics/bomb detection dogs will be permitted on any 89 AW aircraft. Exceptions to this policy are listed in paragraphs 7.3.7.1. and 7.3.7.2. RAVENs will ensure the K-9 team is pre-announced to all personnel before entering the aircraft and will accompany the team at all times. A flight engineer or flying crew chief will accompany the team during the exterior inspection to ensure all panels or doors are properly secured. This policy will be followed to the maximum extent possible with exceptions handled on a case-by-case basis as approved by 89 OG/CC.

7.3.7.1. **(Added-89AW)** All SAM aircraft upgraded to PL-1 or PL-2 status require an interior sweep inspection by a K-9 team.

7.3.7.2. **(Added-89AW)** If the aircrew suspects aircraft tampering, the pilot-in-command may authorize a K-9 search.

7.4. Not Used.

7.5. En Route Security.

7.5.1. Aircraft Access Control. Positive control of access to VIP Aircraft is mandatory.

7.5.1.1. RAVENs control access, after coordination with the PIC, to Presidential, Presidential Support, and certain other VIP Missions and will accompany these aircraft during the missions. When directed by the OG/CC, ASNCOs control access to VIP Aircraft. They will positively identify all individuals granted unescorted entry to the aircraft.

7.5.1.1. **(89AW)** RAVENs will not grant unescorted entry to un-manifested passengers. Unescorted entry is restricted to manifested passengers and those aircrew members, maintenance, and support personnel listed on the applicable unescorted entry list (UEL). PICs may permit other personnel to enter the aircraft when escorted by an authorized aircrew member. The PIC will ensure the RAVEN is notified of each approved visit and an authorized aircrew member properly escorts the visitor(s). Limit approval for unofficial visitors as necessary to maintain adequate security. An aircrew member escort will identify and vouch for those visitors who are authorized on the aircraft. Escorts will maintain constant surveillance of visitors while on or near the aircraft.

7.5.1.2. When RAVENs do not accompany aircraft, the aircrew is responsible for controlling access. At USAF installations, a passenger service representative normally assists in boarding passengers. The passenger service representative should be at the aircraft prior to passenger arrival and remain at the aircraft until loading is complete. Monitor all servicing and support personnel. Do not allow unidentified personnel onboard or around the aircraft. Escort unofficial visitors on board the aircraft and keep them under surveillance until they depart.

7.5.1.2.1. **(Added-89AW)** Airfield security at non-USAF airfields is not guaranteed. Aircrews will secure the aircraft IAW Table 7.1. when the aircraft will RON at any non-USAF airfield, and RAVENs are not providing aircraft security.

Table 7.1. (Added-89AW) Aircraft Security.

	Main Entry	Aft Entry	Emergency Exit	Lower Cargo
C-20/C-37	Lock	Lock	Pin	N/A
C-32/C-40	Lock	Lock	N/A	Lock

7.5.2. Use of Aircraft Sealing Devices. Except for Presidential, Presidential Support, and SDSAM aircraft protected by a RAVEN, VIP Aircraft should be sealed (at the discretion of the PIC) during all RONs and during any ground time when aircrew is absent from the aircraft. Seal doors and hatches according to local wing directives. Aircraft with an onboard ground security system meet the intent of this paragraph.

7.5.3. Refer to chapter 15 of this AFI for specific RAVEN procedures.

7.5.4. RAVEN policy. Typical teams will consist of a minimum of two USAF security force members depending on MDS and MAJCOM security requirements. The team travels as MEPs and are responsible to the PIC at all times. In turn, PICs are responsible for their

welfare (transportation, lodging, etc.). PICs will ensure security team members receive a mission briefing and aircraft egress/passenger briefing (as appropriate).

7.5.4.1. **(Added-89AW)** Normally, the 89 OG/CC will determine RAVEN requirements for 89 AW SAMs at the weekly MAG. SOCs and/or PICs will coordinate intel and aircrew mission brief times with 316 SFS to ensure RAVEN attendance. PICs will ensure RAVENs have required passports, visas, shot records, etc., at the aircrew mission brief. Consult the AMC Threat Matrix for a complete list of RAVEN-required locations.

7.5.4.1.1. **(Added-89AW)** 89 AW missions requiring RAVEN support will require a point vehicle for all extended stopovers and RONs. If difficulties are encountered during mission planning, the PIC will notify the 89 OG/CC, through 89 OG/OGO for coordination with the local embassy attaché officer. If an unforeseen point vehicle problem arises after arrival, it will be up to the PIC to make the final decision. Any deviations from this policy will be reported to 89 OG/OGO as soon as possible.

7.6. Detecting Unauthorized Entry.

7.6.1. Suspected Unauthorized Entry. If the PIC suspects the aircraft has been tampered with or subjected to unauthorized entry, take the following actions:

7.6.1.1. Notify the local security authorities and request a thorough inspection of the aircraft for sabotage, explosive devices, and pilferage.

7.6.1.2. Notify CP and C2 centers. Advise them of any requirements for assistance, and give them your estimate of a revised departure time.

7.6.1.3. If there are indications that sabotage is a definite possibility or if security inspections may delay the DV party, notify the mission contact officer. Establish suitable departure time and if necessary, coordinate suitable alternate transportation through current operations or SOC.

7.6.1.4. Monitor the security check of the aircraft. When cleared by security authorities, conduct a thorough preflight inspection. Look for broken wiring, damaged components, foreign devices, etc.

7.6.1.5. If both the security authorities and the PIC are assured aircraft is safe to fly, notify the OG/CC. Depart only with the OG/CC approval. ***EXCEPTION:*** Presidential missions may depart with PAG/CC approval. Safety and aircraft security take priority over minimizing DV inconvenience.

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

7.7. Preventing and Resisting Hijacking.

7.7.1. General Hijacking Guidance. A hijacking could create a serious international incident and jeopardize the safety of passengers and crew. High level DVs traveling aboard VIP Aircraft increase potential severity of any hijacking incident. Expect the National Military

Command Center (NMCC) to become involved in resolving hijack crises. Military C2 is central POC if a hijacking threatens your VIP Aircraft or passengers at any location. The PIC is the coordinating authority for anti-hijacking procedures. The PIC has first-hand knowledge of the situation and must take every opportunity to keep command authorities apprised of the situation. Use military C2 channels to contact NMCC, who in turn will relay instructions to the PIC.

7.7.2. The Air Transportation Act of 1974 and the Federal Aviation Act of 1958, as amended, vest the FAA Administrator with exclusive responsibility for the direction of law enforcement activity in aircraft hijacking situations involving all aircraft (civil and military) in-flight in the United States.

7.7.3. In taking action during an aircraft hijacking situation, military forces will act under military command within the scope of their duties.

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

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

7.7.6. A concerted effort must be made to prevent the hijacking of military or military contract aircraft by detecting potential hijackers before they board the aircraft.

7.7.7. Should preventive efforts fail, any actual attempt to hijack a military aircraft must be resisted in a manner appropriate to the situation. Resistance may vary from dissuasion to direct confrontation, including the use of weapons. RAVENs are authorized to use weapons to subdue a hijacker.

7.7.8. 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 and apprehension of the hijackers may require use of specialized law enforcement techniques and procedures.

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

7.7.10. In the case of an aircraft carrying passengers, the primary concern is the safety of the passengers.

7.7.11. Assistance to hijacked civil or military contract aircraft will be rendered as requested by the PIC of the aircraft and the authority exercising OPCON of the anti-hijacking effort.

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

7.8.1. Preventive measures include the following:

7.8.1.1. The host station passenger processing or manifesting facility should conduct anti-hijacking inspections.

7.8.1.2. Do not board passengers until the PIC is fully satisfied with inspection results.

7.8.1.3. In the absence of qualified passenger service representatives, the PIC will ensure the anti-hijacking inspection of passengers and baggage is accomplished.

7.8.2. Medical facility commanders are responsible for anti-hijacking inspection of patients. When patients are delivered to the aircraft by civilian sources, the aircrew will perform required inspections prior to loading.

7.8.3. During exercises or contingencies in support of combat operations involving the movement of large groups of personnel, the unit being supported should manifest passengers and perform anti-hijacking inspections.

7.8.4. Passengers will not carry weapons or ammunition on their person or in hand-carried baggage aboard an aircraft. ***EXCEPTION:*** Special agents, guards of the Secret Service or State Department, Personal Security Details and other individuals specifically authorized to carry weapons.

7.8.4.1. **(Added-89AW)** 89 OG Armed Passengers and Weapons Handling Procedures. At the aircrew mission brief, inform the lead RAVEN, or designated representative, of any passenger wishing to travel with a weapon. Appoint another crewmember to take control of unauthorized weapons if RAVENs are not assigned to the mission. Aircrews will enforce the following procedures when armed passengers are on-board the aircraft:

7.8.4.1.1. **(Added-89AW)** Mission Contact will inform the PIC of any passengers that will be armed.

7.8.4.1.2. **(Added-89AW)** Personal Security Officers (PSO), State Department Protective Agents, and USSS Protective Agents are allowed to keep their weapons while on the aircraft. Weapons will be holstered/secured in flight.

7.8.4.1.3. **(Added-89AW)** If the passenger is not one of the approved personnel IAW paragraph 7.8.4.1.2., they must clear their weapons outside the aircraft and turn their weapon over to a RAVEN (to be stored in a secure case or safe if available). Comply with weapons clearing procedures in paragraph 7.8.5.

7.8.4.1.4. **(Added-89AW)** Weapons will be returned to passengers after landing and aircraft has stopped.

7.8.5. If weapons must be cleared, ask the individual to:

7.8.5.1. Move to a safe, clear area at least 50 feet from any aircraft, equipment, or personnel before unholstering or unslinging their weapons.

7.8.5.2. Clear weapons IAW standard safety procedures.

7.9. Initial Response. When an act of air piracy involves an Air Force installation or aircraft within the United States, response will be 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.

7.9.1. To counter a hijacking, actual or threatened, delay movement of the aircraft to provide time for ground personnel and the aircrew to establish communication and execute coordinated resistance actions.

7.10. In-Flight Resistance. 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:

7.10.1. Engage the hijackers in conversation to calm him or her and to evaluate what course of action might be effective.

7.10.2. Dissuade the hijacker.

7.10.3. Use facts or subterfuge to convince the hijacker intermediate stops are necessary.

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

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

7.10.6. Never give up control of the aircraft to a hijacker.

7.11. 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. Detailed guidance is contained in AFI 13-207.

7.11.1. Crews will transmit an in-the-clear notification of hijacking to ATC. If an in-the-clear transmission is not possible, set transponder to 7500. If unable to set the transponder, or if not under radar control, transmit a radio message indicating transponder change to 7500.

7.11.2. Aircrews will not use the covert signals depicted in AFI 13-207 Table 2, Covert Signals, to communicate the presence of a hijacking situation. Code words, covert notification actions, and further transponder changes will not be used.

7.12. 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.

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

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

7.12.2.1. Maintain TAS not more than 400 knots.

7.12.2.2. Maintain an altitude between 10,000 and 25,000 feet if possible.

7.12.2.3. Fly a direct course toward destination announced by the hijacker, if no course is specified.

7.12.2.4. 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.

7.12.2.5. Set Mode 3 code 7700 on transponder.

7.12.2.6. If radio contact cannot be established, follow procedures set forth in FLIP.

7.12.3. 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.

7.13. Arming of Crewmembers. Aircrews will be armed on all overseas missions unless RAVENs are a part of the crew (not required for a CONUS depot input for OCONUS units). Units will establish which crewmembers will be armed in their supplement to this AFI. All crewmembers should know who is armed. Arm aircrews on CONUS missions only when directed by the current operations or SOC IAW OPORD or OPLAN. Unit commanders will ensure that crewmembers are trained in weapon issue, loading, safety, firing, transfer, and receipt procedures. Comply with AFI 31-207, *Arming and Use of Force by Air Force Personnel.* If an armed crewmember must leave the crew en route, transfer the weapon to another authorized crewmember using AF Form 1297, *Temporary Issue Receipt*.

7.13. (89AW)Arming of Crewmembers. For C-20/C-37 OCONUS missions without RAVEN support, the FE will be armed. For C-32/C-40 OCONUS missions without RAVEN support, the CSO will be armed.

7.13.1. Standby/Alert Launches. Do not delay the mission to pick-up weapons. If it appears there will be an unacceptable wait to get weapons, proceed to the aircraft and notify the CP.

7.13.2. Crew Rest. When crew must RON, secure weapons in the aircraft gun box with approved lock. Do not use local armories.

7.13.3. Wearing of Weapons. Wear weapons in holster, concealed at all times to prevent identifying armed crewmembers. Do not wear weapons off the flight line except to and from the C2 center, armories and other facilities associated with aircrew activities. When OCONUS, wearing weapons outside the aircraft is discouraged. Keep armed crewmembers inside the aircraft.

7.13.4. Weapons Storage In-flight. Crewmembers will be armed before preflight, onload, or offload duties and until completion of all offload duties. When no passengers are onboard, weapons may be stored in the gun box in-flight after a satisfactory stowaway check. Crewmembers will rearm before landing. Weapons need not be unloaded before placing them in a gun box.

7.13.5. Crewmembers will ensure they are reissued the same weapon until mission termination at home station.

7.13.6. Loading and Transfer of Weapons. Load and unload weapons at approved clearing barrels if available. Do not use a hand-to-hand transfer of loaded weapons to another crewmember; place the weapon on a flat surface.

7.14. Force Protection. Crews must be alert to the possibility of terrorist activities at all times. Reference AFMAN 10-100, *Airman's Manual;* Joint Service Guide 5260, *Service Member's*

Personal Protection Guide: A Self-Help Handbook to Combating Terrorism; AFI 10-245, *Antiterrorism;* and applicable AFTTPs for Force Protection measures. The following considerations may help crewmembers avoid becoming victims of terrorism when operating OCONUS:

7.14.1. 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:

7.14.1.1. Maintain good military bearing both on and off duty.

7.14.1.2. Avoid dressing in clothes that highlight the fact you are an American, i.e. cowboy hats, wide belt buckles, shirts with pro-American slogans, etc.

7.14.1.3. Do not wear clothing displaying profanity.

7.14.1.4. Know where "off limits" areas are and avoid them.

7.14.1.5. When possible, travel in groups of two or more.

7.14.1.6. Avoid demonstrations for any cause.

7.14.1.7. Avoid discussion of politics.

7.14.1.8. Avoid using ranks or titles in public places.

7.14.2. Ground transportation security. When traveling to and from billeting, messing facilities, etc. consider the following to minimize drawing attention to yourself as a potential target:

7.14.2.1. If possible, consider not using a car that announces government ownership.

7.14.2.2. Park in well-lighted areas.

7.14.2.3. Always lock your car. If possible, do not leave it on the street overnight.

7.14.2.4. Avoid isolated roads and dark alleys.

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

7.14.3.1. Avoid military style luggage such as B-4 bags and duffel bags with military logos, etc. Luggage tags should be nondescript and not reflect the type of mission (e.g. no souvenir luggage tags from previous VIP Missions). All bags, including hand-carried bags, will have luggage tags.

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

7.14.3.3. Wear conservative styled civilian clothing when using commercial transportation.

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

7.14.4.1. If possible, obtain rooms between the second and sixth floors.

7.14.4.2. Always lock interior locks when occupying rooms.

7.14.4.3. Always assume your room is monitored and avoid viewing or discussing classified material.

7.14.4.4. Sanitized crew lists with names only should be used to record room numbers.

7.14.4.5. At no time should the crew orders be given to hotel registration clerks.

7.14.4.6. Orders, itineraries, or other mission related materials should not be left in clear view in hotel rooms.

7.14.4.7. Avoid home station addresses on hotel registrations and baggage tags.

7.15. Protecting Classified Material on Aircraft. The PIC is responsible for protection of classified materials aboard their aircraft. The CSO, if available, is responsible for supporting the PIC with these duties. See requirements in AFI 31-401. As a minimum, ensure the IFF equipment is set to zero before leaving the aircraft.

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. See AFI 91-202, *The US Air Force Mishap Prevention Program*.

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 parent wing flying safety office. If a computer flight plan deficiency is involved, attach one copy of the AF Form 72, *Air Report (AIREP)* or AF Form 4053, *INS Flight Plan and Log*, and the CFP to the report. Send the report so that the parent wing flying safety office receives it within 5 days.

8.3. AF Form 651, Hazardous Air Traffic Report (HATR). The AF Form 651 is a tool to report near midair collisions and alleged hazardous air traffic conditions. See Attachment 3 of AFI 91-202 for more information concerning the HATR program.

8.3.1. AFI 91-204, and AFMAN 91-223, *Aviation Safety Investigations and Reports*, list HATR reportable incidents.

8.3.2. The PIC shall report the hazardous condition to the nearest ATC agency (e.g. ARTCC, FSS, control tower, or aeronautical radio station) as quickly as safety allows. Include the following information in the radio call (as appropriate):

8.3.2.1. Aircraft 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. Advise controlling ATC agency that the PIC will file a HATR upon landing.

8.3.3. Deadline to file a HATR is 24 hours after event via any communication mode available. If landing airport has a USAF airfield management function, submit completed AF Form 651 to the airfield management officer for forwarding to the wing safety office. If landing airport does not have an airfield management office, notify the safety office of the Air Force base nearest to location where the condition occurred, PIC's home base safety office, or as prescribed by overseas MAJCOM. In that case, provide contact sufficient information to prepare AF Form 651.

8.4. AMC Form 97, *AMC In-Flight Emergency and Unusual Occurrence Worksheet* (AMC and AMC Gained Only). The AMC Form 97 is a tool to notify appropriate authorities of any mishap involving crewmembers or aircraft. PICs shall complete all appropriate areas of the form in as much detail as possible. When notified, AMC C2 agents will inform their supervisor/commander to start investigation and reporting activities IAW AFI 91-204, and

Operations Report 3 (OPREP-3) procedures. In addition, PICs will preserve all mission and flight related documents, (e.g. flight plans, weather briefings, NOTAMs, Weight and Balance form, etc.) for collection by appropriate safety officials.

8.4.1. PICs will report crewmember or passenger injury, aircraft damage, or injury/damage to another organization's people or equipment caused by PIC's aircraft/crewmember. At a minimum, report the following:

8.4.1.1. Any physiological episode (physiological reaction, near accident, or hazard in-flight due to medical or physiological reasons). ***NOTE:*** Crewmembers and passengers involved in a physiological episode will see a flight surgeon to be evaluated and to ensure the incident is reported in the Air Force Safety Automated System (AFSAS) as soon as practical.

8.4.1.2. A human factor related situation, [e.g. misinterpretation of instruments; information overload (i.e. tactile, aural, and visual input too fast to permit reasonable analysis/decision); aircrew task saturation (i.e. too many responses/actions required in a short period of time); or confused switchology (i.e. adjacent switches where actuation of wrong switch creates dangerous situation)]. Anonymous reports are acceptable.

8.4.1.3. A condition that required engine shutdown, in-flight flameout, engine failure, suspected engine power loss, or loss of thrust that required descent below MEA. Engine failures include, but are not limited to, shrapnel from a failed internal engine component penetrating the engine case, engine case rupture/burn-through, engine nacelle fire, substantial fuel leak, or unselected thrust reversal. Consistent with safety, immediately report incidents that involve multiple engines (may report single-engine incidents upon landing). ***NOTE:*** Exclude intentional shutdowns for training and/or FCF unless the engine fails to restart.

8.4.1.4. A flight control malfunction (including the autopilot and trim systems) that results in an unexpected or hazardous change of flight attitude, altitude, or heading. Enter the flag words, "Reportable Flight Control Malfunction" in the AFTO 781A.

8.4.1.5. A landing gear malfunction aggravated by failed emergency system or procedures.

8.4.1.6. An in-flight loss of all pitot-static or gyro-stabilized attitude/directional instrument indications.

8.4.1.7. Any spillage/leakage of radioactive, toxic, corrosive, or flammable material from aircraft stores or cargo.

8.4.1.8. Conditions that required pilot to depart takeoff or landing surface.

8.4.1.9. All in-flight fires regardless of damage.

8.4.1.10. All bird/wildlife strikes regardless of damage.

8.4.1.11. Incidents that, in the PIC's judgment, are in the interest of flight safety.

8.4.2. Always provide your home station safety officer a copy of relevant information. Make every effort to preserve all mission and flight related documents, such as flight plans, weather briefings, NOTAMs, Weight and Balance form, etc., for collection by appropriate

safety officials. PICs shall use the following precedence to report mishaps (as soon as feasible after event):

8.4.2.1. MAJCOM flight safety officer (FSO).

8.4.2.2. Any FSO.

8.4.2.3. The nearest USAF C2 center.

8.4.2.4. Any USAF Airfield Management Operations.

8.5. Report Violations, Unusual Events, or Circumstances. PICs shall document events that require them to deviate from AFI 11-202V3 (unless waived by competent authority) or alleged navigation errors (include over-water position errors over 24NMs, border, or ATC violations). Do not release names or personal aircrew information to non-USAF agencies.

8.5.1. Describe deviation(s) using the following report format:

8.5.1.1. Facts. Report pertinent details of the event.

8.5.1.2. Investigation and analysis. Report circumstances which required/drove deviation(s).

8.5.1.3. Findings and conclusions.

8.5.1.4. Recommendations to prevent recurrence.

8.5.1.5. Corrective actions taken.

8.5.2. Include the following attachments with the report:

8.5.2.1. Formal notification of incident.

8.5.2.2. Approved crew orders.

8.5.2.3. Crewmembers' official statements (if applicable).

8.5.2.4. Other pertinent documents submitted in evidence (logs, charts, etc.).

8.5.3. In addition to above (when aircraft is equipped), PIC shall download original flight plan to a floppy disk and turn it in to the C2 center or parent standardization and evaluation office.

8.5.4. OG/CC shall send the original investigation report to the parent MAJCOM within 45 days of the event/notification. AFRC OG/CCs shall send original investigation report through channels to HQ AFRC/IGI within 35 days of the event/notification. HQ AFRC/IGI will send the investigation report to HQ AFRC within 45 days of event/notification.

8.5.5. Use OPREP-3 reporting procedures contained in AFI 10-206, *Operational Reporting*, for navigation errors over 24 NMs.

8.5.5.1. When notified of a navigation position error, the PIC (or agency that receives initial notification) shall document the circumstances surrounding the incident (using report format below) and ensure C2 agents submit an OPREP-3.

8.5.5.2. Include the following information in the report:

8.5.5.3. The name and location of agency/unit submitting report.

8.5.5.4. Affected mission identification number.

8.5.5.5. Reference OPREPs-3 to determine type of event (i.e., state "navigation position error.").

8.5.5.6. The date, time (Zulu), and location (e.g., ARTCC area) of alleged infraction.

8.5.5.7. Describe facts and circumstances. Include aircraft type and tail number, unit (aircrew's wing or squadron), home base, route of flight, point of alleged deviation, and miles off course.

8.5.6. PICs shall expeditiously report unusual events/circumstances that impact their mission to appropriate MAJCOM agencies. Reportable events include, but are not limited to, spectrum interference, uncoordinated aircraft interception, fuel dumping, multiple engine failure, hostile fire, injury to passenger or aircrew member, hostile attacks on aircraft communications networks, etc. This list is not all exhaustive. Most events require C2 agents to forward OPREP reports to higher headquarters. In all cases, pass the "who, what, when, where, why, and how" of the incident to a C2 agency.

8.5.6.1. The Spectrum Interference Resolution Program, covered in AFI 10-707, *Spectrum Interference Resolution Program*, establishes procedures to combat the effect of meaconing, intrusion, jamming, and interference. PICs who encounter EMI will report the event to the nearest C2 agency as soon as practical.

8.5.6.1.1. Address EMI reports to: HQ AMC SCOTT AFB IL//A6O// and addressees listed in AFI 10-707. Send reports via electronic message format with the following information in plain text:

8.5.6.1.1.1. Frequency selected when EMI occurred.

8.5.6.1.1.2. Equipment affected by EMI. Location of the system. The system function, name, nomenclature, manufacturer with model number or other system description. The operating mode of the system, if applicable (frequency agile, pulse doppler, search, etc.).

8.5.6.1.1.3. Description of EMI (noise, pulsed, continuous, intermittent, on so forth).

8.5.6.1.1.4. Effect EMI had on system performance (reduced range, false targets, reduced intelligibility, data errors, etc.).

8.5.6.1.1.5. Date(s) and time(s) of EMI.

8.5.6.1.1.6. Location where EMI occurred (coordinates or line of bearing, if known, otherwise state as unknown).

8.5.6.1.1.7. Source of the EMI if known.

8.5.6.1.1.8. List other units that received interference (if known) and their location or distance and bearing from your location.

8.5.6.1.1.9. A clear, concise narrative summary on what you know about the EMI, with any actions taken to resolve the problem.

8.5.6.1.1.10. Whether or not PIC wants expert/technical assistance (include level

of security clearance expert requires).

8.5.6.1.1.11. Specify impact the EMI had on your mission.

8.5.6.1.1.12. Provide a POC (Name, Rank, DSN/Commercial Phone Number, and Duty hours).

8.5.6.1.2. C2 agents must prepare an OPREP-3 if EMI is suspected meaconing, intrusion, or jamming, interference sufficient to cause a hazard, or if, in the PIC's judgment, the situation warrants such a report.

8.5.6.1.3. PICs shall serve as classification authority for EMI reports. Evaluate an adversaries' ability to exploit certain systems using EMI and protect information accordingly. PICs on a non-sensitive mission or who judge the EMI to be interference from a non-hostile source need not classify EMI reports unless that report would reveal system vulnerability. Classify interference report(s) at stations located in combat areas or during sensitive military missions.

8.5.6.2. On aircraft that dial into the GNOC, CSOs must report hostile attacks on aircraft networks to the GNOC, where protective measures will be implemented and reported. Hostile attacks may include penetration attempts, denial of service, viruses, or malicious code. This is not an all-inclusive list.

