

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

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Flying Operations

***FLIGHT MANAGER
RESPONSIBILITIES AND
PROCEDURES***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication implements Air Force Policy Directive (AFPD) 10-21, *Rapid Global Mobility* and AFPD 11-2, *Aircrew Operations*. This publication assigns responsibilities and provides procedures with the aim of ensuring the safe and successful accomplishment of the Mobility Air Force (MAF) worldwide mobility mission. This manual applies to Airmen who have graduated from flight manager (FM) technical training related to this publication, aircrews flying flight managed sorties, planners and other individuals involved in planning a mission tasked to be flight managed, personnel providing command and control of flight managed sorties, and agencies providing support to flight management (e.g., weather technicians, flight planners, diplomatic clearance specialists). This publication applies to the Regular Air Force, the Air National Guard (ANG), and Air Force Reserve (AFR) when flight managed. A flight managed sortie is one where planning is done by an FM instead of by an aircrew member. It applies to all missions planned or executed under the control of the 618th Air Operations Center (618 AOC), Pacific Air Forces (PACAF) 613th Air Operations Center (613 AOC), and United States Air Forces Europe-Air Forces Africa (USAFE-AFAFRICA) 603rd Air Operations Center (603 AOC). This publication does not apply to the United States Space Force. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See DAFMAN 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, via the requestor’s chain of command to the Major Command Director of Operations (MAJCOM/A3) for non-tiered compliance items. Ensure all records generated because of processes prescribed in this publication adhere to Air Force Instruction 33-322, *Records*

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SUMMARY OF CHANGES

This document has been substantially revised and needs to be completely reviewed. Changes include: (1) added external agency responsibilities; (2) removed flight manager training, evaluation and certification remarks in **Chapter 3** as they are addressed in other manuals; (3) removed exceptions to policy for 603 and 613 Air Mobility Divisions (AMDs) as they should be incorporated in a MAJCOM Supplement to this manual; (4) provided guidance on filing instrument flight rules (IFR) or visual flight rules (VFR) to locations without compatible instrument approaches; (5) removed references to Advance Computer Flight Plan and allowed flight managers (FMs) to use other flight planning programs if trained on their use; (6) used MatterMost to deliver Crew Papers; (7) adjusted max diversion distance for KC-46 aircraft to 1236 nautical miles; (8) increased Aircraft Rescue and Firefighting (ARFF) to International Civil Aviation Organization (ICAO) Category Seven for max diversion times exceeding 180 minutes; (9) allowed use of 207 and 240 minutes max diversion times; (10) defined responsibilities for FMs and crews after take off and prior to Extend Operations Area of Operation (EAO) Entry; and (11) removed references to Portable Flight Planning System.

Chapter 1—GENERAL INFORMATION	5
1.1. Overview.....	5
1.2. Applicability.....	5
1.3. Key Words Explained.....	5
1.4. Deviations and Waivers.....	5
1.5. Combined Command Operations.....	5
1.6. MAJCOM Supplements.....	5
1.7. AOC Supplements.....	6
1.8. Improvement Recommendations.....	6
1.9. Definitions.....	6
Chapter 2—ROLES AND RESPONSIBILITIES	7
2.1. General.....	7
2.2. MAJCOM Operations Directorate Director's (A3/DO) Responsibilities.....	7

2.3.	603 and 613 AOC/AMD Chiefs' and 618 AOC Commander's Responsibilities. ...	7
2.4.	Chief of Flight Management (618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD) Responsibilities.....	7
2.5.	Command and Control (C2).....	8
2.6.	Mission Planner (MP) Responsibilities.	9
Chapter 3—FLIGHT MANAGER PROCEDURES		12
3.1.	Definition of Flight Management.	12
3.2.	Flight Management Phases.	12
3.3.	Planning Documents.	12
3.4.	FM Responsibilities.	12
3.5.	Sortie Execution Phase.	13
3.6.	Departure Planning.	13
3.7.	Maximum Takeoff Gross Weight Calculations (MTOGW).	14
3.8.	Enroute Planning Procedures.....	14
3.9.	Arrival Planning.....	15
3.10.	Computer Flight Plan (CFP) Procedures.	16
3.11.	Fuel Planning Procedures.	16
3.12.	Flight Plan Filing and Documentation.	17
3.13.	Crew Paper Assembly, Review, Publication and Distribution.	17
3.14.	Crew Papers Transmission.....	18
3.15.	Electronic Receipt of Crew Papers.	18
3.16.	Flight Following.	18
Chapter 4—EXTENDED OPERATIONS		21
4.1.	Extended Operations (ETOPS) Procedures.	21
4.2.	Range Rings.....	21
4.3.	Preclude and Protect.	21
4.4.	ETP Requirements for ETOPS Sorties.	21
4.5.	ETOPS Computer Flight Plans.	21
4.6.	ETOPS Diversion Scenarios.	22
4.7.	ETOPS Diversion Fuel Adjustments.	22
4.8.	Pre-Departure Planning.....	23
4.9.	Pre-Departure Briefing.	24
4.10.	Prior to Takeoff.....	24