8.6. Petroleum, Oil and Lubricants (POL) - Aviation Fuels Documentation. This section prescribes aviation POL (AVPOL) procedures that ensure correct documentation, form and invoice processing, and program supervision (reference DESC-I-31, *Purchase of Aviation Fuel and Services at Commercial Locations)*. Use the Multi Service Corporation (MSC) AIR card for the purchase of aviation fuel and ancillary ground services at commercial airports (and some military installations) worldwide. The AIR card is authorized for use by all U.S. government aircraft, state, and local law enforcement aircraft, and some foreign government aircraft. All PICs should plan to use the "platinum" MSC card. In most cases, there will be no changes when refueling at non-Defense Energy Support Center (DESC) contract locations. The MSC card is accepted at approximately 4,800 locations worldwide. A list of all MSC-accepting merchants can be found at **https://www.airseacard.com**. It replaces the Standard Form (SF) 44, *Purchase Order-Invoice-Voucher*, at locations that accept the MSC card. MSC can be contacted 24 hours a day, 7 days a week regarding acceptance or refueling issues. Their toll free number is 1-866-308-3811.

8.6.1. Responsibilities. Aircrew and maintenance personnel will be familiar with AVPOL procedures and documentation requirements of this chapter. Improper use of the MSC card could create financial liability for the purchaser.

8.6.2. Refuel/defuel USAF aircraft at DoD locations whenever possible. If DoD service is not available, purchase fuel from other source(s) in 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. ***NOTE:*** DoD FLIP en route supplements identify locations with into-plane contracts.

8.6.3. AVPOL Forms Documentation and Procedures.

8.6.3.1. The DD Form 1898, *Fuel Sale Slip*, is the fuel transaction receipt used for purchases at other DoD locations, including DFSC into-plane contract locations. Log and place the DD Form 1898 inside the AF Form 664, *Aircraft Fuels Documenting Log*. The PIC or designated representative shall complete this form. ***NOTE:*** If the contractor insists on a unique invoice along with the DD Form 1898, annotate the vendor's invoice with "DUPLICATE DD Form 1898 ACCOMPLISHED."

8.6.3.2. The AF Form 664, *Aircraft Fuels Documenting Log***,** is a tool to log and store all AVPOL transaction forms. Record all off-station transactions on the front of the form and insert the original form inside the envelope. Turn in the AF Form 664, with supporting forms, to maintenance debriefing or as directed by local procedures. The PIC or designated representative shall complete this form when appropriate.

8.6.3.3. The SF 44 may be used to purchase fuel, ground services and/or other authorized products when no MSC card contract is in place.

8.6.3.3.1. SF 44 fuel purchases where FBO agrees to invoice DESC for payment.

8.6.3.3.1.1. The aircrew shall present the SF 44 as the purchase invoice when an FBO refuses to accept the MSC card. The aircrew shall complete the SF 44 and attach it to the FBO vendor ticket/invoice when the FBO also declines use of the SF 44 and uses its own invoice/receipt. Fuel purchases shall be documented on a separate SF 44 from ground services and other authorized products since the FBO must invoice DESC for the fuel and the customer for non-fuel product and services.

8.6.3.3.1.2. Copies 1 and 2 of the SF 44 shall be provided to the FBO. Copy 1 of the SF 44 and one copy of the FBO commercial invoice, if applicable, shall be forwarded to the following address by the FBO to bill/invoice DESC: DESC-RRF, Building 1621-K, 2261 Hughes Avenue, Suite 128, Lackland AFB, Texas 78236.

8.6.3.3.1.3. Copy 3 of the SF 44 and one copy of the FBO commercial invoice, if applicable, shall be provided to the aircrew. Log and place a copy inside the AF Form 664. Aircrews shall present all fuel purchase receipts to the designated aviation squadron Certifying Official and/or Accountable Official upon return to home station to enable timely validation and financial obligation processing into the Fuels Automated System.

8.6.3.3.2. SF 44 fuel purchases where the FBO requires cash payment.

8.6.3.3.2.1. Cash fuel purchases are only authorized when either the FCG, requires cash payment, or when FBO locations outside the United States and U. S. Territories refuse MSC card and/or SF 44 invoicing processes. Aircrews required to pay cash for aviation fuel purchases shall employ the following procedures (***NOTE:*** these procedures do not apply to non-fuel products or services):

8.6.3.3.2.1.1. The aircrew shall obtain cash from a local DoD Finance source that is charged to an approved Treasury suspense account prior to home station departure.

8.6.3.3.2.1.2. Aircrews shall complete the SF 44 and obtain the FBO fuel

vendor annotation in block 11 of the SF 44 to confirm total cash amount and also sign and date the SF 44 blocks 20 and 21. Log and place a copy inside the AF Form 664. Aircrew shall return unused cash to their local DoD Finance source upon return to home station. Present the completed SF 44 (for non-fuel charges only) to the appropriate home station administrative personnel for processing (e.g., Wing Refueling Document Control Officer, Finance Office, etc.)

8.6.3.3.3. SF 44 purchases of ground services and other approved products (not fuel).

8.6.3.3.3.1. Complete a separate SF 44 for non-fuel purchases. Provide the FBO copies 1 and 2 of the SF 44. The FBO shall use copy 1 and one copy of the FBO commercial invoice, if applicable, to directly bill/invoice the purchasing organization. Block 9 of the SF 44 shall reflect the organization name and address of the finance office responsible for payment to the FBO. The purchasing organization shall make payment to the FBO upon receipt of the invoice from the FBO. Log and place a copy inside the AF Form 664.

8.6.3.3.4. If the vendor presents their own form for signature and accepts the SF 44, write the statement "SF 44 Executed" on the vendor's form.

8.6.3.3.5. Turn in two copies of the SF 44 to the operations officer at home station.

8.6.3.3.6. Present the aircraft identaplate for purchases at SITCO Agreement locations. Make certain the invoice includes date of transaction, grade of product, quantity issued/defueled, unit of measure, and signature of USAF member who accepted product. If vendor also requires completed SF 44 write statement, "AF FORMS EXECUTED" on vendor's invoice. Log and place a copy inside the AF Form 664.

8.6.3.4. Purchasing Aviation Fuel in Canada. The DoD and Canadian Department of National Defense have signed a memorandum of understanding allowing DoD aircraft to use the DD Form 1896 when refueling at Canadian airfields with a Canadian National Defense Contract (CNDC). Use the AIR card for fuel purchases at Canadian airports without a CNDC, and for ground handling services at all Canadian airports.

8.6.3.5. Host Nation Forms. Use host country forms to effect purchases at foreign military airfields, including "replacement-in-kind" locations. Hand scribe information from aircraft identaplate on the local form. Log and place a copy inside the AF Form 664.

8.6.3.6. AF Form 1994, *Fuel Issue/Defuel Document***,** records fuel purchases at USAF bases using a valid DD Form 1896. The PIC or designated representative shall complete the form then log and place a copy inside the AF Form 664.

8.6.3.7. AFTO 781H, *Aerospace Vehicle Flight Status and Maintenance Document*, records POL actions for particular airframe IAW applicable directives. The PIC or designated representative shall complete the form and turn it in to maintenance debrief following the mission.

8.6.3.8. DD Form 1896, *DoD Fuel Identaplate*, is the aircraft fuel and oil charge card.

8.6.3.9. For off-station missions, the PIC will complete or verify accuracy of the AF Form 15, AF Form 664, AFTO 781H, DD Form 1898, and associated fuels receipts then place them in the AF Form 664 (use eight digits for all USAF aircraft tail number entries). The PIC will transmit all AF Form 664 information via phone, fax, or message if mission causes him/her to be off-station past the last day of the month (unless addressed in the unit supplement to this AFI).

8.6.3.10. Mexican non-DESC-contract refuelings. There are no changes when refueling at the following non-DESC-contract Mexican locations and identified merchant(s): Monterrey (ICAO - MMMY) Aero Servicios Monterrey; Monterrey (ICAO - MMAN) Aero Corporacion Azor, Asertec, Avianet Intl de Mexico, Aeroservicios Monterrey; Puerto Vallarta (ICAO - MMPR) Aerotron; Satillo (ICAO - MMIO) Services Est Aero, Mexhaga; Toluca (ICAO - MMTO) Aerolineas Jecutivas, Avemex, Uvavemex. When refueling is required in Mexico at other than these identified locations/merchants, aircrews should call World Fuel Services at 1-800-345-3818, extension 3 (24 hrs). Direct number is 1-305-428-8000. The call should be made 24 hours ahead of required refueling. Any requirement presented with less than 24 hours advance notice may not be met (but they will work the requirement as best they can to meet the user need). World Fuel Services must make arrangements with the Mexican governmental fueling authority to allow refueling, and the authority's business hours are M-Th, 0900-1400 and 1600-1700; Friday 0900-1400.

8.7. Not Used.

8.8. AMC Form 54, Aircraft Commander's Report on Services/Facilities. The AMC Form 54 is a tool to report level of excellence for services encountered during mobility operations. Be quick to identify outstanding performers and attempt to resolve problems at lowest level practical. PICs should advise affected agency on their intent to submit an AMC Form 54. Provide a copy of the completed form to local station AMC C2 agency. Upon return to home station, PICs will coordinate form with SQ/CC and OG/CC. For AMC Form 54s that require AMC coordination, OG/CCs shall review and submit AMC Form 54 to 18AF/CC.

8.9. AMC Form 196, Aircraft Commander's Report on Crew Member. The AMC Form 196 is a tool to document an aircrew member or Mission Essential Personnel's outstanding, below average, or unsatisfactory performance during a mobility mission. Be quick to identify outstanding performers and attempt to solve problems at lowest level practical (provide local senior leaders opportunity to resolve problems as they occur). Send the report to subject's unit commander.

8.10. AMC Form 43, AMC Transient Aircrew Comments. The AMC Form 43 is a tool to report level of excellence for transient facilities. Any crewmember may submit this report whether or not the PIC includes an unsatisfactory item in the trip report. Send completed AMC Form 43 to HQ AMC/A1SC, or MAJCOM equivalent.

8.11. (Added-89AW) 89 AW Form 87*, VC-25A Performance Data*. Navigators complete this form. Turn in one copy with the completed navigation logs. All items on the form are self explanatory. See for a sample of completed 89 AW Form 87.

8.12. (Added-89AW) 89 AW Trip Reports. Units may develop unit-specific trip reports for the purpose of documenting delays, unplanned diversions, or other unusual incidents. When a

trip report identifies issues that may require higher level resolution, forward reports to 89 OG/OGO.

8.13. (Added-89AW) DD Form 2131, *Passenger Manifest*. Air terminal personnel prepare the DD Form 2131. Normally, Andrews AFB terminal personnel prepare a manifest to cover the entire trip. If passengers are added or deleted, make the appropriate changes to the manifest. Indicate the exact passenger load for each mission leg by annotating the leg numbers next to each passenger's name. For classified missions, do not complete a manifest unless directed to do so by 89 OG/OGO. If space available passengers are carried, local air terminal personnel should prepare a manifest. If no local manifesting agency is available, the FA will complete the DD Form 2131. The DD Form 2131 is available on the web at: **Error! Hyperlink reference not valid.**. Space available passengers will not be listed on the manifest for the official party. Copies of passenger manifests should not be distributed. Normally, AMC passenger service agents only require the total number of DVs and the total passenger offloaded for their reports.

8.14. (Added-89AW) OPSEC Reminder Card. These cards are stored in the aircraft safe and are a reminder to customers of the importance of not passing classified and/or sensitive information over any non-secure communication links. Furthermore, it reemphasizes that all non-secure communications are subject to monitoring by other than friendly sources. These cards will be distributed during preflight and collected during post-flight duties. They will be placed nearby, and easily viewed from, each telephone.

8.15. (Added-89AW) 89 OG Aircrew HOTREP Reporting Guidance. HOTREPs will be initiated by the PIC, or designated representative, and forwarded directly to 89 OG/OGO for further processing. HOTREPs are required to be forwarded for any situation the PIC deems worthy of reporting up the chain of command. Examples of situations requiring HOTREPs include: degraded communication capability, dropped phone calls/faxes, etc., or negative comments regarding service or mission effectiveness. This is not all-inclusive. When in doubt, aircrews are encouraged to initiate a HOTREP.

8.15.1. **(Added-89AW)** HOTREP information will be forwarded by the 89 OG/OGO Duty Officer to 89 OG/CC/CD (24/7) for review before sending to 89 AW/CC.

8.15.2. **(Added-89AW)** FORMAT. For OPSEC reasons, the following guidelines must be strictly followed.

8.15.2.1. **(Added-89AW)** Do not reference the mission number (except when substituted for DV title due to Close Hold mission status).

8.15.2.2. **(Added-89AW)** Do not include specific operating locations or future destinations (city, airport name or ICAO).

8.15.2.3. **(Added-89AW)** The DV's title is used, except on Close Hold missions (NO reference to Avisource DV Code should be used, if also mentioning the DV's name or title in any mission communication). ***NOTE:*** Close Hold missions will substitute the mission number for DV title.

8.15.2.4. **(Added-89AW)** Below is the exact format (in e-mail format ONLY; DO NOT send as a MS Word attachment):

1. DV TITLE: (i.e. VPOTUS, SECSTATE, SECDEF, CJSC, CSAF, AMC/CC, CODEL-name, Msn 13964 (Close Hold), etc)

2. DATE/GMT/MSN CUT LEG #: (i.e. 12 Dec/2350Z/2)
3. AIRCRAFT TYPE: (i.e. C-20, C-37, C-40, C-32)
4. INCIDENT: A brief description of any issue that impacts timely mission movement or customer service support (including communication problems) that could impact a DV, along with an assessment of DV impact.

8.15.3. **(Added-89AW)** E-mails that follow up initial telephone message should be titled simply with the DV's title, the word HOTREP, DATE/GMT/LEG, and aircraft type info in parenthesis. Example: "CJCS HOTREP (12 Dec/2350Z/2) C-40"..."CODEL-Simpson HOTREP (26 Dec/1415Z/8) C-20"..."Msn 12345 HOTREP (Close Hold) C-37"

8.15.4. **(Added-89AW)** The DATE/GMT are simply the approximate Zulu date and time the HOTREP is sent from the aircrew to 89 OG/OGO and is used only to differentiate between multiple HOTREPs for the same DV on any particular mission.

8.15.5. **(Added-89AW)** Send all HOTREPs to the 89 OG/OGO organizational box (**Error! Hyperlink reference not valid.**). PICs must contact the OGO duty officer by phone to ensure receipt of the HOTREP (301-981-5712 or through CP 301-981-5058). PI

8.15.6. **(Added-89AW)** For 89 AW CSOs and FAs participating in C-17/KC-10 SAP/other missions, pass any service HOTREP incident information to the C-17 or KC-10 Mission Commander and they will send HOTREPs up their chain of command. However, 89 AW CSOs will ALWAYS pass any comm-related HOTREPs directly back to 89 OG/OGO, and copy the C-17/KC-10 Mission Commander.

8.16. (Added-89AW) Special Airlift Program (SAP) SITREP Reporting Guidance. The following guidance applies to all 89 OG CSOs flying on Special Airlift Program (SAP) KC-10 and C-17 missions.

8.16.1. **(Added-89AW)** CSOs flying SAP missions will complete an additional daily SITREP to facilitate the timely and accurate flow of information and communications equipment status to 89 AW leadership. This SAP SITREP will detail which communications equipment was used, how much that equipment was used, the performance of the equipment, DV satisfaction level with equipment/aircrew and any equipment malfunctions that may impact future operations. There should NEVER be a “NSTR” SAP SITREP.

8.16.2. **(Added-89AW)** An example SAP SITREP follows:

Subject: SECDEF SITREP (23 Jan 10)
1. DV TITLE: SECDEF
2. DATE: 23 Jan 10
3. MISSION STATUS: No issues to report with Steel Eagle #1 on Legs 1 and 2. Both high speed and low speed systems used extensively on last half of leg 1. No issues, system worked 5/5. Leg 2 was a short leg with minimal comm usage. Both high speed and low speed systems used, system worked 5/5.

8.16.3. **(Added-89AW)** Send all SAP SITREPs to the 89 OG/OGO organizational box (**89og.ogo@afncr.af.mil**) AND the 89 OSS/DO.

8.17. (Added-89AW) 89 OG Mission Reports (MISREPS).

8.17.1. **(Added-89AW)** PICs on missions transiting a Tier 1 or Tier 2 country (secure launch locations) are responsible for completing the Intel-provided Intelligence Debriefing

Checklist. This checklist will be given to the PIC prior to departure, during the pre-mission intelligence briefing. All aircrew members on these missions are responsible for ensuring PICs are kept apprised of any reportable information. If there are no reportable incidents, check the "NSTR" box, sign, and date. Once completed and signed, include the debriefing checklist with the post-mission paperwork returned to the SOC. 89 OG/OGI will collect the debriefing checklists from the SOC.

8.17.2. **(Added-89AW)** During mission execution, aircrews will contact 89 OG/OGO and 89 OG/OGI immediately if any of the following events occur: aircraft intercept, jamming, lasing, SAFIRE event, significant sighting or spotlighting. Refer to the debriefing checklist for 24-hour contact phone numbers. Conditions permitting, do not delay reporting to wait until landing at the next base, or return back to Andrews, as this information is time sensitive and may affect other operations in the area.

Chapter 9

TRAINING POLICY

9.1. Passengers on Training Missions.

9.1.1. Carrying of passengers during initial or re-qualification training will be IAW with AFI 11-401 and this instruction.

9.1.2. Mission qualification training, en route evaluations, OSTs, and line development missions may be conducted on missions with passengers provided the individual in training is qualified (completed aircraft evaluation with a valid AF Form 8).

9.1.3. Multiple practice approaches will not be accomplished with passengers. ***EXCEPTION:*** When approved by the parent MAJCOM/A3, maintenance and civilian employees, under direct contract to the DoD and engaged in official direct mission support activities, considered mission essential may be onboard when touch-and-go landings are performed providing the mission is a designated training flight and an IP or EP is in command.

9.2. Touch and Go Landing Limitations. Practice touch-and-go landings only on designated training, evaluation, and currency missions.

9.2.1. Touch-and-go landings. May be performed by:

9.2.1.1. Instructor pilots, instructor pilot candidates on initial or re-qualification instructor evaluations, and flight examiner pilots from either seat.

9.2.1.2. Any pilot from either seat provided that an instructor pilot, instructor pilot candidate on initial or re-qualification instructor evaluation, or flight examiner pilot is in the other seat.

9.2.2. Wind and runway restrictions. Comply with wind restrictions, RCR and crosswind limits, and runway requirements in chapter 5 of this AFI. Do not exceed the normal or recommended zone of FCM takeoff and landing crosswind component charts.

9.2.3. Weather. The minimum reported weather required to perform touch-and-go landings is 300 foot ceiling and RVR 40 (3/4-mile visibility without RVR).

9.2.4. Passengers. Touch-and-go landings with passengers are prohibited. Touch-and-go landings with MEPs are authorized.

9.2.5. Reverse thrust. Do not place the throttles in reverse or below flight idle (except C-20B) during a touch-and-go landing. Rejected takeoffs will not be practiced.

9.2.6. Heavy jets. Do not perform touch-and-go landings when 747, C-5 or 757 aircraft are operating in the VFR pattern. ***EXCEPTION:*** C-32 and VC-25 aircraft are only restricted to a minimum of 2 minutes spacing.

9.2.7. Stop-and-go-landings. Stop-and-go-landings are not authorized.

9.2.8. Minimum Runway for Touch and Go Landings. The minimum runway for touch and go landings is per the FCM or **Table 9.1**., whichever is greater. For all aircraft, ensure

aircraft performance assures full stop capability corrected for [configuration, pressure altitude (density altitude if appropriate), temperature, RCR/RSC and crosswinds] per FCM.

Table 9.1. Minimum Runway Length for Touch and Go Landings.

MDS Aircraft Type	Minimum Runway Length
C-9	7000’ (1)
C-20/C-37	5,000’/1667m (1, 2)
C-32/C-40	6,000’/1829m (1)
VC-25	(1)
NOTES: 1. The PAG/CC specifies minimum runway requirements for Presidential Aircraft operations. 2. C-37 partial flap touch and go landings require a minimum of 7000’.	

9.3. Tactical Training. Accomplish tactical training, including tactical descents, arrivals, and departures IAW AFI 11-2SAM-CSM-DVGV1, this AFI, applicable AFTTPs, and local guidance. Observe aircraft operating limits at all times. Reference chapter 19 of this AFI.

9.4. Simulated Emergency Flight Procedures.

9.4.1. Simulated emergency procedures other than engine-out approaches and landings will be limited to non-critical phases of flight and will be kept to a minimum at night or in IMC. Simulated emergency procedures will only be conducted under direct supervision of an IP. Use a realistic training/evaluation approach and do not compound emergencies.

9.4.2. Special Maneuvers. Refer to applicable MDS directives or approved Stan/Eval checklist handouts or guides for procedures to accomplish simulated emergency flight training and tactical maneuvers that are not covered in the FCM.

9.4.3. Simulated engine failures. Simulated engine failures are not authorized at less than the engine-out minimum control speeds (as published in the FCM) or when any actual emergency exists.

9.4.3.1. Do not perform simulated engine-out approaches at night or in IMC (VC-25 reference paragraph 9.4.5. of this Instruction).

9.4.3.2. AMC. Do not perform simulated engine-out approach training in the aircraft. ***EXCEPTIONS:*** This paragraph does not apply to PACAF, USAFE, ANG or AFRC. PAG/CC may approve simulated engine-out training on a case by case basis. This authorization is not intended to replace the use of the FTD.

9.4.4. C-32 and C-40. Do not perform simulated emergency procedures or simulated engine out approach training in the aircraft. ***EXCEPTION:*** PAG/CC may approve simulated

emergency procedures or simulated engine-out training on a case by case basis. This authorization is not intended to replace the use of the FTD.

9.4.5. VC-25. The minimum weather for simulated engine-out approaches/landings and no-flap approaches is published circling minimums (use 600/2 if circling minimums are not published) during daylight, and 1000/2 or circling minimums, whichever is higher, at night.

9.4.6. Do not perform no-flap or no-slat approaches at night or in IMC.

9.5. Fuel Planning.

9.5.1. Planning Factors for Local Flights. When planning fuel requirements for local flights, consider planned flight training times, planned ground times between locals, and planned minimum landing fuel requirements, IAW chapter 17 of this AFI. Local training flights may be scheduled for more or less flying time with the proper coordination.

9.5.1.1. IPs and EPs will initiate an approach to a full stop landing when fuel on board is equal to or less than the amount specified in chapter 17 as the minimum fuel for landing. Request priority handling from air traffic control if necessary.

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).

9.6.1.1. In an actual emergency, terminate all training and flight maneuvers practice. Training should be resumed only when the PIC determines it is safe to do so.

9.6.2. Training Maneuver Restrictions. The following training maneuver restrictions apply to all applicable MDS aircraft unless specific aircraft are listed. Use **Table 9.2** Training Maneuver Restrictions and minimum altitudes.

Table 9.2. Training Maneuver Restrictions.

Maneuver	Altitude Restrictions	Other Restrictions
Actual Engine Shutdown C-9, C-20, C-32, C-37, C-40, VC-25	5,000 feet AGL Minimum	Do not practice actual engine shutdown unless required for an FCF or for an FCF training flight. Under no circumstances will an engine be shutdown for engine out landing or missed approach training.
Any Simulated Emergency **On Takeoff** **On Approach**	 Initiate at or above 500 feet AGL Initiate at or above 500 feet AGL	For simulated engine failure on takeoff, IP must guard incorrect rudder.
Simulated Engine Out Go-	Initiate at or above 500 feet	In the event of an unplanned

Around or Missed Approach C-9 C-20, C-32*, C-37, C-40*, VC-25 *PAG/CC approval required	AGL Initiate at or above 200 feet AGL	go-around/missed approach below 500' AGL (C-9) or 200' AGL (all others), use all engines. IP must guard incorrect rudder. On C-9 IP upgrade and evaluation flights, descent to 300 feet AGL is authorized provided both engines are used for the go-around.
Approach to Stalls C-9, C-20, C-37, C-40	10,000 feet AGL minimum	Limited to day VMC conditions. Do not accomplish unless required for FCF training, certification, or accomplishment.
Restricted Low Approaches-Men and/or Equipment On Runway	Initiate at or above 500 feet AGL	None
Planned VFR Go-Arounds With Simulated Emergencies Other Than Engine Out	Initiate at or above 100 feet AGL	None
Simulated Landing C-20, C-37, C-40	Initiate at or above 50 feet AGL	Limited to weather required for circling minimums. (See Note)
Steep Turns	5,000 feet AGL minimum	Limited to day, VMC conditions.
Slow Flight and Flight on the Back Side of the Power Curve C-9, C-20, C-32, C-37, C-40, VC-25	10,000 feet AGL minimum	Limited to day, VMC conditions.
NOTE: Simulated Landings. Use this procedure only when conducting simulated landing training and not to practice missed approaches; it allows simulated training in restricted aircraft when the objective is to practice setting up the correct landing picture. Begin the go-around no later than approximately 2,000 feet remaining. No simulated emergencies allowed. Use the normal landing configuration: Gear down, flaps 30/40 for the C-40, flaps 20/39 for the C-20/C-37. All other training restrictions apply.		

9.7. Prohibited In-Flight Maneuvers. The following maneuvers will only be accomplished in the simulator and not practiced or demonstrated in-flight:

9.7.1. Simulated engine-out takeoffs

9.7.2. Aborted takeoffs

9.7.3. Full stalls

9.7.4. Unusual attitudes

9.7.5. Dutch roll demonstrations

9.7.6. Simulated emergency descents

9.7.7. No-flap landings

9.7.8. No-flap approaches (except C-9, C-20, C-37, and VC-25)

9.7.9. No-slat landings

9.7.10. Simulated jammed stabilizer approach and landings

9.7.11. Split flap landings

9.7.12. Landing with inoperative hydraulic system

9.7.13. Rudder boost-off landing

9.7.14. Simulated two engine out flight

9.7.15. Tactics maneuvers (except MAJCOM approved tactics maneuvers)

9.8. Instructor Pilot Briefing. Before all training and evaluation missions, instructors and evaluators will thoroughly brief their crews on all aspects of the mission according to locally developed briefing guides. Briefing guides will be approved by unit OG/OGV.

9.8.1. **(Added-89AW)** Senior Officer Preflight Briefings. The following is a list of items that will be covered prior to flight with senior officers. This list is not all-inclusive. Use this list as a guide for each aircraft's particular pre-mission briefing.

9.8.1.1. **(Added-89AW)** Emergency equipment.

9.8.1.2. **(Added-89AW)** CRM.

9.8.1.3. **(Added-89AW)** Emergency egress.

9.8.1.4. **(Added-89AW)** Oxygen use.

9.8.1.5. **(Added-89AW)** Cockpit familiarization/seat adjustment.

9.8.1.6. **(Added-89AW)** Checklist procedures.

9.8.1.7. **(Added-89AW)** Engine starting procedures.

9.8.1.8. **(Added-89AW)** Taxi procedures.

9.8.1.9. **(Added-89AW)** Rejected takeoff procedures.

9.8.1.10. **(Added-89AW)** Normal takeoff procedures.

9.8.1.11. **(Added-89AW)** Takeoff emergency procedures.

9.8.1.12. **(Added-89AW)** Clean-up procedures.

9.8.1.13. **(Added-89AW)** Flap/gear sequence and timing in the pattern.

9.8.1.14. **(Added-89AW)** Important speeds.

9.8.1.15. **(Added-89AW)** Final approach procedures/airspeeds/configuration.

9.8.1.16. **(Added-89AW)** Flare/landing/aim point considerations.

9.8.1.17. **(Added-89AW)** Touch and Go procedures.

9.8.1.18. **(Added-89AW)** Full stop procedures.

9.9. Debriefing. Instructors and flight examiners will accomplish the following:

9.9.1. Review and evaluate overall training performed.

9.9.2. Review training requirements fulfilled for each student and aircrew member.

9.9.3. Answer technical questions.

9.9.4. For crewmembers requiring further training, assign specific areas for further study prior to the next training period.

9.9.5. Complete training and evaluation records.

9.10. 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.

9.11. CAT II/III ILS and EVS Approach Training.

9.11.1. CAT II/III training and evaluations may be conducted at any ILS facility where signal output is accurate and stable enough to achieve the desired training.

9.11.1.1. Weather. No lower than 200-foot ceiling and 1/2-mile visibility (RVR 24) or Category I minimums, whichever is greater.

9.11.1.2. Winds. Maximum crosswind component will be IAW 5.15.8 of this regulation.

9.11.1.2.1. **(Added-89AW)** Maximum crosswind component for C-20 CAT II training is 15 knots.

9.11.1.3. When a CAT II DH is not published, DH will be based on HAT of 100 feet.

9.12. (Added-89AW) 89 AW Local Flight Training. provides a list of local training airfields approved for use by 89 AW aircraft. Locals at other airports require advance coordination with airport authorities, 89 OG/OGO, and careful review of all limitations and applicable directives by the PIC. Comply with all published restrictions and airfield-specific requirements. PICs are required to review all mission planning aspects of listed approved training fields (i.e. NOTAMs, Weight Bearing capacity, runway and taxiway obstructions, taxi wing-tip clearances, and obstacles). Local flying, including low approaches at Reagan National Airport (DCA), is prohibited.

9.12.1. **(Added-89AW)** Prior to filing a flight plan for a local training mission, the PIC must contact the Command Post and confirm the aircraft tail number, takeoff time, and duration of the flight.

9.12.2. **(Added-89AW)** Local Training Flights on Alert Aircraft. 89 OG/OGO may authorize use of the alert aircraft for local flying training. Departure times for locals on the alert aircraft will be scheduled by 89 OG/OGO. Locals on the alert aircraft are normally restricted to ADW, ESN, BWI, NHK, DOV, SBY, HEF, GED, FDK, MRB, and APG. In addition, RIC, WAL, CHO, ILG, HGR, LNS, MDT, PHF, and LFI are available with 89 OG/OGO approval. Other airfields may be approved when coordinated with 89 OG/OGO

and the aircrew remains in contact with the Andrews Command Post via HF radio. When flying locals in the alert aircraft, pilots will ensure that at least one crewmember is monitoring the Command Post frequency at all times. In the event of a recall, an immediate return to Andrews AFB is required. If maintenance problems develop affecting the mission capability of the aircraft, notify the command post and return to Andrews immediately.

9.12.3. **(Added-89AW)** 89 OG Pre-Approved Out-and-Back Airfields. Valuable training can occur for all aircrew specialties on single-day out-and-back flights within the CONUS. provides a list of out-and-back training profiles and airfields pre-approved by the 89 OG/CC. These training profiles and airfields are not intended to restrict or replace training accomplished by the Executive Airlift Training Center (EATC). Notify 89 OG/OGO when utilizing an

9.12.3.1. **(Added-89AW)** Out-and-back flights will be completed within a 16 hour FDP, with all transition training taking place with the first 12 hours of the FDP, IAW paragraph 3.7.1.5.2.

9.12.3.2. **(Added-89AW)** PICs are responsible for ensuring parking and proper aircraft servicing are available during the timeframe of the ground stop.

9.12.3.3. **(Added-89AW)** If weather prevents the corresponding transition airfield from being utilized, one of the local training airfields listed in

Chapter 10

AIRCREW OPERATIONS IN CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR THREAT ENVIRONMENT

10.1. Overview. The proliferation of Chemical, Biological, Radiological, and Nuclear (CBRN) weapons and the means to deliver them present serious security threats to the global operations of air mobility forces. This chapter describes the CBRN threat, passive defense measures to mitigate that threat, and guidance for ground and flight operations in a contaminated environment. If crews are not trained or equipped to operate in the CBRN environment, this chapter is for information only.

10.2. Understanding the CBRN Threat.

10.2.1. Chemical Weapons. Militarily significant chemical weapons include nerve, blister, choking, and blood agents. A key point for aircrew members to remember is that time is on your side. The ultra-violet (UV) rays of the sun, high temperatures, and high absorption rates of chemicals all decrease their lethality. Most chemical agents will either evaporate or absorb into surfaces. For decontamination, cleaning with hot soap and water and/or a 5 percent bleach solution currently appears to be the best and most practical method of removing chemical agents that may remain as a contact hazard on glass, and unpainted metal. Currently, the only decontaminate authorized for use on aircraft is soap and water. NOTE: Recent tests indicate that as a decontaminated aircraft dries, the absorbed chemical warfare agent (CWA) may resurface from painted surfaces causing contact and vapor hazards.

10.2.2. Biological Weapons. Biological warfare agents (BWA) are normally divided into three areas: bacteria (i.e., Anthrax) that live outside the cell, reproduce, and are normally susceptible to antibiotics; toxins (i.e., Ricin), that are poisons produced by living organisms or plants; and viruses (i.e., Smallpox) that normally require the host of a living cell to survive and reproduce. Viruses and toxins do not respond to antibiotics. It is probable that the medical community would be the first to recognize that an upsurge in “flu-like symptoms” is actually a bio attack. Although BWA are degraded by UV rays, humidity and high/low temperatures, some BWA (i.e., Anthrax spores) may have a long life, lasting decades under the right conditions. Current immunizations and good personal hygiene help prevent infection.

10.2.3. Radiological Weapons. The radiation dispersal device (RDD), or so-called “dirty bomb,” is the typical radiological weapon. RDD is any device that disseminates radioactive material without using a nuclear detonation. Key points to remember are that shielding and distance are the best defenses against radiation exposure.

10.2.4. Nuclear Weapons. The threat from a nuclear device is from the initial blast, heat, and radiation. In addition, the Electromagnetic Pulse (EMP) from a nuclear detonation can damage electronic equipment. The best protection is a combination of shielding, distance from the blast, and limited time of exposure.

10.3. CBRN Passive Defense Measures. Passive defense measures are those activities conducted to negate, contain, and manage the effects of CBRN attack. Passive defense measures include pre, trans, and post-attack actions designed to mitigate the CBRN threat through contamination avoidance, protection, and contamination control.

10.3.1. Contamination Avoidance. Contamination avoidance is the most important passive defense measure. Techniques for contamination avoidance include: inflight diversion, survival launch, and minimizing exposure to contaminated cargo, aerospace ground equipment (AGE), and material handling equipment (MHE).

10.3.1.1. Inflight Diversion. When advised that a destination airfield is under CBRN attack or has been contaminated, the aircrew will divert to an uncontaminated airfield, if at all possible. Authority to land at a contaminated airfield will be specified in the controlling OPORD.

10.3.1.2. Survival Launch. If caught on the ground during attack warning, every reasonable effort will be made to launch to avoid the attack. Upon proper clearances, aircrew may launch to survive if they have sufficient fuel and unrestricted, safe access to the runway. In practice, this option may only be practical for aircraft that have just landed or aircraft at or near the end of the runway. If launch is not possible, shut down engines and avoid running environmental control systems. Close aircraft doors, don Individual Protective Equipment (IPE), and seek personal protective cover on the base. If time does not permit using base facilities, remain in the sealed aircraft for a minimum of one-hour after the attack and/or follow host-base guidance.

10.3.1.3. Avoiding Cross Contamination from AGE, MHE, and Cargo. All formerly contaminated equipment and cargo must be marked to facilitate contamination avoidance and the use of protective measures. Additionally, the air shipment of formerly contaminated cargo requires special precautions and must be specifically authorized by the senior transportation commander.

10.3.2. Protection. When exposure to chemical and/or biological agents cannot be avoided, protection provides the force with the ability to survive and operate in a CBRN environment. Protection is afforded by individual protective equipment, collective protection, and hardening of facilities.

10.3.2.1. Individual Protective Equipment. The current in-flight protective gear for aircrew members is the Aircrew Chemical Defense Ensemble (ACDE). The ACDE includes the newer Aircrew Eye-Respiratory Protection System (AERPS) above the shoulders and the CWU-66/P or CWU-77/P Integrated Aircrew Chemical Coverall (IACC). The Ground Crew Ensemble (GCE) consists of the protective mask, C2 series canister (or filter element for MCU-2A/P protective mask), and over garment, boots, and gloves. The ACDE and GCE provide protection against chemical and biological agents. They do not provide blast or radiation protection from an RDD or nuclear detonation. The ACDE requires care during donning using "buddy dressing" procedures and Aircrew Life Support (ALS) expertise during processing through the Aircrew Contamination Control Area (ACCA). (Note: AECMs will utilize the MCU-2A series mask).

10.3.2.1.1. ACDE/GCE Issue. Aircrews will be issued sized ACDE and GCE at home station. Aircrews will ensure their ACDE and GCE are available at all times while in a CBRN threat area. Aircrew members will confirm the mobility bag contents and correct sizes.

10.3.2.1.2. ACDE Wear During Ground Operations. Because aircraft contamination is unlikely to occur during flight, ground operations can represent the highest threat to

aircrew safety. Protection from enemy attacks and exposure to liquid chemical agents is paramount. Aircrew should limit activities to essential duties only, and separate ground duties from air duties.

10.3.2.2. Collective Protection. Collective protection provides a temperature-controlled, contamination-free environment to allow personnel relief from continuous wear of IPE such as the ACDE. The basic concept for most facility collective protective solutions is to employ overpressure, filtration, and controlled entry/exit. The intent is to provide rest and relief accommodations, as well as provide medical treatment in contamination free zone. All pressurization systems should be shut down and doors sealed if the crew finds itself in need of immediate protection. Crewmembers should avail themselves of facilities, if provided, on the airfield.

10.3.2.3. Hardening. Permanent and expedient hardening measures are used to strengthen buildings and utility systems or provide barriers to resist blast effects. To reduce the potential of vapor exposure, personnel should consider the use of facilities above the first floor.

10.3.3. Contamination Control. In the post-attack environment, contamination control measures limit the spread of chemical, biological, and radiological contamination through disease prevention measures, decontamination, and use of Exchange Zone (EZ) operations. Effective contamination control helps sustain air mobility operations by minimizing performance degradation, casualties, or loss of material.

10.3.3.1. Disease Prevention. Up-to-date immunizations, standard personal hygiene practices, and the use of chemoprophylaxis are effective biological warfare defensive measures.

10.3.3.2. Decontamination.

10.3.3.2.1. Inflight Decontamination. Air washing is a useful inflight decontamination technique for removing most of the liquid agent from aircraft metal surfaces. However, vapor hazards may remain in areas where the airflow characteristics prevent complete off-gassing (i.e., wheel wells, flap wells, rivet and screw heads, joints, etc.). Flights of at least 2 to 4 hours are recommended, and lower altitudes are more effective than higher altitudes. Fly with the aircraft configured (gear, flaps, and slats extended) as long as possible to maximize the airflow in and around as many places as possible. Be advised that exterior contamination may seep into the aircraft interior creating a vapor hazard for aircrews. Use of ACDE is recommended.

10.3.3.2.2. Limits of Decontamination. Complete decontamination of aircraft and equipment may be difficult, if not impossible, to achieve. Formerly contaminated assets will be restricted to DOD-controlled airfields and not released from US government control.

10.3.3.3. Exchange Zone (EZ) Operations**.** The AMC Concept for Air Mobility Operations in a Chemical and Biological Environment (CB CONOPS) describes a method for continuing the vital flow of personnel into a contaminated airfield while limiting the number of air mobility aircraft and personnel exposed to the contaminated environment. The purpose of the EZ is to minimize the spread of contamination within

the air mobility fleet, preserving as many aircraft as possible for unrestricted international flight. The EZ is an area (located at uncontaminated airfield) set aside to facilitate the exchange of uncontaminated (clean) cargo/passengers to a contaminated (dirty) airframe, or visa versa, without cross-contamination. Additional information on the EZ is available through HQ AMC/A3X.

10.4. Flight Operations.

10.4.1. Mission Planning. Aircrews must be mentally prepared to face the dangers of CBRN weapons. Flight/mission planning must be thorough. Aircraft commanders should emphasize ACDE wear, crew coordination, CBRN hazards and countermeasures, inflight diversion, plans for onload/offload in the event of a ground attack, and plans for the return leg in the event of aircraft contamination. Alternative scenario plans should also be considered in the event MOPP conditions change.

10.4.2. Establishing the Threat Level. Aircrews should monitor command and control channels to ensure they receive the latest information concerning the destination's alert condition. Diversion of aircraft to alternate "clean" locations may be required, unless operational necessity otherwise dictates. The TACC or theater C2 agency (normally through the controlling OPORD) will direct aircrew pre-exposure activities such as medical pre-treatment for chemical/biological exposure.

10.4.3. Fuel Requirements. Extra fuel may be needed to compensate for altitude restrictions as the result of CB agent exposure. During purge periods, the aircraft will be unpressurized. Although the aircrew can use the aircraft oxygen systems, passengers wearing GCE cannot, thus restricting the aircraft cruise altitude and increasing fuel requirements accordingly.

10.4.4. Oxygen Requirements. Operating a contaminated aircraft will increase oxygen requirements. Aircrew wear of ACDE will require use of the aircraft oxygen system to counter actual/suspected contamination. Using the 100 percent oxygen setting offers the greatest protection in a contaminated environment. Appropriate oxygen reservoir levels must be planned to meet higher consumption rates. Use the aircraft Dash 1 charts to calculate the required reservoir levels.

10.4.5. Donning Equipment. Aircrew will don ACDE based on the alarm condition (See Airman’s Manual (AFMAN 10-100). Use the "buddy dressing" procedures, and refer to AMCVA 11-303, *AERP Donning Checklist* and AMCVA 11-304, *ACDE Donning Checklist*, to ensure proper wear. When wearing the ACDE, Atropine and 2 PAM Chloride auto injectors will be kept in the upper left ACDE pocket. If the integrated survival vest/body armor is worn, the Atropine and 2 PAM Chloride auto injectors may be kept in the lower right flight suit pocket. This standardized location will enable personnel to locate the medication should an individual be overcome by CWA poisoning. M-9 paper on the flight suit will facilitate detection of liquid chemical agents and ACCA processing. M-9 paper should be placed on the flight suit prior to entering the CBRN threat area or when an alarm “yellow” or higher has been declared. When inbound to a CBRN threat area, prior to descent, the aircraft commander will ensure crew and passengers don appropriate protective equipment IAW arrival destination's MOPP level and brief aircrew operations in the CBRN threat area. As a minimum, this briefing will include: flight deck isolation, oxygen requirements, air conditioning system requirements, IPE requirements, ground operations, and MOPP levels. Aircrew members must determine if the wear of the integrated survival

vest/body armor and LPUs will restrict dexterity and mobility to the point that it becomes a safety issue. If the aircrew deems the equipment to create a safety of flight concern, then the items may be pre-positioned (instead of worn) on the aircraft to be readily available to the aircrew.

10.4.6. Communicating Down-line Support. Pass aircraft and cargo contamination information through command and control channels when inbound. This information will be used to determine if a diversion flight is required or decontamination teams are needed. Report the physical condition of any crew/passengers who are showing agent symptoms and whether they are wearing chemical defense ensembles.

10.5. Ground Operations.

10.5.1. Crew Rest Procedures. Operational necessity may require the aircrew to rest/fly in a contaminated environment. If the mission is not being staged by another aircrew or pre-flight crews are not available, the aircrew may pre-flight, load, and secure the aircraft prior to entering crew rest. The departing aircrew will perform necessary crew preparations and pre-flight briefings. Then, they will report to the ACCA for processing and ACDE donning with assistance from ALS personnel. If possible, aircrew transport should be provided in a covered vehicle. Aircrews should avoid pre-flighting the aircraft prior to departure to prevent contamination spread to them and/or the aircraft. As aircrews proceed to fly, they will require assistance from ground support personnel in removing their aircrew protective overcape and overboots prior to entering the aircraft.

10.5.2. Onload and Offload Considerations. Extreme care must be exercised to prevent contamination spread to the aircraft interior during ground operations, particularly to the flight deck area. Reduce the number of personnel entering the aircraft. Contaminated engine covers, safety pins and chocks will not be placed in the aircraft unless sealed in clean plastic bags. Aircrew members entering the aircraft will remove plastic overboots and overcape portions of the aircrew ensemble and ensure flight/mobility bags are free of contaminants and placed in clean plastic bags. Prior to entering the aircraft all personnel should implement boot wash/decontamination procedures. Aircrew exiting aircraft into a contaminated environment will don plastic overboots and overcape prior to leaving the aircraft.

10.5.3. Communications. Conducting on/offloading operations, while wearing the complete ACDE, complicates communications capability. Use the mini-amplifier/speaker or the aircraft public address system and augment with flashlight and hand signals, as required.

10.5.4. Airlift of Retrograde Cargo. Only CRITICAL retrograde cargo will be moved from a contaminated to an uncontaminated airbase. Critical requirements are pre-designated in theater war plans. Onload cargo will be protected prior to and while being transported to the aircraft. If contaminated, protective cover(s) will be removed/replaced just prior to placing the cargo on the aircraft. It is the user's responsibility to decontaminate cargo for air shipment. The airlift of contaminated or formerly contaminated cargo requires the approval of the senior transportation commander.

10.5.5. Passenger/Patients. A path should be decontaminated between the aircraft and the ground transportation vehicle to reduce interior contamination when loading/unloading passengers/patients. Normally, externally contaminated patients and those infected with contagious biological agents will not be transported onboard AMC or AMC-procured

aircraft. The AMC/CC is the waiver authority to this policy. (NOTE: An altitude below 10,000 feet is recommended due to AECM use of the ground chemical mask.)

10.5.6. Physiological Factors. Aircraft commanders must be very sensitive to the problems resulting from physical exertion while wearing ACDE. The aircraft commander should consider factors such as ground time, temperature and remaining mission requirements when determining on/offload capabilities. Individuals involved should be closely monitored for adverse physiological effects.

10.5.7. Work Degradation Factors. Work timetables need to be adjusted to minimize thermal stress caused by wearing the ACDE. Aircrews must weigh all factors when performing in-flight and ground duties. The following are degradation factors for wearing full GCE, and may also be used to represent the Task Time Multipliers for the ACDE. To estimate how much time it takes to perform a task or operation, (1) take the Task Time Multiplier (Figure 10.1) for the appropriate Work Rate and ambient air temperature and (2) multiply it by the time it normally takes to perform the task. For example, given a heavy work rate and an air temperature of 70F, the crewmember should expect a normal one hour task to take 2.1 hours while wearing ACDE. A more extensive discussion of this subject is found in AFMAN 32-4005, *Personnel Protection and Attack Actions*.

Figure 10.1. Task Time Multipliers.

Work Rate	**Temperature**		
	20-49 F	**50-84 F**	**85-100 F**
	-6 to 9 C	**10 to 28 C**	**29 to 38 C**
Light	1.2	1.4	1.5
Moderate	1.3	1.4	3.0
Heavy	1.7	2.1	5.0

10.5.8. Outbound with Actual/Suspected Chemical Contamination. Once airborne with actual/suspected vapor contamination, the aircraft must be purged for 2 hours using Smoke and Fume Elimination procedures. To ensure no liquid contamination exists, a close inspection of aircrew, passenger ensembles, and cargo will be conducted using M-8 and M-9 detection paper. Detection paper only detects certain liquid agents and will not detect vapor hazards. Above the shoulder ACDE should only be removed if there is absolutely no vapor hazard. Be advised that residual contamination (below the detectable levels of currently fielded detection equipment) may be harmful in an enclosed space. The aircrew must take every precaution to prevent spreading of liquid contaminants, especially on the flight deck area. The best course is to identify actual/suspected contamination, avoid those areas for the remainder of the flight, and keep the cargo compartments cool. If an aircrew member or passenger has been in contact with liquid contaminants, all personnel aboard the aircraft will stay in full ACDE/GCE until processed through their respective contamination control area (CCA). Upon arrival, the contaminated aircraft will be parked in an isolated area and cordoned to protect unsuspecting ground personnel.

10.5.9. Documenting Aircraft Contamination. When it is suspected or known that an aerospace vehicle or piece of equipment has been contaminated with a radiological, biological or chemical contaminant, a Red X will be entered and an annotation will be made in historical records for the lifecycle of the equipment.

10.5.10. 10-Foot Rule. The 10-foot rule was developed in order to provide guidance for protecting personnel using or handling contaminated resources (such as pallets) or working in locations with materials that might retain a residual chemical. The 10-foot rule embodies a safety factor that goes beyond current OSD guidance (which allows removal of IPE whenever detectors no longer detect a chemical agent vapor hazard). There are two phases associated with the 10-foot rule.

10.5.10.1. Initial Phase. During the initial phase, personnel will remain in MOPP 4 whenever they stay within 10 feet of the contaminated equipment for more than a few seconds. This MOPP level provides personnel the maximum protection from the chemical agent as it transitions from a contact and vapor hazard to a vapor hazard only.

10.5.10.2. Follow-on Phase. In the follow-on phase, personnel will use gloves of a sort (i.e. leather, rubber, cloth, etc.) when operating on or handling the contaminated equipment. Although a contact hazard is unlikely, relatively small amounts of the agent may still be present. The use of gloves will ensure that unnecessary bare skin contact with agent residue is avoided.

10.5.10.3. Figure 10.2 shows times associated with initial and follow-on phases of the 10-foot rule. To simplify response processes, commanders may choose to use the worst case scenario as the foundation for all 10-foot rule actions, i.e., 24 hours for the initial phase and all periods of time greater than 24 hours for the follow-on phase.

Figure 10.2. Ten-Foot Rule Time Standards (Source: AFMAN 10-2602).

"10-Foot Rule" Time Standards*		
Agent	**Initial Phase**	**Follow-on Phase**
HD	0-12 hrs	Greater than 12 hrs
GB	0-12 hrs	Greater than 12 hrs
GD, GF, GA	0-18 hrs	Greater than 18 hrs
VX, R33	0-24 hrs	Greater than 24 hrs
* Rule is based on expected contamination on an airbase following a chemical attack. Adjust times if agent concentration is higher than expected.		

Chapter 11

NAVIGATION PROCEDURES

11.1. Mission Planning.

11.1.1. The PIC or designated representative shall verify that proposed routes and flight altitudes/levels provide proper terrain clearance and meet FLIP, FCG and AOR requirements.

11.1.2. A pilot/navigator shall crosscheck the CFP route of flight against the route of flight entered on the DD Form 175, *Military Flight Plan*, DD Form 1801 or ICAO flight plan.

11.1.3. If a CFP is out of date or not available and routing or meteorological information is desired, the PIC should obtain direct assistance from the CDS or IFM. CFPs and CFP tracks to assist in manual flight planning are available with a current account through the AMC Aircrew Portal.

11.1.4. Flight Plan. Cross-check the CFP planned route against the route of flight entered on the DD Form 175 or DD Form 1801 and the approved diplomatic clearance.

11.1.5. Navigator Station (if applicable). The navigator who prepares or accepts the flight plan will remain on duty at the navigator's station during departure and will brief the relieving navigator. The navigator ensures all required fuel computations are accurate and complete, and, in addition, will ensure ramp fuel load is compatible with mission requirements.

11.2. Flight Charts. Complete oceanic plotting IAW para 6.33.3. of this AFI.

11.2.1. **(Added-89AW)** For VC-25 operations, utilize the AMC Form 25 (89 AW/PAG Overprint) while operating in CLASS II airspace. This form encompasses fuel planning (used for preflight fuel calculations), enroute fuel monitoring, flight plan calculations, flight progress (position monitoring), pertinent event recording (wx deviation, navigator change, etc), altimetry check if required, and heading system, deviation check. When operating in CLASS II airspace, the navigator must record and save sufficient data so the mission can be easily reconstructed. This will be accomplished by using the Form 25 in conjunction with either a manual plotting chart or an electronic plotting chart. If using an electronic plotting chart, it will include flight following data from navigation software (i.e. GPS trail points), the route of flight, and position monitoring data as input by the navigator. See for an example of the AMC Form 25 (89 AW/PAG Overprint)

11.2.1.1. **(Added-89AW)** After mission completion, the Form 25, computerized flight plan, 89 AW Form 87, mission itinerary, and plotting chart will be turned into the navigator section for archiving. If an electronic plotting chart was used for the mission, GPS tracking data, route of flight, and position monitoring data will be saved electronically to the mission computer or designated, external source for archiving. Manual or electronic plotting charts will reflect data as described in para 6.33, Flight Progress. Retain post mission data as described above in the navigator section for a minimum of 3 months.