4.11.	After Takeoff but Prior to EAO Entry.	24
4.12.	After EAO Entry.	25
4.13.	Termination of ETOPS Procedures.	25
Chapter 5—COMMAND AND CONTROL (C2)		26
5.1.	General.	26
5.2.	Pilot in Command (PIC).	26
5.3.	Mission Clearance Decision.	26
5.4.	Flight Manager and Pilot in Command Shared Responsibilities.	26
5.5.	Flight Manager and Flight Controller Division of Duties.	27
5.6.	Originating Mission Setups.	27
5.7.	Intelligence Watch Procedures.	28
5.8.	Secure Launch Program.	28
5.9.	Positive Launch Procedures.	28
5.10.	Operational C2 Reporting.	29
5.11.	Enroute Maintenance Support.	30
5.12.	Collaborative Decision Making (CDM) Team Responsibilities.	30
Chapter 6—FLIGHT MANAGER COMMUNICATIONS, INFORMATION SYSTEMS, AND PROGRAM REQUIREMENTS		34
6.1.	General.	34
6.2.	Flight Manager Communications/Policy and Requirements.	34
6.3.	Global Decision Support System (GDSS).	34
6.4.	GO81 Consolidated Aircraft Maintenance System (CAMS).	34
6.5.	MAF Flight Planning and Flight Planning Support Systems.	34
6.6.	Global Air Transportation Execution System (GATES) Payload Information.	35
6.7.	557th Weather Wing.	35
6.8.	Notice to Air Missions (NOTAM) and Temporary Flight Restriction (TFR).	35
6.9.	Airman Safety Action Program (ASAP).	35
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION		37

Chapter 1

GENERAL INFORMATION

1.1. Overview.

1.1.1. This manual provides guidance for flight managers (FMs) when managing Mobility Air Force (MAF) missions. When guidance in this manual conflicts with another basic/source document, that document takes precedence.

1.1.2. Unit commanders and agency directors involved with or supporting flight management must make current copies of this AFMAN available to appropriate personnel. **(T-2)**

1.2. Applicability. This AFMAN applies to all MAF agencies planning or executing MAF sorties or missions. When specified as a reference, source directives take precedence in case of conflicts, revisions, matters of interpretation, and waiver authority. For the waiver authority where this AFMAN is the source document, see [paragraph 1.4.2](#).

1.3. Key Words Explained.

1.3.1. **“Will”** and **“Must”** 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 and/or techniques that are considered essential to emphasize.

1.4. Deviations and Waivers. Do not deviate from policies and guidance in this manual except for safety, when necessary to protect the aircrew or aircraft from a situation not covered by this manual where immediate action is required, or if information differs from a source document.

1.4.1. Deviations. The FM must report deviations or exceptions taken without a waiver through proper channels to their Chief, Major Command (MAJCOM) Standardization/Evaluation, who in turn, must notify Chief, AMC Standardization and Evaluation Division (AMC/A3V) (lead command) for follow-on action, if necessary. **(T-2)**

1.4.2. Waivers. Unless otherwise directed, waiver authority for contents of this manual is the MAJCOM/A3 with mission execution authority. FMs can obtain waivers to deviate from provisions in this AFMAN via their MAJCOM Standardization and Evaluation.

1.5. Combined Command Operations. Use this manual when planning and conducting operations involving personnel/units from multiple MAJCOMs. Ensure early coordination with each MAJCOM/A3 to obtain approval for use of resources and provision of advance training related theater-unique procedures.

1.6. MAJCOM Supplements. This AFMAN is a basic directive. AMC, PACAF, and USAFE-AFAFRICA may supplement this AFMAN according to ACPD 11-2 and DAFMAN 90-161.

1.6.1. MAJCOM specific procedures must not be less restrictive than this basic document.

1.6.2. List MAJCOM/A3 approved permanent waivers in the MAJCOM supplement.

1.6.3. MAJCOM A3V will forward MAJCOM approved supplements electronically to amc.a37v@us.af.mil (attach DAF Form 673, *Department of the Air Force Publication/Form Action Request*). (T-2)

1.6.4. Chief, AMC Stan/Eval must facilitate the AMC/A3 and Air Force Flight Standards Agency/Flight Directives (AFFSA/XOF) approval process. (T-2)

1.6.5. Upon approval, MAJCOM A3Vs must send an electronic copy of the approved version to amc.a37v@us.af.mil. (T-2)

1.7. AOC Supplements. AOCs will create operating instructions (OIs), operations manuals, or supplements to this publication to provide FMs AOC tailored guidance to reference in the performance of their duties. Chiefs, Flight Management will send approved electronic versions of the OI, operations manual, or supplement to AMC Stan Eval and Readiness Division (amc.a37v@us.af.mil) (T-2)

1.8. Improvement Recommendations. Submit suggested improvements on DAF Form 847 via 847 Central at <https://usaf.dps.mil/teams/12797/SitePages/847%20Central.aspx>.