11.3. Navigational Aid Capability. The following airspace categories are each defined in FLIP, and are considered special qualification airspace: MNPS, Reduced Vertical Separation Minimum (RVSM), Basic Area Navigation (BRNAV), and RNP.

11.3.1. North Atlantic MNPS airspace system procedures are as follows:

11.3.1.1. MNPS standards are mandatory.

11.3.1.2. Aircraft that lose one INS/IRS prior to airspace entry will comply with North Atlantic MNPS Airspace Operations Manual (as applicable) and appropriate FLIP series. Although the North Atlantic MNPS Airspace Operations Manual is not regulatory for airspace other than North Atlantic MNPS operations, it provides solid general guidance for operations in other oceanic regions.

11.3.1.3. Aircraft that lose all INS/IRS capability prior to designated airspace entry may continue if the crew re-files outside MNPS airspace and NAVAIDs (or navigator) are available to maintain proper navigation tolerances.

11.3.2. 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. Refer to FLIP AP/2 and the following for RVSM requirements:

11.3.2.1. Both primary altimeters, at least one autopilot, the altitude advisory system, and the transponder, must be fully operational. The PIC will request a new clearance to avoid this airspace should any of this equipment fail.

11.3.2.2. Engage the autopilot during level cruise, except when circumstances such as the need to re-trim the aircraft or turbulence require disengagement.

11.3.2.3. Crosscheck the altimeters before or immediately upon coast out. Record readings of both altimeters.

11.3.2.4. Continuously crosscheck the primary altimeters to ensure they agree ± 200 feet.

11.3.2.5. Limit climb and descent rates to 1,000 feet per minute when operating near other aircraft to reduce potential TCAS advisories.

11.3.2.6. Immediately notify ATC if any of the required equipment fails after entry into RVSM airspace and coordinate a plan of action.

11.3.2.7. Document in the aircraft forms malfunctions or failures of RVSM required equipment.

11.3.3. 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. BRNAV navigation accuracy criteria is RNP-5. Aircraft with integrated GPS have no BRNAV restrictions. Without GPS, aircraft must auto update every two hours (as required) to maintain actual centerline within +/- 5 NM of ATC cleared route.

11.3.3.1. Minimum equipment to operate in BRNAV airspace is one INS/IRS capable of updates or an FAA approved GPS with RAIM or equivalent system. Flights entering BRNAV airspace after long overwater flight must be especially aware of BRNAV tolerances and update accordingly.

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

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

11.3.4. 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. VIP Aircraft are approved for RNP, but limited to operational time restrictions based on navigation equipment. These limitations will be annotated in local supplement and updated by unit stan/eval when appropriate.

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

11.3.4.1.1. Flight Planning. Verify aircraft is approved for RNP operation, assess mission impact and ensure appropriate code is annotated on the flight plan IAW FLIP GP.

11.3.4.1.2. 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.

11.3.4.1.3. 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.

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

11.3.5. CPDLC Operations. Refer to applicable FLIP, FAA and MDS guidance for CPDLC operations. Specific operations and procedures must be approved by MAJCOM/A3 with mission execution authority. Verify equipment and ensure appropriate code is annotated on the flight plan IAW FLIP GP.

11.4. Navigator Procedures. Use local supplement to describe duties (if applicable).

11.4.1. **(Added-89AW)** Mission planning includes airfield suitability, fuel and performance calculations, route planning, weather assessment, and diplomatic clearance compliance. See for an example of the 89 AW Fo

11.4.2. **(Added-89AW)** Enroute navigation includes management of the Flight Management System and Aircraft Communication and Reporting System, weather radar operation, general position monitoring, and documentation. Prior to entering CLASS II airspace, the navigator will use all available navigation aids (GPS, radio, radar, inertial, and FMS) to establish and record a coast out position (fix). The navigator will use this

information to verify FMC/FMS position accuracy for CLASS II operations. After departing CLASS II airspace, the navigator will conduct a gross nav check by comparing all navigation position data (INS, GPS, and FMC/FMS positions).

11.4.2.1. **(Added-89AW)** Radios and Clearances: The navigator will monitor ATC radios. The navigator records all clearances and monitors the readback.

11.4.2.2. **(Added-89AW)** Departure and Arrivals procedures: The navigator will use all available navigation and avoidance systems (radar, FMS, terrain charts, and TCAS) to ensure the aircraft remains clear of obstructions and other aircraft.

11.4.2.3. **(Added-89AW)** Oceanic Plotting Chart Procedures: As described below, overall guidance is as per paragraph 6.33. (Flight Progress) with additional references to Area Planning (AP), Oceanic Plotting Chart Procedures, Flight Planning Section.

11.4.2.3.1. **(Added-89AW)** Perform gross navigation check, coast in and coast out procedures, as per guidance in paragraph 11.4.2. of this supplement.

11.4.2.3.2. **(Added-89AW)** Plot ARTCC-CLEARED OCEANIC ROUTE on a manual or electronic chart from entry point to exit point.

11.4.2.3.3. **(Added-89AW)** Approximately ten minutes after crossing each oceanic waypoint (ARTCC-CLEARED OCEANIC ROUTE), plot present position (FMS position) on manual or electronic plotting chart. Record TH, TAS, W/V, time, and position data on the AMC Form 25 (89 AW/PAG Overprint) Verify position and next waypoint with the flight plan and FMC/FMS. All oceanic waypoints in CLASS II airspace will be verified and inspected by the navigator upon passage to ensure compliance with course and ETA tolerance; however, recorded position data as described above should not distract from mission effectiveness, (i.e. block timing, turbulence avoidance, ATC clearances, weather avoidance, etc..). Recorded position checks should at no time exceed pacing tolerances as per paragraph 11.4.2.3.4.

11.4.2.3.4. **(Added-89AW)** In addition to guidance described in paragraphs 6.33. and 11.4.2.3.3., the navigator will ensure a position is taken if flight time between CLASS II waypoints exceeds 1+00, not longer than 1+20.

11.4.3. **(Added-89AW)** Fuel management includes preflight, enroute calculations, and assessment. Preflight calculations and fuel assessments are accomplished by using the 89 AW Form 87, computerized flight plan, or manual fuel calculations. Anytime the 89 AW Form 87 calculated landing fuel is less than 50,000 pounds, the navigator will analyze day of flight conditions (i.e. re-route for wx or timing concerns) and the impact, if any, to planned landing fuel as directed by PAG/CC. This should be accomplished with both the adjusted Form 87 and computer flight plan or by using the pre-flight section of the AMC Form 25. The Flight Management System (FMS) should be used during pre-flight as a final step to validate approved landing fuel.

11.4.3.1. **(Added-89AW)** Enroute Fuel Calculations and Assessment: The navigator will utilize the enroute fuel management sections of the AMC Form 25 (89 AW/PAG Overprint) whenever Form 87 planned landing fuel is less than 50,000 pounds. Every hour, not to exceed 1+20, coincidental with ARTCC-CLEARED OCEANIC waypoint passage, the navigator will enter actual fuel remaining from the engineer's panel into the

FMS and then complete the fuel monitoring section of the Form 25. Recorded fuel entries on the Form 25 will be at the discretion of the navigator and should not exceed timing tolerances.

11.4.3.2. **(Added-89AW)** When conducting enroute fuel calculations and assessment, if actual fuel remaining is less than what was approved by PAG/CC , the navigator will review fuel calculations with the flight engineer, and if necessary, recommend adjustments in relation to speed, level, or a combination of both to ensure an approved, suitable landing fuel is obtained.

11.4.4. **(Added-89AW)** The navigator is responsible for the coordination between the PAG and White House Airlift Operation for mission details.

11.4. (89AW) PAG Navigator Procedures. The VC-25 navigator is responsible for mission planning, enroute navigation, fuel management, and coordination with White House Airlift Operations.

11.5. High Latitudes/Grid Navigation/Polar Routes. Operations when flying north of 70 degrees latitude require provisions for conversion of heading systems from magnetic to true, or operations with Grid procedures. Provisions for INS/IRS failure must be considered. Refer to the FCM for specific procedures.

11.5.1. Use of Polar Routes is authorized. Ensure aircraft MEL, performance capability and navigation capability exists for the entire route. Utilize all IFM/CDS functions and review polar route navigation procedures in FLIP (Arctic Control Area, NavCanada, Alaska Supplements, etc.). Follow MDS specific guidance for alternate planning and EROPS, if applicable. Ensure alternates qualify and are suitable for use. Comply with all cold weather/polar operations manual restrictions (fuel temperature, cold weather operations, etc.).

11.5.2. Navigators. Backup grid procedures should be used when flying north of 70 degrees north latitude (except Alaska) and south of 60 degrees south latitude or where the convergence of meridians or magnetic variation changes preclude using true and magnetic direction references.

11.5.2.1. INS/IRS Operation. Set compasses to computed grid heading in order to have a current grid heading available should INS/IRS fail.

11.5.2.2. If INS/IRS fail, aircraft will be directed by grid heading until exiting the grid area.

11.5.3. En route requirements with INS/IRS inoperative:

11.5.3.1. Navigators. Comply with FLIP (Arctic Control Area or other applicable procedures). Check aircraft's grid heading each 30 minutes during the first hour after grid entry. Thereafter, heading checks are required every hour. When entering grid operation, apply convergence to the true heading. Establish the aircraft on computed true heading references. When exiting grid, apply variation to obtain magnetic headings to the flight plan to verify the accuracy of the courses measured and conversion data used. This will ensure the validity of initial entry headings and provide precise target headings for exit.

11.5.3.2. Determine the precession information for gyros after each heading check. Do not reset the gyros unnecessarily. When precession is one degree or less do not reset the gyros since the error may be in the observation.

11.5.3.3. If a grid heading can't be determined at the regular time interval by celestial, use the previous precession information to determine heading changes.

11.6. EROPS Procedures (C-32 and C-40). An EROPS area of operation shall be considered to be any geographical area where, at any point on the planned route, the aircraft will be more than 60 minutes from an adequate airport at the single-engine drift-down speed and altitude in still air. An EROPS area of operation may also be considered to apply to over-land areas having suitable alternates within 60 minutes (at the single-engine drift-down speed and altitude in still air), but are considered not usable for political, military, security or performance considerations.

11.6.1. Mission Planning. The EROPS area of operation shall be considered and factored into route planning considerations. Use of appropriate extended range flight planning tools is authorized. Adequate airfields shall be identified, reviewed for suitability, and contained in FMC/FMS database.

11.6.1.1. Suitability Planning. Verify weather, airfield, aircraft systems, instrument approach, passenger handling, maintenance support, fire and rescue support, operations hours and NOTAMs determine suitability.

11.6.1.2. Units will publish specific EROPS guidance in local supplement to enhance operational safety. As a minimum, the PIC must have a qualified alternate planned for CAT 1 fuel, and a contingency plan for weather, suitability and MEL/MMEL [e.g. loss of Auxiliary Power Unit, fire detection, generator, etc]. The PIC has the ultimate responsibility for safety.

11.6.1.2.1. C-32 and C-40. These aircraft are considered 180 minute EROPS compliant. To maintain that standard, the unit OG/CC (or equivalent) will evaluate the MEL situation with unit stan/eval and direct as to how the route should be planned and how the aircraft should be operated. OG/CC (or equivalent) will approve any EROPS waiver, or approve a new route conforming to reduced EROPS limits (120, 90, 60 minutes). Unit OGV will pass waiver approval to CP, AMD, CDS or IFM to the crew for go/no-go.

11.7. CDS/IFM. All VIP Aircraft are authorized to utilize MAJCOM approved CDS/IFM (this includes AFMC contracted services as part of aircraft procurement/sustainment if coordinated with the lead command). PIC is overall responsible for monitoring accuracy and completeness of flight planning.

11.7.1. Certified Dispatchers are authorized to mission plan, obtain/transmit weather information, obtain/transmit diplomatic clearance messages, compute flight plans, electronically file and flight follow VIP Aircraft. PIC must verify dispatch release via signature, verbal communication or datalink. At locations with MAF C2, PIC should confirm actions with CP or AMD. Secure Launch and Close Hold missions may require modification of planning factors. OG/CC or equivalent shall inform PIC if mission is not to be dispatched.

11.7.1.1. **(Added-89AW)** Prior to each mission leg, the PIC will review all flight plan information and verify the 1801 information filed by the navigator or the commercial dispatch service is complete and accurate, to include route of flight and diplomatic clearance information.

11.7.2. Messages. CDS Dispatchers are not authorized to send official AMHS messages.

11.7.2.1. Close Hold. Units may further restrict CDS activities to accommodate sensitive missions. In such cases, the unit will perform flight planning and dispatch services.

11.7.3. Dip Clearances. Dispatchers may obtain diplomatic clearances. PIC's are responsible for overall border clearance, approval authority for flight plans and country clearance. Verify flight plan annotates appropriate diplomatic clearances for border clearance and safe passage.

11.7.4. Datalink. Use of HF and VHF datalink is approved for enroute dispatch and C2 capability. Dispatchers shall notify PIC of updated alternates and weather prior to obtaining clearances (departure, oceanic, approach). In any case, PICs, Navigators or FEs should update enroute alternate weather prior to oceanic entry point via any means (HF or datalink). MDS specific EROPS may dictate further oceanic restrictions. OG/CCs (or equivalent) are waiver authority for dispatch relief for EROPS. In these cases, dispatchers should contact crew by any/all means for all planning problems or changes. If not able to contact the crew, CDS/IFM must notify ARTCC, unit C2, CP or AMD to pass information to the aircraft.

11.7.4.1. CPDLC. MAJCOM authorized users may use flight following and oceanic clearance release procedures via ATC datalink. Ensure appropriate ATS log-on procedures are followed (Pacific Operations Manual, CNS/ATM Asia, etc). Initiate HF communication (typically 15-45 minutes prior to entry) and establish log on communication. Ensure log on is accepted and advise ATC via HF voice if communication is not established. Minimize the use of free text messages. Maintain log of ATC datalink communications and retain with post mission paperwork at unit stan/eval IAW unit procedures.

Chapter 12

FLIGHT ENGINEER (FE) PROCEDURES

12.1. General. This chapter outlines additional procedures not in the FCM for FEs.

12.2. Responsibilities. The first FE is responsible for the condition of the aircraft, keeps the PIC informed at all times of changes in aircraft status. FEs will supervise or perform aircraft servicing and maintenance at en route stations as required to maintain aircraft in a mission-capable condition. VC-25 FEs supervise the crew chief on missions and lend assistance when required. At the end of each flight, the FE will police the flight deck if there is no CSO onboard.

12.3. Authority to Clear Red X Symbols in the AFTO 781A. IAW TO00-20-1, when authorized by the home station maintenance group commander and contracted logistics support (CLS) agreement, FEs are authorized to clear red X write-ups.

12.4. Refueling and Defueling.

12.4.1. Aircraft Refueling and Defueling. Qualified FEs are authorized to refuel or de-fuel their aircraft. Comply with the appropriate dash-2 aircraft TOs, FCMs/Ground Servicing Guides and TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*.

12.4.2. Concurrent Ground Operations. Simultaneous refueling or de-fueling while maintenance operations are being performed is authorized according to TO 00-25-172. ***NOTE:*** During concurrent servicing for C-9 operations, three way interphone contact will be established between a pilot or other qualified crewmember in the cockpit, fuel servicing crewmember located at the Single Point Refueling (SPR) panel [who may act as Concurrent Servicing Supervisor (CSS)], and safety observer located forward of the nose area (e.g. Pilot, FA, CSO). If interphone communication cannot be established/maintained, an alternate means of communication must be found before refueling may commence/continue.

12.4.2.1. Aircrew members are authorized to enplane or deplane during fuel servicing to perform mission essential duties.

12.4.2.2. Aircrew personnel are authorized to conduct "power off" portions of inspections during servicing when essential to meet operational turn-around requirements (Reference TO 00-25-172, paragraph 3.7.).

12.4.2.3. Passengers may remain on board the aircraft during refueling, provided they are briefed on the hazards of the operation and given the option to deplane prior to refueling. Stairs and exit(s) will be positioned (if required) with doors open. Passengers will not enplane or deplane during fueling operations unless absolutely necessary and escorted by an aircrew member. A standby fire truck is required if servicing with JP-4 or Jet B fuels (Reference TO 00-25-172, paragraph 6.10c.).

12.5. Concurrent Servicing Operations. Concurrent servicing is authorized according to TO 00-25-172. All FEs are qualified to perform CSS duties. The FE is the final authority for coordinating all en route servicing operations.

12.6. Certifications. Flight Engineers are authorized certification in aircraft taxi and engine run procedures.

12.6.1. Taxi Certification. FEs may taxi VIP Aircraft with unit OG/CC approval. FEs will receive instruction from a qualified instructor pilot or examiner pilot IAW the FCM, AFI 11-218, MAJCOM Supplement, and local directives at the discretion of the unit commander. A qualified EP will certify the FE on an AF Form 8 as a ground phase item, or it may be in conjunction with an annual FE evaluation annotated on the AF Form 8.

12.6.1. **(89AW)** The 89 OG/CC does not authorize 89 OG FEs to taxi aircraft. PAG/CC determines PAG personnel certification and limitations for aircraft movement of PAG aircraft.

12.6.1.1. Limitations. FEs are only authorized to taxi the aircraft with another taxi qualified crew member in the other seat. FEs are only authorized to taxi across runways at home station with a qualified pilot in the other seat (not applicable to PAG operations).

12.6.1.1.1. The conditions for taxi must be no worse than wet RCR and at least 1200 RVR (1/4 mile visibility).

12.6.2. Engine Run Certification. FEs are authorized instruction from a qualified instructor/examiner pilot or certified FE on engine run procedures IAW the FCM, AFI 11-218, 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. Not applicable to taxi qualified FEs.

12.7. Pushback Operations. The FE (or FCC as applicable) will normally be on headset for all pushback operations away from home station. All pushback/towing operations performed enroute by C-20/C-37 aircrews will be IAW AFI 11-218, unit OG/OGV approved checklist inserts and the FCM.

12.8. Local TOLD Card. The FE will complete the entire TOLD card, including the landing portion, prior to departure. FEs will confirm accuracy of (C-20/C-37) FMS computed performance data and complete manual TOLD card when required by the FCM or directed by the PIC.

12.9. Multiple Full-Stop Landings. For all practice, full-stop landings, the FE will complete a new TOLD card using actual gross weight, field, and weather conditions. FEs will confirm accuracy of (C-20/C-37) FMS computed performance data and complete manual TOLD card when required by the FCM or directed by the PIC.

12.10. Monitoring Primary Radios. The FE will monitor the primary radio for flight clearances, altitudes, heading changes, and radio frequencies. The FE is not required to copy departure clearances.

12.10.1. For local sorties without a CSO onboard, the FE will monitor the local C2 frequency and report take-off times, block times and aircraft status as applicable.

12.10.2. For local sorties on the alert aircraft without a CSO onboard, the FE will monitor the local C2 frequency and report when transiting from each location as applicable.

12.11. Use of Second Flight Engineers. For VC-25 operations, a qualified second FE may perform exterior pre-flight duties without supervision. When supervised by an instructor or flight examiner FE, a second FE may occupy the FE position during takeoff and landing. The

second FE does not need direct supervision by a flight examiner or instructor during climb, cruise, and descent at altitudes above 10,000 feet.

12.11.1. An FF may fly C-20/C-37 local training sorties provided they are current and qualified (valid AF Form 8), and they have received a local area orientation briefing from an instructor or evaluator FE. An FF may preflight a back-up aircraft provided a MF will fly the mission. An FF will not fly as a member of a basic crew except on local training missions.

12.12. (Added-89AW) C-20/C-37 Engine Start Procedures. A crewmember should stand fire guard/safety observer for all off-station engine starts.

Chapter 13

FLIGHT ATTENDENT (FA) PROCEDURES

13.1. General. This chapter outlines procedures for FA not in the FCM or elsewhere in this volume.

13.2. Responsibilities. The FA is the direct contact between the USAF and the passenger. The FA primary duties are to instruct passengers in the use of emergency equipment, ensure cabin discipline and conduct emergency egress when necessary. Additionally, FAs act as the PIC's cabin representative, provide cabin service and maintain cabin cleanliness throughout the mission. On multi-FA crews, the first FA acts as FA supervisor and delegates specific duties and responsibilities to each FA. At home station, one or two FAs may be required to assist with post mission aircraft cleanup. Upon completion of missions, maintenance personnel should allow FAs one hour (C-9, C-20, C-37, C-40) or two hours (C-32) of uninterrupted time to clean aircraft.

13.3. FA Standards.

13.3. (89AW)1. When making contact in person, all 89 AW FAs will wear the FA uniform or blues. Comply with AFI 36-2903 and supplements for either uniform.

13.3.1. When making contact with party, FAs must wear appropriate uniform as prescribed in local supplement. Ensure accuracy of requirements and security of funds.

13.3.2. Any FA approaching VIP Aircraft on the DV spot/row should be in the appropriate uniform. This does not apply to cleaning crews, who should not approach the aircraft until all passengers and their baggage have departed the area.

13.3.3. Any problems encountered with passengers during the mission (i.e. mistreating the aircraft, disorderly behavior, etc.) will be forwarded to the PIC for appropriate action.

13.4. Pre-mission Duties.

13.4.1. Contact the PIC or navigator for draft itinerary times and any information already received concerning cabin service requirements. Provide en route mission ice requirements at this time.

13.4.2. Call or visit the mission contact officer to determine cabin service (food, beverage, catering etc.) requirements. Coordinate with CSO any estimated costs for communication services. It is vital that the contact understands all the associated cost for in-flight service may include communication services. See local supplement for billing procedures. For cabin food services, get the name of the onboard contact and obtain funds, if available (if not received from the mission contact, obtain funds from the In-flight Funds Custodian). Complete all portions of AF Form 4084, *Mission Planning Worksheet*. Procure needed supplies (food, beverages, special requirements, etc.) and retain all receipts.

13.4.3. The first FA on C-9, C-32, C-40 and VC-25 aircraft will conduct a FA briefing to assign FA positions and duties. For unplanned emergencies, all FAs will act in the position they are assigned. In planned emergencies, the FA with the highest qualification will assume command of the emergency and all FAs. It is critical that coordination between PIC and first FA occur during pre-flight briefings to assure that clear directions for action be defined for

aircrew duties for planned and unplanned emergencies. This includes, but is not limited to: egress, cabin smoke, fire, and emergency passenger handling duties.

13.5. Preflight Duties.

13.5.1. Perform applicable preflight or en route checklists. On multi-FA aircraft, this preflight may be accomplished by one FA or divided into zones, as necessary. Check that applicable passenger information cards are properly distributed.

13.5.2. Upload food and fleet items and stow as necessary. If aircraft availability and maintenance scheduling allows, consideration should be given to loading non-perishable items the day prior to departure.

13.5.3. Prepare meals as required. Focus of preflight duties will be directed toward passenger service to ensure completion prior to station time and not inhibited by crew meal service.

13.5.4. Coordinate receipt of passenger manifests.

13.5.5. Coordinate passenger baggage loading and security. If loading space-available passengers at a non-US military facility, perform the following anti-hijacking inspections as directed by the PIC:

13.5.5.1. Check for proper identification and document passengers on DD Form 2131, *Passenger Manifest*.

13.5.5.2. Inspect baggage in an area well away from the aircraft.

13.5.5.3. Load baggage to prohibit in-flight passenger access (except for carry-on baggage).

13.5.5.4. Inspect carry-on baggage prior to boarding passengers.

13.5.6. Coordinate passenger loading. Accomplish passenger briefing, if required.

13.6. Passenger Handling.

13.6.1. Coordinate with the PIC before answering questions about the mission.

13.6.2. Do not unduly alarm passengers by relaying details of abnormal conditions not readily discernible by passengers.

13.6.3. Keep the PIC informed of all passenger problems, unusual requests, etc.

13.7. Border Clearance. Certain forms for border clearance are required by customs, immigration, public health and agriculture. The FA is the custodian for these and other required forms and will ensure adequate quantities are aboard the aircraft prior to takeoff. The first FA should be familiar with the FCG and AMC Border Clearance Guide requirements for applicable destinations and will distribute forms to the crew and passengers, as necessary, for completion prior to landing. Ascertain paperwork is forwarded to applicable personnel at en route and terminating stations.

13.8. En Route and Post Flight Duties.

13.8.1. FAs will provide cabin and meal service while maintaining the highest standards of safety and cabin discipline. During periods of in-flight turbulence (or when directed by the PIC) ensure all loose items are stowed and cabin service is suspended, if necessary.

13.8.2. Attend to flight crew needs when passenger service duties permit.

13.8.3. Complete applicable border clearance requirements and forms.

13.8.4. Assist with passenger deplaning and baggage offload or transfer. Ensure passengers do not leave required baggage unattended around aircraft or personal items left on the aircraft.

13.8.4.1. All passenger top-side baggage will be downloaded prior to cleaning aircraft.

13.8.5. FAs are responsible for aircraft cleanliness. They are also responsible for ensuring that all food items are properly stored and aircraft is ready before departing for over-night stops. All perishable items not used will be disposed of in appropriate trash containers and removed from the aircraft prior to leaving the aircraft. Follow host nation rules IAW FCG and border clearance guide. Unit policy should ensure the passenger cabin, galley(s) and lavatories are cleaned. Blankets and pillowcases should be changed (if needed) at en-route stops and upon return to home station.

13.8.6. Arrange or procure food and beverages required for subsequent mission legs. When purchasing wet/dry ice from vendors who will not accept an AF Form 15 or credit card, obtain funds from the PIC (or designated representative) and provide him/her with a receipt. The transportation officer will submit a SF 1164, *Claim for Reimbursement for Expenditures on Official Business*.

13.8.7. Under no circumstances will either perishable or non-perishable items purchased for the official party be consumed by crewmembers or ground support personnel, or taken from the airplane for personal use.

13.9. Forms.

13.9.1. AF Form 4084, *Mission Planning Worksheet*. Use this form to assist the FA in organizing passenger service requirements. The reverse of the form is a checklist to help inventory mission supplies. Record details received from the contact officer on the front of the form. Use the reverse as a pre-mission and preflight checklist. Individual unit may overprint unique requirements on this form.

13.9.2. AF Form 4085, *Mission Expense Record*. Use this form to record all expenses related to mission requirements. On each mission, separate copies of the AF Form 4085 will be maintained for passenger and crew meals/special requests. Ensure receipts are separated and retained for mission contact/PIC review. If unable to get a receipt from a vendor, prepare an itemized list of purchases and sign and date it. Upon mission completion, if the contact does not want leftover items, follow squadron policy for disposal (e.g. charity, etc.).

Chapter 14

COMMUNICATION SYSTEMS OPERATOR (CSO) PROCEDURES

14.1. General. This chapter outlines procedures for CSOs not in the FCM, other Air Force directives, or elsewhere in this volume.

14.2. Responsibilities. CSO is responsible for inspecting, operating, and maintaining all communications and electronic equipment aboard the aircraft while on a mission. Monitor and safeguard all classified material. Only CSOs are authorized access to the aircraft safe.

14.2.1. Assure communications resources are available to meet the DV party's communication requirements.

14.2.2. Assure adequate communications and electronic spare parts are available to support the mission.

14.2.3. Distribute message traffic aboard the aircraft. CSOs will not serve as a courier for classified message traffic received during ground operations.

14.3. Pre-Mission Procedures.

14.3.1. Review planned mission itinerary for mission profile and coordinate with the user's communications agency to determine mission communication requirements. Following coordination with the user's communications agency, contact the GNOC, if applicable, to ensure ground communications infrastructure is operational and properly configured to support user requirements.

14.3.1. **(89AW)** Prior to each mission, CSOs are strongly encouraged to brief COMSEC importance to the contact. A sample of this briefing can be found in the CSO's Communications Guide.

14.3.2. Determine spare communications and electronic equipment requirements and arrange procurement.

14.3.3. Determine crypto kit requirements and advise squadron COMSEC account custodian. Arrange with the PIC if special arrangements must be made to safeguard COMSEC material during a mission.

14.3.4. Notify SOC of all special communication system support requirements, particularly if the special request was denied by a support agency. SOC will coordinate availability with MAJCOM tasking authority and applicable agencies.

14.3.5. Review applicable FLIP and the FCG to determine if there is any special communication reporting during en route travel or on arrival into all destinations.

14.3.6. When HFGCS VIP support is required, the CSO will ensure appropriate agencies are notified.

14.4. Pre-Flight Procedures.

14.4.1. Pick-up or arrange delivery of crypto kits.

14.4.2. Accomplish preflight inspections according to the FCM and COMSEC checklist.

14.4.3. Advise using and/or supporting agencies of aircraft communication status, i.e. limitations, available circuits, the need to report all communications problems to the CSO, etc.

14.4.4. Obtain a passenger manifest. Ensure the manifest is accurate for each leg of the mission.

14.4.5. **(Added-89AW)** CSOs are authorized to remain on board the aircraft during K-9 security sweeps. If pre-flight has started when the dog handlers arrive, one CSO may remain on-board the aircraft to maintain visual control of COMSEC materials. Stand clear of the K-9 and the handler and do not approach the K-9 in any manner.

14.5. In-Flight Procedures.

14.5.1. Maintain continuous phone patch capability and data circuit capability, as required. All circuits available for the mission will be monitored at all times.

14.5.1.1. The GNOC is the single POC for all passenger related communications issues. The GNOC will coordinate troubleshooting of all communications outages and problems with government and commercial service providers and notify applicable DoD agencies of the problems. CSOs will report all communications problems to the GNOC in a timely manner and IAW local procedures.

14.5.2. Transmit departure and arrival reports and other C2 communications as directed by the PIC.

14.5.2.1. The unit CP is the single POC for reporting all arrival and departure information for all VIP Missions. For USAFE, the AMD is the single POC. The local CP and some ground support agencies may require certain departure and arrival information items to keep track of their DV locations.

14.5.2.1.1. Departure and Arrival Messages. Refer to local supplement for specific message content. As a minimum, the message will contain the call sign, the time of block departure, Estimated Time of Block-in/Block-out (ETB) to next station, maintenance status, DV code, total number of official passengers, total “space A” passengers, and if applicable, the reason for a late takeoff/block-in. Request customs, agriculture, and immigration if needed.

14.5.2.2. Two Hour Out Report. A two hour out report will be sent to the next destination to update them of the DV’s arrival time. All requests for aircraft servicing and any other special requests should be made at this time.

14.5.3. Transmit HF oceanic position reports if directed by the PIC and provide timely and accurate weather reports during the mission.

14.5.4. Relay DV messages and arrange passenger phone patch service, as required. Brief passengers on phone patch procedures. Advise passengers what type of circuit their phone patch is being placed over i.e. “Secure” or “NonSecure”, and that the circuits are subject to monitoring.

14.5.5. Receive and distribute message traffic. All message traffic and requests will be delivered to passengers immediately after receipt. Ensure classified messages are stamped

with applicable markings and note any special delivery instructions. Recipients must sign for all Top Secret messages.

14.5.6. Comply with local directives concerning disposition of messages, files, and logs. If they are records, ensure the dispositions are consistent with the Air Force Records Disposition Schedule.

14.6. En Route Security of Classified Material.

14.6.1. When RAVENs are carried; any level of classified material may be left onboard the aircraft in locked safes/security containers.

14.6.2. When RAVENs are not carried, after each flight and before departing aircraft, zeroize all COMSEC equipment. All superseded keying material will be destroyed. For all missions, place all classified keying material in a National Security Agency (NSA) approved sealable bag (computer disks will be placed in an anti-static bag before they are placed in the bag). After ensuring that the number on the strip matches the number on the bag, seal the bag and remove the strip for safekeeping. The sealable bag will be placed in the aircraft safe, which will be locked. Material will remain sealed and locked until the crew shows for the next flight.

14.6.3. The aircraft will be sealed (locked) and/or the alarm system activated (assuming no ASNCOs accompanied the aircraft) for all missions carrying classified material.

14.6.4. Upon arrival at aircraft and before each flight, the aircraft, security container, security bag and contents must be checked for signs of tampering or penetration. Match the serial number on the security bag with the serial number on the strip. Check security bag for any cuts, rips, discoloration or other abnormalities. Inventory or destroy (as necessary) all COMSEC materials. If any violation of the aircraft safe or its contents has taken place, or if the inventory shows discrepancies, you will assume a compromise has taken place. If this occurs, immediately contact CP and COMSEC account custodian by secure means if possible. Advise them of the situation and the mission impact. If a secure means is unavailable, identify to the COMSEC account custodian the affected line items from SF 153, *COMSEC Material Report* in question. They will advise the controlling agency. The COMSEC account custodian will advise you as to the disposition of the material and what actions to take with it.

14.6.5. US military guards not assigned to the VIP Aircraft may be treated as security guard status after their credentials have been verified. Foreign military/civilian guards fall into several categories. Current Operations and SOC will provide guidance on each situation. The aircraft will always be sealed (locked) and/or alarmed any time guards not assigned to the VIP Aircraft are used to guard the aircraft.

14.6.6. Securing Passenger Classified Material. Prior to leaving an aircraft, the CSO and FA will conduct a walk through of passenger compartments. During a mission, if classified documents are visible, secure the documents in the aircraft safe/security container and leave the passenger a note. If the documents exceed the safe's capacity, safeguard the documents, then attempt to contact the party and find adequate storage. When returning to home station at the end of a mission if classified documents are left on the aircraft by a passenger, work with the home station CP to have the classified documents returned to the passenger (do not release classified to uncleared personnel).

14.6.7. Simultaneous securing of weapons, cash and COMSEC is authorized in the aircraft safe if no other option is available.

14.7. Post Flight Procedures.

14.7.1. Accomplish postflight inspections including the FCM and COMSEC checklists.

14.7.2. Secure all classified materials and equipment. Put all classified waste in a burn bag marked with the highest classification, handling instructions, and mission number.

14.8. Post Mission Procedures.

14.8.1. Attend aircrew debrief as required.

14.8.2. Turn-in crypto kits.

14.8.3. Debrief communication systems operator superintendent and other applicable agencies.

14.8.4. Forward all communications problem logs, communications reports, and customer comment cards to the GNOC, MAJCOM/A6 and AMC/A6NG.

14.9. Destruction of Classified Material.

14.9.1. COMSEC Material Destruction. Any reliable DoD member may act as the witnessing official regardless of the individual's security clearance. If the witnessing official does not have the required clearance, allow the individual to see only the short title of the document/keylist being destroyed. COMSEC kits will be updated IAW security directives throughout the mission.

14.10. Information Assurance (IA).

14.10.1. This policy applies controls for all operations, maintenance, and logistics support activities associated with the classified/unclassified information systems and Local Area Networks (LAN) onboard the VIP fleet. The aircraft LANs provide customer access to secure/non-secure home domains and networks. The subsequent paragraphs detail the responsibilities of all organizations responsible for IA on the VIP fleet.

14.10.2. Aircraft information system users are the first line of defense in maintaining a vigilant IA posture. Users are afforded access to VIP Aircraft information systems/networks based on need-to-know, security clearance, and qualifications. VIP Aircraft information systems users are required to:

14.10.2.1. Protect system information, user identifications, passwords and network resources according to established AF and DoD regulations.

14.10.2.2. Disconnect any portable electronic device and report system security incidents, classified message incidents, vulnerabilities, and virus attacks to the aircraft CSO or Data Systems Operator (DSO).

14.10.2.3. Ensure any portable electronic device (ie., laptop, PDA, etc.) is compliant with home agency software patch levels and antivirus definitions.

14.10.2.4. Maintain current antivirus software on their portable electronic devices IAW AFI 33-200, *Information Assurance (IA) Management*, paragraph 3.27, and obtain CSO/DSO approval before disabling or changing the approved antivirus software.

14.10.2.5. Users will complete a full antivirus system scan of their computers just prior to connection to the aircraft network systems.

14.10.2.6. Ensure they do not use non-standard software (i.e., Freeware, Shareware, public domain software, etc.) unless approved for use by their Designated Approval Authority (DAA).

14.10.3. The aircraft CSO/DSO are the second line of defense in maintaining a strong IA posture. They are also in a unique position as being the only interface with the user to advocate IA policies and regulations. Additionally, the CSO/DSO is the liaison between the user and the Information Systems Security Officer (ISSO). To aid the ISSO and ensure proper IA, the CSO/DSO will:

14.10.3.1. Report system security incidents, classified message incidents, vulnerabilities, and virus attacks to the ISSO and the Andrews AFB GNOC.

14.10.3.2. Ensure users are aware that they are not allowed to use non-standard software (i.e. Freeware, Shareware, public domain software, etc.) while connected to an aircraft system unless approved for use by their DAA.

14.10.4. The GNOC is the last line of defense between the VIP airborne networks and the DISN. GNOC personnel provide 24/7 support to the VIP fleet and serve as the single POC for IA issues. The Andrews AFB GNOC will:

14.10.4.1. Monitor network traffic (inbound/outbound utilizing sensors).

14.10.4.2. Report system security incidents, classified message incidents, vulnerabilities, and virus attacks to the AMC NOSC.

14.10.4.3. Ensure latest antivirus signatures are loaded on all ground infrastructure equipment and available to the CSO/DSO and aircraft information systems users for updates.

14.10.4.4. Perform ground infrastructure system scans when malicious logic activity is detected/reported.

14.10.4.5. Ensure infected system(s) are taken off-line (Ground/Air Infrastructure).

14.10.4.6. Ensure Firewall protections/configurations are current (based on Ports/Protocols list or as directed by the AMC NOSC).

14.10.4.7. Provide CSOs/DSOs information on latest virus definitions and AF/DoD Information Assurance policies/instructions/regulations.

14.10.4.8. Additional roles and responsibilities for the GNOC can be found in the EACN CONOPS and local directives.

Chapter 15

AIRCRAFT SECURITY (RAVEN) PROCEDURES

15.1. General. This chapter outlines aircrew responsibilities and procedures for aircraft security NCOs (RAVENs) assigned to VIP missions. On missions, they are under the authority of the PIC. The RAVEN NCOIC will be pre-designated and will supervise the other RAVENs during the mission.

15.2. Responsibilities. RAVENs protect Presidential, Presidential Support, and certain other VIP missions and associated equipment according to AFI 31-101, 31-104V1, AFJI 31-102, *Physical Security* and Chapter 7 of this AFI. RAVENs are responsible to the PIC, who approves and coordinates any authorized deviations from the procedures in AFI 31-101, 31-104, and AFJI 31-102. RAVENs coordinate aircraft security protection with local military and civilian authorities. Assure local security efforts are smoothly integrated into the total security system to protect the aircraft. WG/CCs may authorize the use of augmentees to RAVEN teams.

15.3. Premission Procedures. All RAVENs will attend the PIC's aircrew briefing, when applicable. ***EXCEPTION:*** When RAVENs are not collocated, ensure the RAVEN NCOIC is verbally briefed by the PIC on the day the aircrew brief is held and that the entire RAVEN team is briefed by the PIC on the day of departure. The RAVEN NCOIC briefs his team on mission requirements, threat analysis, and specific duty assignments for the mission. The RAVEN NCOIC contacts the PIC when notified of the mission and assists in coordinating advance security support at en route destinations as required.

15.4. Preflight Procedures. RAVENs will arm themselves and will normally report to the aircraft not later than 2 hours prior to scheduled departure time.

15.4.1. Security Check. Conduct a complete security check of the aircraft, inside and outside. Assume sentry positions as directed by the RAVEN NCOIC.

15.4.2. Mission Information. The RAVEN NCOIC is responsible for obtaining passenger manifests and crew orders, mission itinerary cards, en route stop cards, and the AF Form 1109**,** *Visitor Register Log*.

15.4.3. Aircraft Access Control. Personnel listed on the applicable unescorted entry list or the passenger manifest will be granted unescorted entry on the aircraft. Manifest changes for Presidential aircraft must be approved by the duty military aide to the President. Manifest changes for Presidential Support aircraft are approved by the PIC. Manifest changes for all other aircraft are approved by the mission contact officer or PIC. RAVENs board the aircraft only after all passengers and other aircrew members have boarded.

15.4.4. Baggage Control. One RAVEN will be positioned as a sentry at the baggage compartment until all baggage is loaded and the compartment is secured. Assure all baggage is properly identified. Cross-check baggage labels against the passenger manifest.

15.5. In-Flight Procedures. Report all security problems to the PIC. When the aircraft is transporting space available passengers, the RAVEN NCOIC assigns team members (if required) to occupy seats in each passenger compartment where passengers are seated. Don't allow passengers to have access to their stowed baggage in-flight.

15.6. Post-Flight Procedures. When the aircraft blocks in, RAVENs deplane first. Take up pre-designated positions fore and aft of the aircraft. When the baggage compartment is opened, one RAVEN monitors baggage unloading and remains as a sentry until the baggage compartment is secured. If crew baggage will be out of crewmember's control, (e.g. clearing customs) a RAVEN will accompany the baggage at all times. If using secured fuel supplies, one RAVEN checks the numbered seals against the documents provided by the mission contact officer or advance agent.

15.6.1. Local Security. If local security forces will augment RAVENs during ground times, the RAVEN NCOIC will brief them on their duties and responsibilities.

15.6.2. Miscellaneous. At least one RAVEN will always be stationed as primary sentry at all times. Presidential, Presidential Support, and certain other VIP missions protected by RAVENs are not sealed. The RAVEN NCOIC schedules RAVENs for sentry duty.

15.7. Post Mission Procedures.

15.7.1. Continued Security Protection. If the aircraft is Presidential, Presidential Support or if the aircraft is to maintain upgraded security status, the RAVEN will maintain security protection until relieved by appropriately cleared military sentries.

15.7.2. Terminating Security Protection. If the aircraft security status is to be terminated, RAVENs remain at the aircraft until all passengers and baggage are unloaded and the PIC terminates the upgraded security status according to AFI 31-101.

15.7.3. After Termination. When relieved, turn in weapons and ammunition to the armory. Comply with local debriefing requirements. The RAVEN NCOIC turns in the completed AF Form 1109, *Visitor Register Log*.

15.8. AF Form 1109, Visitor Register Log. Consult local directives concerning completion and authentication procedures for this form.

Chapter 16

FLYING CREW CHIEF (FCC) PROCEDURES

16.1. General. This chapter outlines duties and responsibilities of aircraft crew chiefs. Normally, only C-9, C-32, C-40 and VC-25 crew chiefs fly with their aircraft on all missions. Crew chiefs can be scheduled to fly on other aircraft as directed by the WG/CC. The maintenance organization coordinates with appropriate agency (SOC or equivalent) to schedule crew chiefs to each mission. Manning requirements are IAW chapter 3 of this AFI. The crew chief will be listed on the flight authorization.

16.2. Responsibilities. The crew chief is the primary aircraft mechanic and performs maintenance to maintain a mission-ready aircraft status. After reporting for a mission, the crew chief is responsible to the PIC or EAC (as appropriate to their MDS). As a minimum, the crew chief shall:

16.2.1. Perform or assist aircraft servicing at all stations.

16.2.2. Accomplish preflight, thru-flight and post-flight inspections per TO 00-20-1 and applicable supplements. Assist flight engineers during preflight, as needed.

16.2.3. Manage the aircraft's en route mission support kit (MSK) and log.

16.2.4. Perform maintenance at en route stations.

16.2.5. Perform aircraft block-out and block-in procedures.

16.2.6. Ensure inventory of life support equipment and dash-21 equipment is accomplished, as the PIC's representative.

16.2.7. Maintain the AFTO 781 series. Inform EAC or PIC of all maintenance discrepancies entered in AFTO 781A.

16.2.8. Be responsible for the DD Form 1896 and Multi Service Card**.**

16.2.9. Be responsible for AF Form 15 and handle all aircraft related payments on aircraft.

16.2.10. Ensure EROPS maintenance procedures and servicing are accomplished on EROPS capable aircraft.

16.2.11. Ensure EROPS maintenance release is properly signed off prior to each flight for EROPS capable aircraft.

16.2.11.1. For C-32 and C-40 aircraft, ensure appropriate home station maintenance is updated with aircraft status after each leg (if possible).

16.3. Procedures. Attend the PIC's pre-mission aircrew briefing. Brief the flight engineers or PIC on status of the aircraft, recent maintenance history, and MSK concerns. Discuss requirements for aerospace ground equipment (AGE) and servicing requirements needed at each stop. Confirm aircraft configuration.

16.3.1. For All Departures. Assure the required fuel load, as briefed by the PIC, is aboard. Ensure completion of the pre-departure checklist (if applicable) and all required MSK items are aboard aircraft. Aircraft positioning will be accomplished by taxiing aircraft with qualified aircrew members or by towing aircraft by maintenance support personnel to

terminal or DV spot when required. Ensure required AGE is available and connect to aircraft as required. Assist in placing boarding steps or ramps in position and removal when tasks are complete. Ensure AFTO forms are properly completed. Assist aircraft baggage/cargo loading to ensure weight and balance criteria is properly maintained. Report any deviations to PIC (required on C-40).

16.3.2. In-flight Duties. FCCs will not perform in flight duties/maintenance unless in the opinion of the PIC an emergency condition exists requiring FCC's assistance.

16.3.3. For All Arrivals (Intermediate or Overnight). Perform scanner duties outside of the aircraft (as required) during ground operations as required by the PIC. Extend aircraft stairs (if applicable). Deplane before DV and passengers (with the flight engineer if applicable). Assist in positioning boarding steps and ramps. Ensure aircraft is safely blocked-in. Coordinate necessary ground support and equipment for departure and servicing procedures. Accomplish all servicing (if applicable to MDS) and perform required maintenance. Perform any required inspections. Ensure required AGE is available for departure.

16.3.3.1. For Overnight Stops. Accomplish post-flight inspections. Perform or assist all servicing operations. Install required FOD/dust covers and plugs IAW the FCM.

16.3.4. If Maintenance Is Required. When aircraft parts are required, use available MSK parts to the maximum extent possible. Coordinate with PIC or EAC before ordering or purchasing parts from available sources. Always determine the applicable part number through the Illustrated Parts Catalog, or contracted servicing partner prior to ordering and/or purchasing parts. Coordinate with the PIC to determine delivery location for all shipped parts. Ensure home station maintenance is informed and can aid in coordination for parts. Advise unit C2 (CP or AMD) of estimated ETIC for dispatch release. Typically, ETIC = parts delivery time to aircraft + job completion time. Communicate this time to PIC when able.

16.3.5. On Return to Home Station. Comply with local debriefing requirements. Replace (or back order) any used MSK items. Turn in all AF Form 15 and AF Form 664 to unit resource manager.

16.4. Authority to Clear Red X Symbols in the AFTO 781A. IAW TO 00-20-1, when authorized by the home station maintenance group commander and CLS agreement, certified FCCs are authorized to clear red X write-ups.

Chapter 17

FUEL PLANNING

17.1. Fuel Requirements. This paragraph implements standard minimum fuel requirements and will be used in conjunction with procedures established in the applicable FCMs.

17.2. General. As a minimum, required ramp fuel will consist of all fuel required for engine start, taxi, warm-up, APU operation, takeoff, climb, cruise, en route reserves (if required), alternate/approach/missed approach (if required), descent, approach, and landing.

17.3. Reserve Fuel Planning. Plan a 45-minute fuel reserve at destination or alternate (when an alternate is required).

17.3.1. Reserve fuel will be computed using consumption rates providing maximum endurance at 10,000 feet MSL at destination gross weight. If an alternate is required, compute using weight at alternate destination. When computing reserve fuel for remote destinations, use consumption rates providing maximum endurance at 20,000 feet MSL.

17.3.2. En route reserve fuel. Compute using 10% of the flight time fuel over Class II airspace, not to exceed 1 hour at normal cruise OR contingency fuel as designated on commercially dispatched flight plans.

17.4. Alternate Fuel Planning. If required, plan fuel to an alternate IAW AFI 11-202V3 and chapter 6 of this regulation.

17.4.1. If two alternates are required, compute fuel from destination to most distant alternate.

17.4.2. For remote destinations, holding is authorized in lieu of an alternate airport. In such situations, use 2+00 reserve fuel (1+15 holding in lieu of an alternate and 0+45 fuel reserve IAW 17.3.).

17.4.3. When determining fuel required for holding in lieu of an alternate, compute using holding tables at 20,000 feet MSL at destination gross weight.

17.5. Required Ramp Fuel for EROPS Capable Aircraft. Block to block fuel must be greater than or equal to: fuel required to fly to the ETP, experience a simultaneous engine failure and loss of cabin pressure, and proceed from the ETP to a recovery field at 10,000 feet or 13,000 feet (if sufficient crew oxygen is available) using single engine cruise procedures. If extra fuel is required, it will be added as identified extra. ***NOTE:*** If passengers are not onboard and all crew are equipped with supplemental oxygen, flight may be planned and flown using recovery from the ETP at Single Engine Service Ceiling (up to FL 250), instead of 10,000 feet.

17.6. Equal Time Points (ETPs).

17.6.1. If the flying time to a suitable alternate airfield exceeds 60 minutes, computed at 10,000 feet, single-engine cruise speed, in still air, from any point along the route of flight, computation of an ETP is required. ETPs may be computed by MAJCOM certified CFPs. Annotate it along the planned route of flight on the OPC/Global Navigation Chart.

17.6.2. Compute ETPs according to the following formula:

$$\text{FL100 ETP (nm)} = \frac{D \times GSR}{}\text{, where:}$$

GSR+ GSC

D - distance in nautical miles between destination field and recovery field (not necessarily the departure field).

GSR - average ground speed to continue to return to a recovery field at 10,000 feet. To compute groundspeed, apply forecast headwind/tailwind component at 10,000 feet to true airspeed.

GSC - average ground speed to continue to destination at 10,000 feet.

Example: D = 1040nm, 10,000 feet winds forecast 60 kt headwind to continue, 80 kt tailwind to return, TAS at 10,000 feet, Long Range Cruise (LRC), is 324 kts at std day, 86,000 lb gross wt.

$$ETP = \frac{(1040)(404)}{(404 + 264)} = 629 \text{ nm from the recovery base.}$$

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.

17.7. Safety. PICs must ensure that all factors be considered when determining ramp fuel. For all aircraft, factor in payload and the risk involved in fuel planning over oceanic and mountainous regions and the resultant OEI performance capability during all phases of the flight. Consider fuel needed at ETPs and en route alternate suitability. Utilize EROPS planning, if applicable, to enable increased capability or safety in the event of emergency. Finally, consider weather patterns at the destination alternate. If it is too close to a poor weather destination, increase ramp fuel to provide a more suitable alternate.

17.8. Fuel Conservation. Aircrew and mission planners will manage aviation fuel as a limited commodity and precious resource. Fuel optimization will be considered throughout all phases of mission planning and execution. Excessive ramp and recovery fuel adds to aircraft gross weight and increases fuel consumption. Do not ferry extra fuel beyond optimum requirements for safe mission accomplishment and training objectives. Aircrew and mission planners will optimize flight plans and flight routing for fuel efficiency. In-flight procedures such as climb/descent profiles and power settings should also be considered for efficient fuel usage. Aircrew should employ the following aviation fuel optimization measures without compromising flight safety or jeopardizing mission/training accomplishment:

17.8.1. Use optimized CFPs when possible. LRC and optimum altitude should be flown. Limit the use of the APU when possible. Delay engine start. Cruise Center of Gravity (CG) should be aft if practical. Fly en route descents when possible.

17.8.2. Normal cruise speeds are as follows: C-9/C-40: mach 0.78; C-20/C-32/C-37: mach 0.80; VC-25: mach 0.84. Use high speed cruise only when needed to satisfy the requirements of the DV. Do not exceed FAR or host nation aircraft speed restrictions.

17.8.3. Extra fuel (identified/unidentified) may be added to required ramp fuel load. Unidentified fuel allows crews some flexibility when dealing with unplanned contingencies (e.g., unreliable NAVAIDs, weather avoidance, ATC delays, etc.) and should be kept to a minimum. Do not carry extra fuel for convenience; roughly 3 percent of the excess will be burned each hour. Use the following guidelines when determining extra fuel requirements:

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

17.8.3.2. When compressed ground times during single multi-day sortie missions preclude refueling at en route stops.

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

17.8.3.4. For known holding delays in excess of standard.

17.8.3.5. For anticipated off course weather avoidance to include avoidance of forecast turbulence detrimental to passenger comfort.

17.8.3.6. If decompression with passengers would cause a descent to an unplanned altitude resulting in consumption in excess of planned fuel; add fuel to recover at a suitable alternate at the appropriate altitude.

17.8.3.7. To offset increased fuel consumption due to icing.

17.8.3.8. When destination NAVAIDs, ATC services, or landing aids are unreliable or insufficient.

17.9. Fuel Limitations. VIP Aircraft are not allowed to operate on JP-8+100 except in emergency conditions. If inadvertent refueling with JP-8+100 occurs, the aircraft will be immediately de-fueled prior to flight. All JP-8+100 locations are required to maintain a clean JP-8 capability to support transient aircraft. Every effort must be made not to allow aircraft flight while serviced with JP-8+100. If emergency refueling occurs utilizing JP-8+100, flight crews will make an AFTO 781 entry stating, "CAUTION: Aircraft refueled using JP-8+100, preventive measures must be taken when de-fueling. Close coordination with maintenance and POL fuels personnel must be accomplished."

17.10. Aircraft Specific Fuel Planning. As a minimum, comply with AFI 11-202V3 fuel requirements and the following:

17.10.1. C-9.

17.10.1.1. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): 4,000 lbs. This includes the required reserve fuel IAW 17.3.

17.10.2. C-20.

17.10.2.1. APU, Start, Taxi, Takeoff Fuel: 500 lbs. (C-20B), 400 lbs. (C-20H).

17.10.2.2. Approach and Landing Fuel: 500 lbs.

17.10.2.3. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): 3,000 lbs. This includes the required reserve fuel IAW 17.3.

17.10.3. C-37.

17.10.3.1. APU, Start, Taxi, Takeoff Fuel: 500 lbs.

17.10.3.2. Approach and Landing Fuel: 500 lbs.

17.10.3.3. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): 3,000 lbs. This includes the required reserve fuel IAW 17.3.

17.10.4. VC-25.

17.10.4.1. APU, Start, Taxi, Takeoff Fuel: 2,000 lbs.

17.10.4.2. Alternate Fuel: 5,000 lbs. minimum.

17.10.4.3. Approach and Landing Fuel: 2,500 lbs.

17.10.4.4. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): Required fuel reserve IAW 17.3.

17.10.5. C-32.

17.10.5.1. APU, Start, Taxi, Takeoff Fuel: 900 lbs.

17.10.5.2. En Route Reserve Fuel: Normally use 1,500 lbs.

17.10.5.3. Alternate Fuel: 2,500 lbs. minimum.

17.10.5.4. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): 4,500 lbs. This includes the required reserve fuel IAW 17.3.

17.10.6. C-40.

17.10.6.1. APU, Start, Taxi, Takeoff Fuel: 600 lbs.

17.10.6.2. En Route Reserve Fuel: Normally use 3,000 lbs unless calculated to be a lower value based on actual time over Class II airspace.

17.10.6.3. Alternate Fuel: 2,500 lbs. minimum.

17.10.6.4. Minimum fuel required upon landing at destination, or landing at alternate (if an alternate is required IAW AFI 11-202V3): 3,800 lbs. This includes the required reserve fuel IAW 17.3.

Chapter 18

AIR REFUELING

18.1. Air Refueling (AR) Limitations. This chapter establishes guidelines applicable to VC-25 aircraft and aircrews, and is supplemental to those prescribed by the flight manual and other applicable directives. The PAG training for air refueling includes simulators and alternate USAF B-747 derivative aircraft. The use of Presidential Aircraft for air refueling training is at the Presidential pilots' discretion.

18.1.1. Refueling During Training Missions. AR should not be accomplished during training missions when:

18.1.1.1. Conditions are encountered that, in the opinion of the PIC, result in marginal control of either aircraft or the boom.

18.1.1.2. Either the tanker or the receiver has less than the full number of engines operating.

18.1.2. Tanker Autopilot. Tanker pilots must notify receiver pilots when any axis of the autopilot is not used. If the tanker copilot is required to fly autopilot-off for training, unqualified receiver pilots will not fly the aircraft. Tanker pilots must notify the receiver when copilot autopilot-off training is conducted and receive confirmation that the receiver pilot flying the aircraft is qualified.

18.1.3. AR Without Tanker Disconnect Capability. Without tanker disconnect capability means the boom operator cannot trigger an immediate disconnect. AR will not be conducted after a known loss of tanker disconnect capability. ***EXCEPTION:*** Fuel emergency situation. ***NOTE:*** When conducting AR without tanker automatic disconnect capability, limit contacts to the minimum number necessary to complete mission requirements. Do not accomplish boom limit demonstrations, or practice emergency separations while in the contact position.

18.1.4. Override Boom Latching**.** This is an emergency procedure. Tanker automatic disconnect limits and tanker normal and manual disconnect capability is inoperative. If approved, use of this procedure will be authorized in the mission directive. ***NOTE:*** Boom operator and receiver pilot must coordinate all actions as required by applicable directives and checklists when making AR contacts using emergency boom latching procedures.

18.1.5. Reverse AR procedures can be accomplished for operational necessity only.

18.1.6. Practice Emergency Separations:

18.1.6.1. Prior to the actual accomplishment of a practice emergency separation, coordination between the tanker pilot, boom operator, and receiver pilot is mandatory. Coordination must include when the separation will occur and who will give the command of execution. Tanker pilot coordination may be accomplished over interphone with the boom operator.

18.1.6.2. If separation is initiated from the contact position, the receiver's AR system must be in normal, and a boom operator disconnect capability with the receiver must exist.

18.1.6.3. Practice emergency separations will not be accomplished with passengers on board unless passengers are seated with seat belts fastened.

18.1.7. Receiver AR Training for Unqualified Receiver Pilots. (This includes copilots, AC upgrade candidates and ACs refueling from the right seat). In-flight training will be accomplished under direct IP supervision. The following procedures apply:

18.1.7.1. The receiver pilot must inform and receive acknowledgment from the tanker. The boom operator operating the boom controls must be qualified for the applicable category receiver. (This restriction does not apply during school house training provided the student boom operator is under direct instructor supervision.)

18.1.7.2. If the tanker autopilot is off, the tanker copilot will not fly the aircraft. (This restriction does not apply during school house training provided the student receiver pilot and the student tanker copilot are under direct IP supervision.)

18.1.7.3. For receiver pilot initial qualification or re-qualification, the receiver instructor/examiner pilot will be in one of the pilot seats with immediate access to the controls through all phases of the refueling from pre-contact until post air refueling.

18.1.8. If a change of pilot control is made, the receiver aircraft will move back to at least the pre-contact position except for immediate assumption of control by the instructor pilot.

18.1.9. If a receiver seat change takes place, move back to at least 100 feet in trail of the tanker and to a point where the receiver pilot can maintain visual contact with the tanker until the seat change is completed.

18.1.10. When conducting AR behind a KC-135, tanker disconnect capability must be demonstrated by a boom operator initiated disconnect prior to conducting a limit demonstration or a practice emergency separation from the contact position.

18.1.11. Weather Limitations.

18.1.11.1. Turbulence: Do not launch if severe turbulence is forecast on the refueling track. Terminate refueling if moderate turbulence is encountered.

18.1.11.2. Visibility: Do not close from 1 NM range (2 NM for receiver or tanker cell formations) unless you have visual contact with the tankers. Discontinue refueling if in-flight visibility is insufficient to continue safe refueling operations.

18.1.11.3. Recovery airfield must meet the weather criteria of AFI 11-202V3 for alternate airports.

18.2. Not Used.

18.3. Not Used.

18.4. Not Used.

18.5. Receiver Aircraft Commander Responsibilities.

18.5.1. Receiver aircraft shall squawk normal when separation from the tanker is greater than 3 miles.

18.5.2. Receiver aircraft will maintain two-way radio contact with ATC until cleared to the aerial refueling block altitude and cleared to the AR frequency by ATC.

18.6. ATC Clearance.

18.6.1. Altitude Reservations (ALTRV). Air refueling operations normally are done on tracks or anchor areas published in the DoD FLIP. Certain missions or operational considerations may require air refueling operations in areas not published in FLIP in which an ALTRV is often used.

18.6.1.1. An ALTRV may include all, a portion, or portions of a published route. On operational missions, an ALTRV is usually provided for the refueling portions of the route. In some cases, an ALTRV is provided from the point of departure to a specified point short of the destination.

18.6.1.2. Aircraft operating on an ALTRV must operate within the altitude, time, and areas specified. Actual fix timing will not exceed 10 minutes from ALTRV estimates; otherwise the ALTRV will be canceled by ATC.

18.6.1.3. The mission must be airborne within a certain time period. The end of this period is the assigned ALTRV Void if Aircraft Not Airborne (AVANA) time. This ensures separation between aircraft. Unless otherwise specified, AVANA is 1 hour after ALTRV published departure time.

18.6.1.4. If a mission is delayed beyond AVANA, rescheduling normally is by 24hour increments based on the original departure time. It may be less provided the Central Altitude Reservation Facility and affected ATC agencies concur.

18.6.1.5. An ALTRV does not preclude ATC from using ALTRV airspace provided standard separation is applied between all aircraft.

18.6.2. ALTRV Format. See FAA 7610.4H, *Special Military Operations*.

18.6.3. Filing:

18.6.3.1. An ALTRV approval includes a complete description of the route, including altitudes to be flown. When filing a DD Form 175, you do not need to repeat this in the route of flight portion of the flight plan. When filing a DD Form 1801, this information is repeated in the route of flight portion. In either case, include the term ALTRV plus the nickname/code name of the ALTRV in the remarks section of the flight plan.

18.6.3.2. If the ALTRV is to a point short of destination, the route of flight after the ALTRV must be identified on the flight plan. To complete the route of flight portion of the flight plan, identify the ALTRV as before, immediately followed by end ALTRV coordinates or fix, and a subsequent route description.

18.7. Communications Failure. Aircraft experiencing two-way communications failure during the conduct of AR shall continue flight IAW the following procedures:

18.7.1. Squawk code 7600 for at least 2 minutes prior to exiting the track or anchor.

18.7.2. Aircraft that have not received altitude instructions beyond the exit point shall exit the track or anchor at the lowest altitude specified in the clearance for the refueling portion of the flight and proceed IAW "Procedures for Two Way Radio Failure IFR-VFR" set forth in the FIH.

18.8. MARSA (M ilitary Assumes Responsibility for Separation of Aircraft)--Applicability for Aerial Refueling. MARSA begins between the tanker and receiver when the tanker advises ATC that it is accepting MARSA. MARSA is not an ICAO recognized term. If in doubt as to what separation is provided by ATC, or what separation the aircrew is responsible for, query the tanker and/or controlling agency.

18.8.1. If MARSA has not been accepted by the tanker before the receiver reaching the air refueling initial point (ARIP), the receiver may be required to hold at the ARIP.

18.8.2. Once the rendezvous is completed, headings and altitude assignments may be made with the tanker concurrence with MARSA remaining in effect.

18.8.3. Upon completion of the rendezvous, receiver aircraft will remain within 3 miles of the tanker until MARSA is terminated.

18.8.4. MARSA ends when normal separation standards are established, ATC accepts control at end of refueling and ATC advises “MARSA is terminated.”

Chapter 19

TACTICAL EMPLOYMENT

19.1. General. Each unit will have a tactics ground training program tailored to the unit's combat taskings. Using a building block approach, the ground tactical training program forms the base of the unit's tactics program. Each unit's tactics ground training program may be different due to differences between unit mission taskings and MDS capabilities and equipment.

NOTE: Certain technical information was intentionally omitted or generalized to keep this chapter unclassified. Users should be aware that written additions to any portion of this document could cause it to become classified.

19.2. Responsibilities. The tactics ground training program will be a coordinated effort between unit tactics, intelligence, training, stan/eval and plans offices in order to ensure that continuity and the unit's specific mission taskings are addressed. The program is the responsibility of the squadron commander and is managed by the unit tactics officer.

19.2.1. Unit Tactics Officer. Responsible for the development, maintenance, and currency of the instructional materials used in the tactical training of aircrew. Responsible for ensuring motivated, informed, and credible instructors administer these materials. The tactics officer ensures the tactics training syllabus is comprehensive and covers all aforementioned topics. More importantly, it is his/her responsibility to teach and infuse tactics throughout the unit's operations. This is primarily accomplished by developing ground and flight training profiles to ensure aircrew members are trained in tactical mission planning and employment.

19.2.2. Tactics Library, Publications and Publicity. The unit tactics officer, with intelligence assistance, is responsible for developing tactics, techniques, and procedures for timely dissemination of tactical and intelligence information to unit aircrew members.

19.2.2.1. Tactics Library. The tactics library, unclassified and classified, is maintained by the unit tactics officer. Library contents are specified in appropriate MAJCOM supplements. AMC and AMC-gained crew will use AMCI 11-207, *AMC Weapons and Tactics Program*. This library provides comprehensive tactical reference and study material at the unit level. The most current MDS-specific AFTTP 3-1 and 3-3 must be part of the library. Each unit is encouraged to provide constructive updates to the AFTTPs and attend periodic AFTTP conferences. AMC/A3D will validate AFTTP changes/recommendations.

19.2.2.2. Tactics Publications.

19.2.2.2.1. Aircrew Tactics Guide. An Aircrew Tactical Guide/Tactical Flimsy should be developed by wing/group tactics. This in-flight guide should be unclassified and based primarily on MDS-specific AFTTPs. AMC Tactics (AMC/A3D), acting as lead MAJCOM, will validate all tactical guidance.

19.2.2.2.2. Combat Entry and Exit Checklists. As detailed in the MDS-specific AFTTP 3-3, Combat Entry and Exit Checklists should be checklist inserts for use on training and operational missions into simulated or actual threat environments. Expanded Combat Entry and Exit Checklists with detailed explanations/instructions

should be included in the Aircrew Tactics Guide for in-flight reference. In the absence of specific directives, the Combat Entry Checklist is initiated prior to entering the threat environment. The Combat Entry Point is determined by theater guidance or known/suspected weapons engagement zone (WEZ). In the absence of more specific directives, initiate this checklist no later than 30 minutes prior to entering the threat environment. If the aircraft will depart an airfield within a threat environment, or will enter the threat environment within 1 hour after takeoff, the checklist should be run prior to the line-up checklist. The Combat Exit Point is determined by theater OPORD/SPINS guidance or known/suspected WEZ.

19.2.2.3. Tactics Publicity. In order to disseminate current and relevant tactical information to crew members, the tactics office should create a variety of publicity sources. For example, the tactics office can create an unclassified and/or classified Tactics Read File, periodic tactics newsletter, AOR mission planning binders, etc. In addition, tactics should be periodically discussed at aircrew meetings, operations meetings, or commander calls. In addition to hosting the Tactics Review Board (TRB), the tactics office should be involved in unit/group/wing Stan/Eval Boards (SEBs) and Realistic Training Review Boards (RTRB).

19.3. Tactics Flight Training.

19.3.1. Scope. Tactics flight training will be based upon the maneuvers detailed in interim MAJCOM-released tactical employment supplements and, once formally published, on complete AFTTP 3-1/3-3 volumes. Due to the unique nature of VIP Missions, in-flight maneuvering should primarily emphasize exposure reduction (as a function of time and aircraft signature) in a threat environment. Finally, do not attempt any tactical maneuver that is not specifically mentioned in this publication without parent MAJCOM/A3 approval.

19.3.2. Objectives. The tactics flight training program is designed to provide VIP aircrews with the training necessary to confidently and successfully survive the combat threat environment without endangering aircrews or aircraft in peacetime. Simulators are the preferred medium for tactics training, but specific MDS tactics flight training syllabi may be comprised of aircraft-based training as well.

19.3.3. Tactical Maneuvers. In accordance with the more specific Maneuver Restrictions outlined in paragraph 19.4 of this AFI, the following tactical maneuvers are authorized for training and operational employment:

Table 19.1. C-20/C-37 Approved Tactical Maneuvers.

Phase of Flight	Maneuver Name	AFTTP 3-3/C-20/37 Reference
Tactical Slowdown	Idle (with or without speed brakes)	7.7.1
Tactical Descent	Full Flap (flaps 39 degrees) Descent	7.7.3.1
Tactical Descent	Partial Flap (flaps 20 degrees) Descent	7.7.3.2
Tactical Descent	Flaps Up Descent	7.7.3.3

Tactical Approach	Hi-Speed Instrument Approaches (ILS)	7.4.3
Tactical Approach	Course Reversal	7.8.2.1
Tactical Approach	Abeam Approach	7.8.2.2
Tactical Approach	Curvilinear Approach	7.8.2.3
Tactical Go-Around	Low-Closed Pattern	7.9.3.2
Tactical Departure	Low Altitude High Speed Departure	7.11.2.1
Tactical Departure	Medium/High Altitude Departure	7.11.2.2
Tactical Departure	Straight Ahead Departure	7.11.2.3
Tactical Departure	Spiral Up Departure	7.11.2.4

Table 19.2. C-32/40 Approved Tactical Maneuvers.

Phase of Flight	**Maneuver Name**	**AFTTP 3-3/C-32/40 Reference**
Tactical Descent	Clean Descent	7.7.1, Tables 7.7 & 7.8
Tactical Descent	Configured Descent	7.7.2, Tables 7.7 & 7.8
Tactical Approach	C-32/40 Level Cruise Decelerations	Figs 7.1 & 7.2
Tactical Approach	C-32/40 Low Altitude Max Rate Decelerations	Figs 7.3 & 7.4
Tactical Approach	High Speed Instrument Approach	7.8.3, Fig 7.5
Tactical Approach	Medium Altitude Approaches	7.8.4, Fig 7.6
Tactical Approach	Course Reversal	7.8.5.1, Figs 7.8 & 7.9
Tactical Approach	Straight-in Approach	7.8.5.2, Fig 7.10
Tactical Approach	Abeam Approach	7.8.5.3, Fig 7.11
Tactical Departure	C-32/40 Tactical Departures	7.10

19.4. Maneuver Restrictions.

19.4.1. For operational missions, see paragraph 5.4.1. of this AFI, regarding seat restrictions. Tactical maneuver training missions will include direct IP supervision with unqualified pilots (pilots gaining initial tactical certification) in the seat.

19.4.2. Passengers are not permitted when performing tactical maneuvers for training or currency. This restriction does not preclude performing tactical training maneuvers for currency or semi-annual training requirements on operational missions when no passengers are onboard (i.e. position/de-position legs).

19.4.3. All loose items aboard the aircraft will be secured prior to initiation of maneuver(s).

19.4.4. Crew must be fully briefed on all maneuvers. Consider notifying passengers prior to aggressive maneuvering on operational missions.

19.4.5. Complete combat entry/exit checklists and appropriate approach/departure checklists prior to initiation of maneuver(s).

19.4.6. Do not exceed aircraft operating or performance limits (thrust/speed/bank/configuration) at any time.

19.4.7. All low altitude departures must meet obstacle clearance criterion IAW paragraph 6.16 of this AFI. OG/CC or equivalent is waiver authority.

19.4.8. The final portion of all approaches will be stabilized. Stabilized is defined as on speed for configuration, gear down, on 3 degree glidepath and runway centerline. This stable platform must be established no later than ½ mile from runway threshold.

19.4.8.1. Initiate go-around if not stabilized for the approach.

19.4.9. Minimum weather for all operational and training tactical maneuvers is VMC.

19.4.10. Do not fly these tactical maneuvers for training at uncontrolled fields.

19.4.11. Ensure aircraft operations comply with all airspace rules unless waived.

19.4.11.1. During training, pre-coordinate procedures with local ATC any time tactical maneuvers will be accomplished. For frequent tactical training at a particular airfield, consider establishing a LOA. LOAs boost safety of flight and efficiency of maneuver by standardizing phraseology and dimensions for various tactical flight maneuvers between aircraft and controller.

19.5. Exercises.

19.5.1. Scope. Exercises provide realistic combat-scenario training. This training is representative of the unit mission tasking. Unit planners should ensure exercises are planned and flown to maximize training objectives.

19.5.2. Objectives. Tactics training should be integrated 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 planning:

19.5.2.1. Utilize warning, alerting, deployment and execution orders.

19.5.2.2. Theater OPORD/SPINS/ATOs should be sent by secure comm/data means during day of exercise.

19.5.2.3. Conventional exercises should stress the “ability to survive and operate” (ATSO) in a chemical environment as much as possible within the constraints of unit equipment, budget, and supplies.

19.6. Tactical Operations Employment. Reference MDS-specific AFTTPs.

19.7. Tactical Evaluations. Evaluation of aircrew tactics should validate the unit tactics training as specified in AFI 11-2SAMV2.

19.8. Forms Prescribed. AF Form 4084, *Mission Planning Worksheet*, and AF Form 4085, *Mission Expense Record*.

19.8. (89AW) Forms Prescribed. 89 AW Form 87, *VC-25A Performance Data;* AMC Form 25, (89 AW PAG Overprint), *Navigator Flight Plan and Record*.

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(89AW)

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ATTACHMENT 1

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Abbreviations and Acronyms

AC— Aircraft Commander

ACARS— Aircraft Communications Addressing and Reporting System

ACDE— Aircrew Chemical Defense Ensemble

ACF— Acceptance Check Flight

ACFP— Advanced Computer Flight Plan

ADIZ— Air Defense Identification Zone

AFDS— Automatic Flight Director System

AFFSA— Air Force Flight Standards Agency

AFIS— Airborne Flight Information System

AFSAS— Air Force Safety Automated System

AFTTP— Air Force Tactics, Techniques, and Procedures

AGE— Aerospace Ground Equipment

AGL— Above Ground Level

AHAS— Avian Hazard Advisory System

AIREP— Air Report

ALE— Automatic Link Establishment

ALS— Approach Lighting System

ALTRV— Altitude Reservation

AMD— Air Mobility Division

AMHS— Automated Message Handling System

ANP— Actual Navigation Performance

AOE— Airport of Entry

AOR— Area of Responsibility

AP— Area Planning

APOD— Aerial Port of Disembarkation

AR— Air Refueling

ARIP— Air Refueling Initial Point

ARTCC— Air Route Traffic Control Center

ASR— Approach Surveillance Radar

ASRR— Airfield Suitability and Restriction Report

ATC— Air Traffic Control

ATIS— Automated Terminal Information Service

ATO— Air Tasking Order

ATSO— Ability to Survive and Operate

AVANA— ALTRV Void if Aircraft Not Airborne

AVPOL— Aviation Petroleum, Oil and Lubricants

BAM— Bird Aircraft Model

BASH— Bird Aircraft Strike Hazard

BRNAV— Basic Area Navigation Airspace

C2— Command and Control

CAOC— Combined Air Operations Center

CBTA— Chemical-Biological Threat Area

CCA— Contamination Control Area

CDI— Course Deviation Indicator

CDS— Commercial Dispatch Service

CDT— Crew Duty Time

CECR— Crew Enhancement Crew Rest

CFP— Computer Flight Plan

CFR— Code of Federal Regulations

CIRVIS— Communications Instructions for Reporting Vital Intelligence Sightings

CG— Center of Gravity

CLS— Contracted Logistics Support

CND— Could Not Duplicate

CNDC— Canadian National Defense Contract

CNS/ATM— Communications, Navigation, Surveillance/Air Traffic Management

CODEL— Congressional Delegation

COMBS— Contractor Operated Maintenance Base Supply

COMSEC— Communications Security

CONOPS— Concept of Operations

CONUS— Continental United States

CP— Command Post

CPDLC— Controller to Pilot Datalink Capability

CPI— Crash Position Indicator

CRM— Cockpit/Crew Resource Management

CSM— Command Support Missions

CSO— Communications System Operator

CSS— Concurrent Servicing Supervisor

CVAM— Special Air Missions Office

CVR— Cockpit Voice Recorder

CW— Chemical Warfare

DA— Decision Altitude

DAA— Designated Approval Authority

DAO— Defense Attaché Office

DCS— Defense Courier Service

DER— Departure End of Runway

DESC— Defense Energy Support Center

DFSC— Defense Fuel Supply Center

DH— Decision Height

DNIF— Duty Not Including Flying

DoD— Department of Defense

DS— Defensive System

DSN— Defense Switching Network

DSO— Data Systems Operator

DV— Distinguished Visitor

DVG— Distinguished Visitor Guard

EAC— Enlisted Aircrew Coordinator

EACN— Executive Airlift Communications Network

EFB— Electronic Flight Bag

ELT— Emergency Locator Transmitter

EMC— Electromagnetic Compatibility

EMI— Electromagnetic Interference

EP— Evaluator Pilot

ERO— Engines Running Onload/Offload

EROPS— Extended Range Operations

ETA— Estimated Time of Arrival

ETB— Estimated Time of Block-in/Block-out

ETD— Estimated Time of Departure

ETIC— Estimated Time In Commission

ETP— Equal Time Point

EVS— Enhanced Vision System

FA— Flight Attendant

FAA— Federal Aviation Administration

FAF— Final Approach Fix

FBO— Fixed Base Operator

FCB— Flight Crew Bulletin

FCC— Federal Communications Commission

FCC— Flying Crew Chief

FCF— Functional Check Flight

FCG— Foreign Clearance Guide

FCIF— Flight Crew Information File

FCM— Flight Crew Manual

FDP— Flight Duty Period

FDR— Flight Data Recorder

FE— Flight Engineer

FIH— Flight Information Handbook

FIR— Flight Information Region

FLIP— Flight Information Publication

FM— Flight Manager

FMC— Flight Management Computer

FMS— Flight Management System

FOM— Flight Operations Manual

FS— Flight Surgeon

FSO— Flight Safety Officer

FSS— Flight Service Station

FOD— Foreign Object Damage

GCE— Ground Crew Ensemble

GDSS— Global Decision Support System

GNOC— Government Network Operations Center

GP— General Planning

GPS— Global Positioning System

HAA— Height Above Aerodrome

HAT— Height Above Touchdown

HATR— Hazardous Air Traffic Report

HF— High Frequency

HFGCS— High Frequency Global Communications System

HR— Human Remains

IA— Information Assurance

IAW— In Accordance With

ICAO— International Civil Aviation Organization

ICS— Infant Car Seat

IFF— Identification Friend or Foe

IFM— Integrated Flight Management

IFR— Instrument Flight Rules

ILS— Instrument Landing System

IMC— Instrument Meteorological Conditions

IMT— Information Management Tool

INS— Inertial Navigation System

IP— Instructor Pilot

IRS— Inertial Reference System

ISSO— Information Systems Security Officer

JFTR— Joint Federal Travel Regulation

JOG— Joint Operational Graphic

JOSAC— Joint Operational Support Airlift Center

LAN— Local Area Network

LFA— Legal For Alert

LNAV— Lateral Navigation

LOA— Letter of Agreement

LRC— Long Range Cruise

MAF— Mobility Air Forces

MAG— Military Assistance Group

MAP— Missed Approach Point

MARSA— Military Assumes Responsibility for Separation of Aircraft

MC— Mission Contributing

MDA— Minimum Descent Altitude

MDS— Mission Design Series

ME— Mission Essential

MEA— Minimum Enroute Altitude

MEP— Mission Essential Personnel

MEL— Minimum Equipment List

MISREP— Mission Report

MLS— Microwave Landing System

MMEL— Master Minimum Equipment List

MMO— Mobility Mission Observer

MNPS— Minimum Navigation Performance Specifications

MOA— Minimum Operating Altitude

MOCA— Minimum Obstruction Clearance Altitude

MOPP— Mission Oriented Protective Posture

MR— Mission Ready

MSC— Multi Service Corporation

MSK— Mission Support Kit

MSL— Mean Sea Level

NACO— National Aeronautical Charting Office

NAF— Numbered Air Force

NAT— North Atlantic Track

NCOIC— Non-Commissioned Officer in Charge

NDB— Non Directional Beacon

NGA— National Geospatial-Intelligence Agency

NIPR— Unclassified But Sensitive Internet Protocol Router

NMC— Not Mission Capable

NMCC— National Military Command Center

NMR— Non-Mission Ready

NOTAM— Notice to Airmen

NSA— National Security Agency

OCF— Operational Check Flight

OCONUS— Outside the CONUS

OCS— Obstacle Clearance Surface

OEI— One Engine Inoperative

OI— Open Item

OME— Operational Mission Evaluation

ONC— Operational Navigation Chart

OPC— Oceanic Plotting Chart

OPCON— Operational Control

OPLAN— Operations Plan

OPORD— Operations Order

OPR— Office of Primary Responsibility

ORM— Operational Risk Management

OSA— Operational Support Airlift

OSD— Office of the Secretary of Defense

OST— Off-Station Trainer

OWS— Operational Weather Squadron

PA— Public Address

PAG— Presidential Airlift Group

PAR— Precision Approach Radar

PDA— Personal Digital Assistant

PED— Portable Electronic Device

PF— Pilot Flying

PFPS— Portable Flight Planning System

PIC— Pilot in Command

PL— Protection Level

PM— Pilot Monitoring

PMC— Partial Mission-Capable

PMCR— Post Mission Crew Rest

PMSV— Pilot to Meteorologist Service

POC— Point of Contact

POL— Petroleum, Oil and Lubricants

PRP— Personnel Reliability Program

QRC— Quick Reaction Checklist

RA— Resolution Advisory

RAIM— Receiver Autonomous Integrity Monitoring

RCR— Runway Condition Reading

RNAV— Area Navigation

RNP— Required Navigation Performance

ROC— Required Obstacle Clearance

RON— Remain Overnight

RSC— Runway Surface Condition

RTRB— Realistic Training Review Board

RVSM— Reduced Vertical Separation Minimum

SAAM— Special Assignment Airlift Mission

SAM— Special Air Mission

SATCOM— Satellite Communication

SDF— Simplified Directional Facility

SEB— Stan/Eval Board

SELCAL— Selective Calling

SF— Standard Form

SID— Standard Instrument Departure

SIF— Selective Identification Feature

SIGMET— Significant Meteorological Information

SIPR— Secret Internet Protocol Router

SMGCS— Surface Movement Guidance and Control System

SOC— Squadron Operations Center

SPINS— Special Instructions

SPR— Single Point Refueling

STAR— Standard Terminal Arrival Route

TA— Traffic Advisory

TAAD— Tactical Arrival and Departure

TACAN— Tactical Air Navigation

TACC— Tanker/Airlift Control Center

TCAS— Traffic Alert and Collision Avoidance System

TDY— Temporary Duty

TERPS— Terminal Instrument Procedures

TO— Technical Order

TOLD— Takeoff and Landing Data

TPC— Tactical Pilotage Chart

TRB— Tactics Review Board

TWG— Threat Working Group

UIR— Upper Flight Information Region

VFR— Visual Flight Rules

VIP— Very Important Person

VMC— Visual Meteorological Conditions

VNAV— Vertical Navigation

VOR— Very High Frequency Omni-Directional Radio-Range

WEZ— Weapons Engagement Zone

WHCA— White House Communications Agency

WHMO— White House Military Office

Terms: 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.

Advance Notice Message.—A message dispatched when required by the FCG to provide advance notification to interested agencies of mission itinerary and support requirements. It may be combined with a diplomatic clearance request message.

Aeromedical Evacuation Coordination Center (AECC).—A coordination center, within the Joint Air Operations Center, which monitors all activities related to aeromedical evacuation (AE) operations execution. It manages the medical aspects of the AE mission and serves as the net control station for AE communications. It coordinates medical requirements with airlift capability, assigns medical missions to the appropriate AE elements, and monitors patient movement activities.

Aircrew Threat Advisory.—An intelligence message containing information about a situation which may pose a direct threat to MAF aircrews.

Air Force Satellite Communication (AFSATCOM).—Satellite communications system capable of 75 bits per second (BPS) record message traffic.

Air Force Component Commander (AFCC).—In a unified, sub-unified, or joint task force command, the Air Force commander charged with the overall conduct of Air Force air operations. Also referred to as commander, Air Force forces (COMAFFOR).

Aircraft Security NCO (ASNCO).—Security Forces personnel assigned as integral members of SAM aircrews to protect Presidential, Presidential Support, and SDSAM aircraft and associated personnel and equipment. See chapter 15 of this AFI for an amplified explanation.

Airlift.—Aircraft is considered to be performing airlift when manifested passengers or cargo are carried.

Air Mobility Control Center (AMCC).—Provides global coordination of tanker and airlift for AMC and operationally reports to the TACC. Functions as the AMC agency that manages and directs ground support activities and controls aircraft and aircrews operating AMC strategic missions through overseas locations.

Air Mobility Element.—(DoD) The air mobility element is an extension of the Air Mobility Command Tanker Airlift Control Center deployed to a theater when requested by the geographic combatant commander. It coordinates strategic airlift operations with the theater airlift management system and collocates with the air operations center whenever possible (also called AME).

Air Mobility Division (AMD).—Provides global coordination of tanker and airlift for USAFE and PACAF MAFs. Functions as the agency that manages and directs air and ground support activities and controls aircraft and aircrews operating USAFE/PACAF strategic missions through overseas locations.

Air Reserve Component (ARC).—Refers to Air National Guard and AFRC forces, both Associate and Unit Equipped.

Antarctic Flight.—Flight conducted south of 56 degrees south latitude.

Arctic Flight.—Flight conducted between 15 degrees and 180 degrees west longitude (exclusive of Iceland) north of 50 degrees north latitude between 1 October and 15 April. Transoceanic flights are excluded.

Arrival Time.—The block-in time, rather than the landing time.

Air Route Traffic Control Center (ARTCC).—The principal facility exercising en route control of aircraft operating under instrument flight rules within its area of jurisdiction. Approximately 26 such centers cover the United States and its possessions. Each has a communication capability to adjacent centers.

Air Traffic Control (ATC).—A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic.

Alert Aircraft/Crew.—A designated aircraft and crew capable of launching on a mission within a predetermined period of time beginning with launch notification from C2.

Allowable Cabin Load (ACL).—The maximum payload which can be carried on a mission. It is the difference between the zero fuel weight limit and the aircraft operating weight.

Augmented Crew.—Basic aircrew supplemented by additional qualified aircrew members to permit in-flight rest periods as defined in chapter 3 of this AFI.

Avisource.—Interactive computer database system used by USAF/CVAM to schedule and manage VIP Missions.

BAM.—Bird Avoidance Model at website **http://www.usahas.com**

Bird Aircraft Strike Hazard (BASH).—An Air Force program designed to reduce the risk of bird strikes.

Bird Condition Low.—No significant bird activity which would present a probable hazard to flying operations. No operating restrictions.

Bird Condition Moderate.—Concentrations of 5 to 15 large birds (waterfowl, raptors, gulls, etc.) or 15 to 30 small birds (terns, swallows, etc.) observable in locations that represent a probable hazard to flying operations.

Bird Condition Severe.—Concentrations of more than 15 large birds (waterfowl, raptors, gulls, etc.) or more than 30 small birds (terns, swallows, etc.) observable in locations that represent a probable hazard to flying operations.

Block Time.—Time determined by the scheduling agency responsible for mission accomplishment for the aircraft to arrive at (block in) or depart from (block out) the parking spot. "Block Time" may be defined as the time the door will open on arrival.

BLUE BARK.—US military personnel, US citizen civilian employees of the DoD, and the dependents of both categories who travel in connection with the death of an immediate family member. It also applies to designated escorts for dependents of deceased military members. Furthermore, the term is used to designate the personal 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.

Class II Airspace.—Long-range navigation beyond the limits of the operational service volume of ground-based NAVAIDS (formerly known as a Category I route).

CLOSE HOLD.—USAF term assigned to all aspects of a DV airlift when destination, passengers' names, or other mission details are restricted from general release.

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.

Commander Support Missions (CSM).—DV Missions supporting Combatant, Unified and Sub-unified Commanders in 4 star positions. CSMs are authorized CVAM/AMD support.

Command and Control (C2).—The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. C2 functions are performed through an arrangement of personnel, equipment, communications,

facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.

Command and Control Center (C2 center).—Each C2 center provides supervision, guidance, and control within its assigned area of responsibility. For the purpose of this AFI, C2 centers including operations centers, CPs, air mobility elements, tanker airlift control elements (TALCE), air mobility control centers, and tanker task forces.

Command and Control Information Processing System (C2IPS).—Computer-based information transmission and information handling for C2 functions associated with the Director of Mobility Forces (DIRMOBFOR), AME fixed units, and TALCE. Interfaces to and automatically updates the Global Decision Support System (GDSS).

Communications Systems Operator (CSO).—Flight crewmember responsible for inspecting, operating, and maintaining all communications and electronic equipment aboard the aircraft. See chapter 14 of this AFI for an amplified explanation.

CONFERENCE SKYHOOK.—Communication conference available to help aircrews solve in-flight problems that require additional expertise. Contact C2 centers to establish links with unit Stan/Eval, Maintenance, Contract Logistics Support and Systems Programs Technicians.

Contingency Mission.—Mission operated in direct support of an OPORD, OPLAN, disaster, or emergency.

Critical Leg.—The segment of a mission that determines the ACL which may be carried over that route.

Critical Phase Of Flight.—Takeoff, air refueling, formation below minimum safe altitude, low level, airdrop, approach, and landing.

CVAM (Special Air Missions Office).—Agency within the office of the USAF Vice Chief of Staff responsible for scheduling and committing all Air Force airlift required to support the White House or any other executive branch of the government. The single coordinating agent for AMC and AMC-gained VIP Aircraft fleet and schedules AMC and AMC-gained VIP Missions.

Deadhead Time.—Duty time for crewmembers in passenger status, positioning or de-positioning for a mission or mission support function.

Departure Time.—The block-out time, rather than the takeoff time.

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.

Diplomatic Clearance Request Message.—A message dispatched to request diplomatic clearance for over -flight and/or transit of foreign territories. Message content and addresses are specified in the FCG. This message is usually combined with the advance notice message.

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).

Director of Mobility Forces (DIRMOBFOR).—Normally a senior officer who is familiar with the area of responsibility or joint operations area and possesses an extensive background in air mobility operations. When established, the director of mobility forces serves as the designated agent for all air mobility issues in the area of responsibility or joint operations area, and for other duties as directed. The director of mobility forces exercises coordinating authority between the air operations center (or appropriate theater command and control node), the tanker airlift control center, the air mobility operations control center (when established and when supporting subordinate command objectives), and the joint movement center, in order to expedite the resolution of air mobility issues. The director of mobility forces may be sourced from the theater's organizations or US Transportation Command. Additionally, the director of mobility forces, when designated, will ensure the effective integration of intertheater and intratheater air mobility operations, and facilitate the conduct of intratheater air mobility operations. Also called DIRMOBFOR. (JP 3-30)

Dispatch.—Dispatch is defined as the start of takeoff roll.

Distinguished Visitor (DV).—Passengers, including those of friendly nations, of colonel rank and higher, or equivalent status including 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).

Distinguished Visitor/HFGCS Message (DV Message).—A classified message dispatched with the DVs name/status code and mission number. This message also establishes HFGCS priority and requests HFGCS network and support. This message is usually sent with the advance notice and diplomatic clearance request message.

Diverse Departure.—The airfield has been assessed for departure by TERPS personnel and no penetration of the obstacle surfaces exists. An aircraft may depart the field, climb to 400 feet above the departure end of the runway elevation, turn in any direction, and if a minimum climb gradient of 200'/NM is maintained, be assured of obstacle clearance. This is normally indicated on DoD/NOAA publications by the absence of any published departure procedures.

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 PIC to be his or her own ATC agency and to separate his or her aircraft from all other air traffic (See *FLIP GP*, section 7).

Enlisted Aircrew Coordinator (EAC).—The appointed NCO crewmember (not necessarily the ranking) tasked with coordinating all enlisted aircrew issues and concerns in regards to a particular mission. Enlisted crewmembers should attempt to resolve most issues and concerns with the EAC who in turn reports to the PIC.

Equal Time Point (ETP).—The point along a route at which an aircraft may either proceed to the destination/first suitable airport, or return to the departure base/last suitable airport in the same amount of time. It may be based on all engines operating or with one engine inoperative.

Estimated Time of Arrival (ETA).—Same as estimated block-in time. Landing time is different than ETA.

Estimated Time of Block-in/Block-out (ETB).—Same as estimated time aircraft door will open for arrival or close for departure.

Estimated Time of Departure (ETD).—Same as Estimated Time of Block-out. Takeoff time is different than departure time.

Estimated Time In Commission (ETIC).—Estimated time required to complete required maintenance.

Extended Range Operations (EROPS).—For twin engine aircraft, those flights conducted over a route containing a point further than 60 minutes flying time at the one-engine inoperative cruise speed (under standard conditions in still air) from a suitable en route alternate.

Familiar Field.—An airport in the local flying area at which unit assigned aircraft routinely perform transition training. Each operations group commander will designate familiar fields within their local flying area. See local supplement for approved fields and limitations.

First Pilots.—First pilots are highly experienced pilots who are qualified IAW volumes 1 and 2 of this instruction to taxi, takeoff, and land the aircraft from the left seat under the supervision of a qualified VIP AC.

Flight Attendants (FA).—Flight crewmember to provide cabin service, instruct passengers in the use of emergency equipment, direct and control passengers under emergency conditions, and maintain cabin cleanliness. See chapter 13 of this AFI for an amplified explanation.

Global Decision Support System (GDSS).—MAF's primary execution C2 system. GDSS is used to manage the execution of MAF airlift and tanker missions.

Global Patient Movement Requirements Center.—A joint activity reporting directly to the Commander in Chief, US Transportation Command, the DoD single manager for the regulation of movement of uniformed services patients. The Global Patient Movement Requirements Center authorizes transfers to medical treatment facilities of the Military Departments or the Department of Veterans Affairs and coordinates inter theater and CONUS patient movement requirements with the appropriate transportation component commands of US Transportation Command.

Ground Time.—Interval between engine shut down and next takeoff time. For VIP Missions this normally is defined as the interval between VIP door open on arrival and VIP door close on departure.

Hazardous Cargo or Materials.—Articles or substances that are capable of posing significant risk to health, safety, or property when transported by air. These articles or substances are classified as explosive (class 1), compressed gas (class 2), flammable liquid (class 3), flammable solid (class 4), oxidizer and organic peroxide (class 5), poison and infectious substances (class 6), radioactive material (class 7), corrosive material (class 8), or miscellaneous dangerous goods (class 9). Classes may be subdivided into divisions to further identify hazard, i.e., 1.1, 2.3, 6.1, etc.

High Frequency Global Communications System (HFGCS).—Worldwide high frequency (HF) network tied together with high quality, dedicated, intersite circuits to provide worldwide communication 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 at various locations; therefore, the airborne operator is always in contact with the operator at Andrews. HFGCS service is only provided for certain missions.

Hotel Reservation Message (HOTRES).—A message dispatched to request crew accommodations and transportation per the scheduled mission itinerary. This message is usually combined with the advance notice message and diplomatic clearance request message.

Instructor Supervision.—Supervision by an instructor of like specialty. For critical phases of flight, the instructor must occupy one of the seats or stations, with immediate access to the controls.

Itinerary Change Message (Itin Change).—A message dispatched to change the original itinerary, due to changes in the scheduled mission, published in the original advance notice message or diplomatic clearance message.

L-Band SATCOM.—600 BPS SATCOM system contracted through the International Maritime Satellite Organization (INMARSAT), used primarily for C2. The system consists of a satellite transceiver, a laptop computer, and a printer.

Landing Status Codes:—When possible, identify system as Mission Essential (ME) or Mission Contributing (MC).

Code 0: Ground Abort

Code 1: Aircraft is Mission Capable with no additional discrepancies

Code 2: Aircraft or system has major discrepancies, but is capable of further mission assignment within normal turnaround times.

Code 3: Aircraft or system has major discrepancies in mission essential equipment that may require extensive repair or replacement prior to further mission assignment. The discrepancy may not affect safety—of-flight and the aircraft may be Not Mission Capable (NMC) flyable.

Code 4: Aircraft or system has suspected or known radiological, chemical, or biological contamination.

Code 5: Aircraft or system has suspected or known battle damage.

Leg Time.—Time between door closed on departure to door open on arrival.

Local Training Mission.—A mission scheduled to originate and terminate at home station, generated for training or evaluation, and executed at the local level.

Meal.—Any service that involves preparation and/or cooking of cold and/or hot food items. Serving pre-packaged food and/or drink items (such as pretzels, chips, or sodas) does not constitute a meal.

Mission.—The task, together with the purpose, that clearly indicated the action to be taken and the reason therefor. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task. The dispatching of one or more aircraft to accomplish one particular task.

Mission Advisory.—Message dispatched by C2 agencies, liaison officers, or PICs advising all interested agencies of any changes in status affecting the mission.

Mobility Air Force (MAF).—Forces assigned to mobility aircraft or MAJCOMs with operational or tactical control of mobility aircraft.

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

Operational Missions.—Missions executed at or above MAJCOM C2 level. Operational missions termed "Close Watch" include CORONET missions and AFI 11-221, *Air Refueling Management (KC-10 and KC-135)*, priority 1, 2, and 3 missions tasked by the MAJCOM C2. Other operational missions such as deployment, re-deployment, reconnaissance operations, operational readiness inspections (ORI), channel or SAAM, and JA/ATT missions may be designated "Close Watch" as necessary.

Opportune Airlift.—Transportation of personnel, cargo, or both aboard aircraft with no expenditure of additional flying hours to support the airlift.

Originating Station.—Base from which an aircraft starts on an assigned mission. May or may not be the home station of the aircraft.

Operational Risk Management (ORM).—ORM is a logic based, common sense approach to making calculated decisions on human, material, and environmental factors before, during, and after all operations. USAF policy on ORM is contained in AFPD 90-9. PICs will accomplish ORM worksheets IAW MAJCOM and local guidance as part of preflight activities (see paragraph 6.24. of this AFI).

Operational Support Airlift Mission (OSA).—Movements of high-priority passengers and cargo with time, place, or mission-sensitive requirements.

Overwater Flight.—Any flight that exceeds power off gliding distance from land.

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. PICs 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 PIC for not complying with permit to proceed procedures).

Point of No Return.—A point along an aircraft track beyond which its endurance will not permit return to its own or some other associated base on its own fuel supply.

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.

Positioning and De- positioning Missions.—Positioning missions are performed to relocate aircraft for the purpose of conducting a mission. De-positioning missions are made to return aircraft from bases at which missions have terminated.

Presidential Aircraft.—Any aircraft used to transport the President of the United States, or designated as a Presidential Aircraft by White House Military Office through the PAG. Presidential Aircraft require continuous security protection at home station, en route operating locations, and contract maintenance facilities. Other aircraft may be temporarily upgraded to Presidential aircraft security status for a particular mission.

Presidential Airlift Mission.—A category of operational missions involving or supporting transport of the President of the United States. Does not include training missions.

Quick Stop.—Set of procedures designed to expedite the movement of selected missions by reducing ground times at en route or turnaround stations.

Ramp Coordinator.—Designated representative of the C2 center whose primary duty is the coordination of ground handling activities on the ramp during large scale operations.

Ramp Freeze.—Term used at Andrews AFB to denote a set of security procedures within a fixed geographical area on the flight line to ensure the safety of high-level DVs. Generally, all vehicular traffic is prohibited in a designated area except for security police and personnel and vehicles directly supporting the departing or arriving DV. Refer to AAFBR 900-6 for further information.

RAVEN—. Air Force Security personnel specially trained for aircraft protection.

VIP Delay.—A VIP delay occurs when the DV and accompanying party is ready for departure and the DV's departure is delayed due to maintenance or operational reasons.

Scheduled Takeoff Time.—That time established in the mission itinerary for departure.

Scheduled Return Date (SRD).—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 AMCgained aircrews (except those on standby at home station) will have an SRD established on their flight orders.

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 Air Mission (SAM).—Missions tasked and scheduled at the direction of USAF/CVAM.

Special Assignment Airlift Mission (SAAM).—Airlift requirements for special pick -up or delivery by AMC at points other than established AMC routes, and which require special consideration because of the number of passengers involved, the weight or size of the cargo, the urgency or sensitivity of movement, or other special factors. A SAAM can be flown by any appropriate unit and is not the same as a SAM mission.

Specifically Designated Special Air Mission (SDSAM).—Any mission specifically identified by USAF/CVAM as requiring special security procedures.

Squadron.—Refers to VIP fixed -wing aircraft squadrons within the MAF.

Stations Time.—Normally, 30 minutes prior to departure time. Aircrews will have completed their pre -flight duties/appropriate checklists, and be at their crew positions.

618 th TACC.—The Air Mobility Command direct reporting unit responsible for tasking and controlling operational missions for all activities involving forces supporting US Transportation Command's global air mobility mission. The Tanker Airlift Control Center is comprised of the following functions: current operations, C2, logistics operations, aerial port operations, aeromedical evacuation, flight planning, diplomatic clearances, weather, and intelligence.

Tanker Airlift Control Element (TALCE).—Team of qualified Air Force personnel established to control, coordinate, and function as an Air Force tanker and airlift C2 facility at a base where normal AMC C2 facilities are not established or require augmentation. TALCEs support and control contingency operations on both a planned and no-notice basis.

Tanker Task Force (TTF).—Force of tanker aircraft assembled and tasked to perform a specific function.

Theater Patient Movement Requirements Center (TPMRC).—The TPMRC is responsible for theater wide patient movement (e.g., medical regulating and AE scheduling), and coordinates with theater MTFs to allocate the proper treatment assets required to support its role. The primary role of the TPMRC is to devise theater plans and schedules and then monitor their execution in concert with the GPMRC. The TPMRC is responsible to the Combatant Commander through the Combatant Command Surgeon. The TPMRC is also responsible for all aspect of intra-theater patient movement management. A TPMRC provides C2 for patient movement management operations in its theater of operations, as directed by its Combatant Commander's operational policy, and in coordination with USTRANSCOM, acting as a supporting combatant command, responsible for inter-theater and CONUS patient movement.

Time Out.—Common assertive statement used to voice crewmember concern when safety may be jeopardized.

Training Mission.—Mission executed at the wing level or below for the primary purpose of aircrew training for upgrade or proficiency. Synonymous with non -operational mission. Does not include operational missions as defined in this AFI.

Unescorted Entry List.—Computerized lists of personnel authorized unescorted entry to Presidential, Presidential Support, and certain other OSA/VIPSAM missions to perform their duties. Unescorted Entry Lists are also categorized to indicate individuals authorized to escort personnel onto aircraft, and individuals authorized to grant escorted entry to the aircraft. Unescorted Entry List categories are published in AFI 31-101.

Unit Move.—Unit relocation in support of a contingency or exercise deployment/redeployment. These moves are made to desired areas of operation or to designated locations, and are made IAW a troop movement schedule.

Validation Authority.—The agency or office tasked to review and approve/disapprove a proposed airlift requirement.

VIP Aircraft.—Aircraft tasked to perform a VIP mission.

VIP Mission.—A category of operational mission that includes Special Airlift Missions (SAM), Commander Support Missions (CSM), Distinguished Visitor Guard (DVG) missions and Distinguished Visitor (DV) missions to include Presidential Airlift Missions tasked through the White House Military Office (WHMO), and DV missions tasked through the Office of Assistant Vice Chief of Staff (HQ USAF/CVAM), Theater Air Mobility Divisions (AMD) and the Joint Operational Support Airlift Center (JOSAC). Does not include training missions.

White House Communications Agency (WHCA).—A joint service field unit of the Defense Information Service Agency (DISA) which provides communications support for the White House.

Zero Fuel Weight (Actual).—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.

Zero Fuel Weight (Maximum). The weight expressed in pounds where an addition to the aircraft gross weight can be made only by adding fuel in the tanks. This value is called "Limiting Wing Fuel" on the DD Form 365—4, Weight and Balance Clearance Form.

Attachment 2 (Added)

OST FLIGHT PROFILE

Figure A2.1. OST Flight Profile.

Example of a Pre-Coordinated OST Flight Profile

Day	Departure ICAO	T/O Time	Arrival ICAO	Arrival Time	Transition Time	Land Time	NOTES
1	KADW	0600L	EINN	1755L	0+00	1755L (1855L DST)	1,2
2	EINN	1300L (1400L DST)	CYQX	1500L (1600L DST)	1+00	1600L (1700L DST)	1, 3, 4
2	CYQX	1730L (1830L DST)	KADW	1905L (2005L DST)	0+00	1905L (2005L DST)	1

NOTES:

1. Arrival/land time is approximate. Compute accurate time based on actual flight planning conditions and coordinate with 89 OG/OGO and destination airport.
2. C-20s may add 45 minute gas stop prior to coast-out. Preferred airfield for gas stop is CYQX.
3. C-20/C-37 plan for 45 minute ground stop/refuel. C-32/C-40 plan for 1+30 ground stop/refuel.
4. CYQX can be substituted with CYYR, CYYT, CYJT, CYHZ or KBGR without additional approval. All are currently valid divert fields and EROPS alternates.

Attachment 3 (Added)

89 AW FORM 87, VC-25A PERFORMANCE DATA

A3.1. 89 AW Form 87 (Example).

VC-25A PERFORMANCE DATA									19-Mar-10	
	MISSION NO. 8523		A/C TYPE VC-25A		28000		DRAFT NO.	1 (Ver 4)		
DEPARTURE POINT	Andrews AFB	Raleigh/Durham	Willow Grove							
ICAO IDENTIFIER	KADW	KRDU	KNXX							
FIELD ELEVATION	280	435	358							
RWY. LENGTH (TORA-200')	9,100	9,800	7,802							
TEMPERATURE	10.5	12.7	13.8							
AVERAGE TEMP DEVIATION	0	0	0							
PARAMETERS - FL	250	250	250							
FLYING TIME [ETE]	0+40	0+40	0+25							
CAT I FLYING TIME (Hours)	0	0	0							
ALTERNATE DISTANCE	200	120	30							
ALTERNATE AIRPORT / ICAO	Andrews/KADW	Andrews/KADW	Dulles/KIAD							
MAX TAKEOFF WEIGHT [DRY]	794.2	812.0	745.4							
OPERATING WT [# CREW] 27	454.8	454.8	454.8							
PAX WEIGHT [# PAX]										
ZERO FUEL WEIGHT	454.8	454.8	454.8							
ENROUTE FUEL	18.2	17.9	11.2							
RESERVE FUEL	0.0	0.0	0.0							
ALTERNATE FUEL	14.0	10.0	5.0							
HOLDING FUEL	11.0	11.0	11.0							
TAXI/T.O./LANDING FUEL	2.5	2.5	2.5							
REQUIRED FUEL	45.6	41.4	29.7							
PLANNED FUEL	120.0	99.3	100.0							
PLANNED RAMP WEIGHT	574.8	554.1	554.8							
BURN OFF [INCL. TAXI]	20.7	20.4	13.7							
ENDURANCE	4+22	3+37	3+39							
DESTINATION	Raleigh/Durham	Willow Grove	Andrews AFB							
LANDING WEIGHT	554.1	533.7	541.1							
FUEL REMAINING	99.3	78.9	86.3							
ONLOAD	0.0	21.1	MC							
Fuel Requested with CVAM:	**0**	**30**								

Attachment 4 (Added)

AMC FORM 25 (89 AW/PAG OVERPRINT), NAVIGATOR FLIGHT PLAN AND RECORD

A4.1. Example AMC Form 25.

FLIGHT PLAN AND RECORD

NAVIGATOR	AIRCRAFT COMMANDER	FROM	TO	DATE
Pavelko			KADW	EGLL 10-May-03

Zero Fuel Wt.(ZFW)	29000		3600	
Zero (incl. In ZFW)	See Note 1	N/A	JETPLAN	
Planned	Ramp-2.0	5	1006NWS	
ZFW + Ramp	3-49			
	6+20		162.0	
2. EN ROUTE RESERVE				
3. EN ROUTE TO OH/BDP PLUS RESERVE	0+37		15.1	
4. ALTERNATE/MISSED APPROACH AIR DIST 338NM	6+57		177.1	
5. HOLDING AT EGUN	0+55		19.7	
6. DESCENT, APPROACH/ LANDING	0+45		11.0	
7A. IDENTIFIED EXTRA	0+15		2.5	
7B. STORED FUEL				
8. TOTAL (3+4+ 5+6+7A) TAKEOFF/FLAPS UP				
9. TAXI AND ACCELERATION	8+52		210.3	
10. REQUIRED RAMP (8 + 9)			0.0	
11. ACTUAL RAMP			212.3	
12. UNIDENTIFIED EXTRA			260.0	
13. REQUIRED OVER DEST/BDP (4 + 5 + 6)				
LOWEST ACC CONSTANT FL		BURN OFF (1 + 6)	47.7	
		LANDING FUEL	33.2	
250 (See Note 2)	11+00		164.5	
AMC FORM 25 89 AW/PAG OVERPRINT			93.5	

Note 1: Subtract climb fuel (pg. A4-12) from takeoff weight. Enter chart on pg. A3-29 using the Optimum Altitude line

Block 1: Enroute to OH/BDP: Use block to block time minus 15 minutes (day of flight enroute time minus 15 minutes)
Block 2: Enroute Reserve: 10% of the time for the Category I portion of the route, not to exceed 1 hour.
Block 3: Enroute to OH/BDP Plus Reserve: Total of Blocks 1 & 2.
Block 4: Alternate/Missed Approach Air Dist: Time and fuel required to fly to an alternate. Missed approach fuel is included only if the weather at destination is below published ceiling and/or visibility minimums. If two alternates are required, plan to the most distant alternate.
Block 5: Holding at _____: + 45 or 1+15, Fuel from appropriate holding chart (See AFI 11-2SAM v3, Chapter 6). Enter with ZFW at alternate, plus 2500 lbs for VC-25.
Block 6: Descent, Approach/Landing: + 15 minutes and 2.5 fuel
Block 7A: Identified Extra: See paragraph 6.22.5.3.2 for examples when to add identified extra fuel, calculated at 500 lbs per minute for the VC-25.
Block 7B: Stored Fuel: Fuel stored for subsequent legs when refueling is not feasible at destination.
Block 8: Total: Total of blocks 3 + 4 + 5 + 6 + 7A + 7B.
Block 9: Taxi and acceleration: 0.0 0+15 taxi time and 1,500 lbs. included in the en route fuel charts
Block 10: Required Ramp: Add Blocks 8 and 9.
Block 11: Actual Ramp: Actual fuel in the tanks.
Block 12: Unidentified Extra: Block 11 minus Block 10.
Block 13: Required over Dest/BDP: Add Blocks 4 + 5 + 6.
Burn Off: Add blocks 1 and 6. Do not include reserve fuel!

Note chart conv doesn't, go to next hemispheric altitude available and make the same comparison. Your lowest acceptable constant FL is where the gas you have available will allow you to complete the flight based on your block 3 time. Can not be lower than FL250.

SIGNATIURE OF NAVIGATOR

CLEARANCE

Time	Event	Freq	NAV AID DATA STATION	TIME	READING	LATITUDE	CORR RD LONGITUDE	REMARKS TH	TAS	W/V
1830	Altimeter check									
1845	Coast-out fix (YQX 230/100)		YQX	1845	N47-23	W055-34	100	450	270/050
1900	Wx Deviation		GPS1		N47-21	W055-36			
1917	Resumed on course		INS 1		N47-22	W055-35			
			FMS		N47-21	W055-35			
	Gross navigation check		GPS1	2350	N53-40	W11-20			
	(Coast in position check)		INS1		N35-39	W11-19			
			FMS		N53-40	W11-21			

	BLOCKS	MARKER	ADJ MARKER
BLOCK TIME DATA			
BLOCK OUT			
TAKE OFF			
DEPARTURE			
ETA			

DEVIATION

TIME	TH (INS)	VAR	MH	#1 (DORM)	DEV	#2 (EHSI)	DEV	STBY	DEV
1800	93	10 W	103	101	-2	102	-1	104	1

Fuel Management Log: Block Time

TIME/WAYPOINT	ALTITUDE	TEMP DEVIATION	MACH NUMBER	FUEL REMAINING	FPL FUEL REMAING	DIFFERENCE (+/-)	FPL LANDING FUEL	CALC LANDING FUEL	FMS LANDING FUEL	DELTA
1800/BEBOP	FL310	7	0.86	68000	66000	2000	28000	30000	29500	500

INSTRUCTIONS FOR COMPLETING THE PREFLIGHT FUEL PLANNING SECTION OF THE 89AW FORM 25

Operating Wt. -Taken from Aircraft Weights Handout, includes aircraft basic weight, aircrew, passengers and equipment.

Acft Number - Last five digits of aircraft tail number

Mission Number - From mission set up sheet (Avisource Sheet).

Cargo/Pax Wt. - included in operating weight.

Highest ACC FL – See note 1 on Attachment 4.

LO Temp Dev. - N/A

Flight Plan Type - Enter JETPLAN or MANUAL
Ramp Fuel - Expected or known ramp fuel load for this leg.

Takeoff Weight - VC-25A Ramp wt. minus 2.0.

Enroute Temp Dev - Expected avg. temp deviation from CFF or weather data.

Winds Valid - Valid time of CFP or valid time of wind chart used on manual flight plan.

Ramp Wt. - Total of operating weight and ramp fuel weights.

Page - Page number used in fuel computations or chart reference.

Enroute to OH/BDP - Use blocks to blocks minus 15 minutes.

Enroute Reserve - 10% of the time for the CLASS II portion of the route, not to exceed 1 hour.

Enroute to OH/BDP Plus Reserve - Total of Blocks 1 and 2.

Alternate/Missed Approach Air Dist - Time and fuel required to fly to the alternate. Missed approach fuel is included only if the weather at destination is below published ceiling and/or visibility minimums. If two alternates are required, plan to the most distant.

Holding at _____ - +45 or 1+15 (See AFI11-2VIPV3, Chap 6 and Chap 17). Fuel from appropriate holding chart. Enter with GW at alternate, plus 2500 lbs. for VC-25A

Descent, Approach/Landing - +15 and 2500lbs (VC-25A)

Identified Extra - See paragraph 17.8.3. for examples of when to add identified extra fuel.

Stored Fuel – Fuel stored for subsequent legs when refueling is not feasible at destination.

Total - Self-explanatory.

Taxi and acceleration - 0.0 (VC-25A) included in enroute fuel charts.

Required Ramp - Add blocks 8 and 9.

Unidentified Extra - Block 11 minus Block 10.

Required over Dest/BDP - Add Blocks 4, 5, and 6.

Lowest ACC Constant FL - Lowest constant altitude acceptable with the actual fuel load. Unidentified extra fuel is the only fuel available to compute a lower FL. FL 250 is the lowest entry in this block. See note 2 of Attachment 4.

Endurance - Based on fuel available at takeoff using flight planned altitude and aircraft GW at takeoff (flaps up GW).

Burn Off - The amount of fuel planned to be burned on the mission segment. Includes: (1) Enroute and (6) Descent Approach/Landing.

Landing Fuel - Actual ramp fuel minus Burn off.

Attachment 5 (Added)

89 AW LOCAL TRAINING AIRFIELDS

A5.1. Local Training Airfields.

AIRFIELD NAME	MISC AIRFIELD NOTES (SEE IFR SUPP, ASRR, FLIP, ETC. FOR ADDITIONAL INFO)
ANDREWS AFB MD (ADW)	• TPA 1,500' MSL • ATIS 301-981-4884 • Rwy 19R/1L 9775' Rwy 19L/1R 9300'
ARNOLD PALMER RGNL / LATROBE PA (LBE)	• AWOS 724-537-0671 • Tower 724-539-3707 • Rwy 5/23 8223' Rwy 3/21 too short
ATLANTIC CITY INTL NJ (ACY)	• ATIS 609-485-4444 • Tower 609-485-3940 • TPA 2,000' MSL • Rwy 13/31 10000' Rwy 4/22 6144'
BALTIMORE–WASHINGTON INTL THURGOOD MARSHALL ARPT MD (BWI)	• ASOS 410-691-1278 • Practice approaches during non-peak: before 0730, 0900-1120, 1250-1445, 1620-1840, and after 2015L • No circling except flight evals on alert aircraft
BLUE GRASS AIRPORT KY (LEX)	• ASOS 859-281-5700 • Tower 859-254-1292 • Rwy 4/22 7003' Rwy 8/26 too short • Call tower prior to filing
CHARLESTON AFB / INTL ARPT SC (CHS)	• ASOS 843-554-9862 • Consider Parking at Civilian Side • Base Ops DSN 673-3024 • Comm 843-963-3024 • TPA 1700' MSL • Rwy 15/33 9001' Rwy 3/21 7004' • Beware of migratory bird activity
CHARLOTTESVILLE – ALBEMARLE ARPT VA (CHO)	• ASOS 434-973-5024 • Tower 434-973-4458 • Rwy 3/21 6001' • Trouble T

DOVER AFB DE (DOV)	• Base Ops DSN 445-4192 • WX DSN 445-4175/76 • COMM (302) 677 4175/76 • TPA 1,800' MSL • Rwy 14/32 12903' Rwy 1/19 9602' • No practice approaches between 0300-1200Z++ (0400-1200Z++ during Bash Phase II) • Call to Check Bird Status • Heavy bird activity during migratory periods • Avoid residential areas, beach areas, and farm complexes by 1 mile • No touch and go landings with Jumbos (incl C-32) in VFR pattern (11-2VIPV3)
EASTERN WEST VIRGINIA REGIONAL / SHEPPARD FIELD WV (MRB)	• ASOS 304-264-0988 • Mgr 304-263-2106 • TPA 1600' MSL • Rwy 8/26 7000' • Rwy 26 departure-turn left 5 degrees ASAP • Avoid peak hours: 0730-0930, 1100-1300,1430-1900L (for approach sector) • Call Potomac at 540-349-7542 for peak hour approval • ASR/PAR available on ANG drill weekend • Trouble T
EASTON / NEWNAM FIELD MD (ESN)	• Uncontrolled • AWOS 410-822-2817 • Mgr 410- 770-8055 • Rwy 4/22 5500' Rwy 15/33 too short • TPA 1600' MSL • Daylight Only
FREDERICK MUNICIPAL ARPT MD (FDK)	• Uncontrolled • AWOS 301-694-1457 • Mgr 301-846-2201 • Rwy 5/23 5220' Rwy 12/30 too short • TPA 1,500 • TFR Activity common-check NOTAMs • Daylight only • Trouble-T
HAGERSTOWN REGNL ARPT – RICHARD A. HENSON FIELD MD (HGR)	• ASOS 301-745-3497 • Tower 240-313-2039/2769 • Rwy 9/27 7000' Rwy 2/20 too short • Several surface areas restricted for weight

HARRISBURG INTL PA (MDT)	• ASOS 717-944-1372 • Approach 717-948-3919 • Call prior to departure • Rwy 13/31 10001' • CAUTION Capital City airport has crossing traffic pattern on 3-4 mile final for RWY 13 • TPA 1,800' MSL
JOHN MURTHA / JOHNSTOWN-CAMBRIA COUNTY PA (JST)	• ASOS 814-535-3511 • Tower 814-536-0002 / 5103 • Rwy 15/33 7003' Rwy 5/23 too short • Trouble T • IFR Departure requires VFR to IFR MEA
KINSTON REGNL JETPORT AT STALLINGS FIELD NC (ISO)	• ASOS 252-522-2712 • Tower 252-522-4844 • Rwy 5/23 11500'
LAKEHURST NAES (MAXFIELD FIELD) NJ (NEL)	• DSN 624-2438/4995 • Rwy 6/24 5002' Rwy 15/33 5001' • Rt traffic RWY 15 & 24
LANCASTER AIRPORT PA (LNS)	• ASOS 717-569-8860 • Tower 717-569-0004 • Rwy 08/26 5398' Rwy 13/31 too short • No more than 3 consecutive approaches to a single runway
LANGLEY AFB VA (LFI)	• Base Ops DSN 574-2504 • Comm 757-764-2504 • Do not exceed 1,000' until DER • TPA 1,000' • Rwy 8/26 10000' • Rt traffic Rwy 26, Lft traffic Rwy 8
LEHIGH VALLEY INTL ARPT PA (ABE)	• ASOS 610-266-3579 • Tower 610-264-4530 • Rwy 6/24 7600' Rwy 13/31 5797' • Extremely noise sensitive area • Use on a limited basis • ALL circling and VFR patterns at 1,500' AGL • Expect to maintain RWY heading until 200' feet MSL on all departures including missed approach and touch and go's
LYNCHBURG REGIONAL / PRESTON GLENN FLD VA (LYH)	• Arpt Mgr 434-455-6090 • ASOS 434-239-0025 • Rwy 4/22 7100' Rwy 17/35 Not Authorized • Check WBC

MANASSAS RGNL ARPT / HARRY P. DAVIS FIELD VA (HEF)	• ATIS 703-361-6160 • Tower 703-361-1601 • TPA 1500' MSL • Rwy 16L/34R 5700' Rwy 16R/34L too short • Avoid peak hours: 0730-0930, 1100-1300,1430-1900L (for approach sector) • Call Potomac at 703-471-1628 for peak hour approval • Traffic pattern- Right traffic Rwy 16R & 34R
MARTIN STATE ARPT MD (MTN)	• ASOS 410-682-8848 • Tower- 410-682-8806 • TPA 2000' MSL • Rwy 15/33 6996' • Trouble T climb gradient over 300 ft/nm
MID-OHIO VALLEY RGNL / PAKERSBURG WV (PKB)	• ASOS 304-464-5547 • Mgr 304-464-5113 • Rwy 3/21 6181' • Rwy 10/28 too short
NEWPORT NEWS / WILLIAMSBURG INTL VA (PHF)	• ASOS 757-874-3682 • Tower 757-2962 • Rwy 7/25 8003' Rwy 2/20 6526'
NORFOLK NAS (CHAMBERS FIELD) VA (NGU)	• ATIS for ORF 757-464-7390 • Base Ops DSN 262-3419 • Rwy 10/28 8369' • Right traffic RWY 28
NORTH CENTRAL WEST VIRGINIA ARPT WV (CKB)	• ASOS 304-842-9240 • Tower 304-842-4465 • Rwy 3/21 7000'
PATUXENT RIVER NAS / TRAPNELL FLD MD (NHK)	• WX DSN 565-4555 • Comm 888-745-6899 • AODO DSN 342-3836 • Comm 301-342-3836 • TPA 1000' MSL • Rwy 6/24 11807' Rwy 14/32 9742 • Rwy 2/20 5021' • Watch Displaced Threshold • No practice approaches on Sat before 1500Z++ or Sun before 1700Z++

PHILLIPS AAF MD (APG)	• 0800 -1600L Mon-Fri • Mgr DSN 298-3483/4902 • Comm 410-278-3483/3074 • Rwy 4/22 7997' • Rwy 08/26 &17/35 PCN restricted • Rwy 22 dep turns within 1NM of RWY • Do not over fly reactor 3 NM south • Watch for Birds / Pterodactyls
POPE AFB NC (POB)	• Base Ops DSN 424-6508/6509 • Comm 910-394-6508/6509 • Do not exceed 1,200' until DER • TPA 1,500', • Rwy 5/23 7501' • Rt traffic Rwy 23, Lft traffic Rwy 5
RALEIGH COUNTY MEMORIAL ARPT WV (BKW)	• Uncontrolled • ASOS 304-253-5214 • Mgr 304-255-0476 • Rwy 1/19 6750' Rwy 10/28 5000' • See ASRR for WBC • Trouble T climb gradient > 300 ft/nm • AMC Special PIC Airport
READING RGNL / CARL A SPAATZ FIELD PA (RDG)	• ASOS 610-372-9863 • Tower 610-374-8039 • Rwy 13/31 6350' Rwy 18/36 5151' • Trouble T • IFR Departure requires VFR to IFR MEA
RICHMOND INTL VA (RIC)	• ASOS 804-236-1091 • Tower 804-222-7463 • TPA 1,700' MSL • Rwy 16/34 9003' Rwy 2/20 6607' • Rwy 7/25 5326' • Rt traffic Rwy 34
RICKENBACKER INTL AIRPORT, OH (LCK)	• Base Ops DSN 696-4595 • Comm 614-492-4595 • TPA 1900' MSL • Rwy 5R/23L 12102' Rwy 5L/23R 11902'
ROANOKE REGIONAL / WOODRUM FIELD VA (ROA)	• Arpt Mgr 540 362-1999 • ASOS 540-265-0680 • Rwy 15/33 Not Authorized at Night or During IFR Due to Terrain • Rwy 6/24 6800'

SALISBURY-OCEAN CITY / WICOMICO REGIONAL MD (SBY)	• ASOS 410-341-0868 • Tower 410-677-0459 • TPA 1500' MSL • Rwy 14/32 5500' Rwy 5/23 5000' • Trouble T
SAVANNAH / HILTON HEAD INTL GA (SAV)	• Tower 912-964-3700 • TPA 1550' MSL • Rwy 10/28 9351' Rwy 1/19 7002'
SEYMOUR JOHNSON AFB NC (GSB)	• Base Ops DSN 722-4097 • Comm 919-722-4097/4098 • Traffic pattern 1,300' MSL • Rwy8/26 11760' • Right traffic Rwy 8
SUSSEX COUNTY ARPT DE (GED)	• Uncontrolled, • ASOS 302-856-2927 • Mgr 302-855-7770 • Rwy 4/22 5000' Rwy 13/31 too short • IFR Departure requires VFR to IFR MEA • See ASRR for WBC • Trouble T
TRI-STATE ARPT / MILTON J. FERGUSON FIELD WV (HTS)	• ASOS 304-453-3408 • Tower 304-453-1201 • Rwy 12/30 6517' • Rwy 3/21 too short • See ASRR for WBC
WALLOPS FLIGHT FACILITY VA (WAL)	• Call for PPR from NASA • ASOS 757-824-0820 • Primary Mgr 757-824-2440 • Alt Tower 757-824-1688 • Rwy 4/22 8749' Rwy 10/28 8005' • Rwy 17/35 too short • Watch for heavy bird activity and strong wind shifts
WILLOW GROVE NAS JRB PA (NXX)	• Call to coord: DSN 991-6196 or Comm 215-443-6202 • Noise Sensitive Area; see AP/1 • Tran Acft Req Multiple Apch Rstd To 1300-0200z++ Mon-Sat; 1700-0200z++ Sun • TPA 1900' MSL • Rwy 15/33 8002'
WILMINGTON / NEW HANOVER INTL NC (ILM)	• ASOS 910-343-9489 • Tower 910-815-4504 • Rwy 6/24 8016' Rwy 17/35 7004' • Numerous taxi restrictions

WILMINGTON / NEW CASTLE COUNTY DE (ILG)	• ASOS 302-328-1536 • Tower 302-324-00823 • Rwy 9/27 7181' Rwy 1/19 7012' • Rwy 14/32 too short • Numerous taxi restrictions
WRIGHT-PATTERSON AFB OH (FFO)	• Base Ops DSN 787-2131 / 3686 • Comm 937-257-2131 • TPA 2300' MSL • Rwy 5R/23L 7000' Rwy 5L/23R 12601'
YEAGER ARPT WV (CRW)	• ASOS 304-346-4797 • Tower 304347-5285 • Rwy 5/23 6302' Rwy 15/33 too short • See ASRR for WBC • AMC Special PIC Airport
YOUNGSTOWN-WARREN REGIONAL OH (YNG)	• Base OPS DSN 346-1069/1181 • No practice apch 0300-1300Z++ • Rwy 14/32 9003' Rwy 5/23 5002'

Attachment 6 (Added)

89 OG PRE-APPROVED OUT-AND-BACK AIRFIELDS

A6.1. Out & Back Airfields

OPTION	ICAO	AIRFIELD	RUNWAYS	LENGTH X WIDTH	FBO	PHONE	Contract Fuel	Stairs	Transition Field Leaving KADW	Transition Field Returning to KADW
A	KBGR	Bangor Int'l Airport, ME	15/33	11,440 x 200	Avitat/Mil	(207) 992-4582 (207) 990-7232	Yes	Yes	KACY Atlantic City, NJ	KMDT Harrisburg, PA
B	KCOS	Colorado Springs Municipal Airport, CO	17L/35R 17R/35L 12/30	13,501 x 150 11,022 x 150 8,269 x 150	JetCenter/Mil	(719) 591-2288 (719) 556-4779	Yes	Yes	KFFO Wright-Patt, AFB, OH	KLEX Lexington, KY
C	KAMA	Rick Husband Amarillo Int'l Airport, TX	4/22 13/31	13,502 x 200 7,901 x 150	Tac Air	(806) 335-2806	Yes	Yes	KROA Roanoke, VA	KCRW Yeager Field, WV
D	KMCF	MacDill Air Force Base, FL	4/22	11,421 x 151	Military	(813) 828-2350	Yes	Yes	KCHS Charleston AFB, SC	KILM Wilmington, NC
E	KDLH	Duluth Int'l Airport, MN	9/27 3/21	10,162 x 150 5,718 x 150	Monaco Air/Mil	(218) 727-2911 (218) 788-7370	Yes	Yes	KLCK Rickenbacker AFB, OH	KMRB Martinsburg, WV