1.9. Definitions. Find explanations and definitions of terms and abbreviations commonly used in the aviation community in the Title 14, Code of Federal Regulations (CFR), Part 1, *Definitions and Abbreviations*; *DoD FLIP General Planning*, Chapter 2; and the *Department of Defense Dictionary of Military and Associated Terms*. See Terms Section for common terms used herein.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. General. This chapter describes MAJCOM, AOC, Command and Control (C2), and Mission Planner (MP) responsibilities for the Flight Management (FM) program.

2.2. MAJCOM Operations Directorate Director's (A3/DO) Responsibilities.

2.2.1. Coordinate flight management mission planning, execution planning, and flight following specific guidance and processes. **(T-2)**

2.2.2. Serve as the functional manager for flight management systems, guidance, and processes. **(T-2)**

2.2.3. Serve as the MAJCOM staff advocate for flight management. **(T-2)**

2.3. 603 and 613 AOC/AMD Chiefs' and 618 AOC Commander's Responsibilities.

2.3.1. Ensure sufficient manning requirements are met to accomplish the mission and support staff functions, such as, training, scheduling, and standardization/evaluation. **(T-3)**

2.3.2. Ensure FM positions are manned to support continuous operations. **(T-3)**

2.3.3. Ensure that only persons certified as flight managers or individuals under the direct supervision of an instructor flight manager assume those duties and responsibilities. FM civil service positions may be coded as "Mission-Essential positions" in the Civil Service System as defined by DAFI 36-129, *Civilian Personnel Management and Administration*. **(T-3)**

2.3.4. Empower FMs to make decisions and execute procedures necessary to accomplish the overall MAF mission. **(T-3)**

2.3.5. Have overall administrative responsibility for FMs and ensure the guidance, resources, and support required to accomplish MAF missions are provided. **(T-3)**

2.3.6. Maintain a current Flight Management OI on local procedures. They will be prepared and numbered IAW DAFMAN 90-161 and include as a minimum:

2.3.6.1. Specified FM duties and responsibilities. **(T-3)**

2.3.6.2. Training and certification of FMs. **(T-3)**

2.3.6.3. Standardization of operational forms used in Flight Management. **(T-3)**

2.3.6.4. Guidance to be followed during computer and communication equipment malfunctions. **(T-3)**

2.4. Chief of Flight Management (618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD) Responsibilities.

2.4.1. FM Information File. Maintain an information file consisting of the following:

2.4.1.1. Read File. Maintain a read file system for classified/non-classified information pertinent to Flight Management personnel. **(T-2)**

2.4.1.2. Publications Library. Create an electronic functional publications library for FMs to use. As a minimum, the publications library will include AF and MAJCOM instructions

covering MAF C2, Flight Management, Flight Information Publications (FLIP), the Foreign Clearance Guide (FCG), aircraft technical orders, AFMAN 11-202 Volume 3, *Flight Operations*, AFMAN 11-2 Mission Design Series (MDS) Volume 3 for each aircraft flight managed, AMCI 11-208, *Mobility Air Forces Management*, AMCI 90-903, *Aviation Operational Risk Management (AVORM) Program*, and their AOC's operating instructions and operations manuals. **(T-2)**

2.4.2. Shift Changeover Procedures. Establish shift changeover procedures that will include, but are not limited to, the following:

2.4.2.1. Alert FMs to operational issues affecting the shift. **(T-3)**

2.4.2.2. Alert FMs to hardware/software issues affecting the shift. **(T-3)**

2.4.3. Shift log. 618 Air Operations Center Flight Management Division (618 AOC/MODM), 613 AOC/AMD, and 603 AOC/AMD will incorporate use of a shift log. **(T-2)** The objective of the shift log is to serve as an official record of events affecting the flight management process.

2.4.3.1. The shift log may be one used by the division's C2 element or one created solely for FMs to use. For logs created solely for FMs, the FM shift supervisor will maintain the shift log. **(T-3)**

2.4.3.2. An electronic Quick Reaction Checklist (QRC) will be used (maintained by the C2 element). **(T-3)**

2.4.3.3. If using a shift log solely for use by FMs, the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD will develop and maintain an OI governing the policies and procedures for preparing the shift log in their operating instruction. **(T-3)**

2.4.3.4. Entries in the log will be made as soon as practicable. Entries will include, but are not limited to:

2.4.3.4.1. Significant incidents and events. The entry will include the issues affecting the Flight Management process such as technical challenges, quick reaction checklists used by the C2 element, actions taken, and the agencies or individuals notified. **(T-3)**

2.4.3.4.2. Emergency conditions or equipment failures. **(T-3)**

2.4.3.4.3. Computer systems, communication equipment malfunctions, down time for maintenance. **(T-3)**

2.5. Command and Control (C2).

2.5.1. C2 Authority. While FMs directly support command and control, they do not exercise C2 authority. Three Air Operations Centers (AOCs) (618 AOC (TACC), PACAF's 613 AOC/AMD, and USAFE-AFAFRICA's 603 AOC/AMD) provide both C2 and FM flight support for MAF missions. For sorties not being command and controlled by an AOC, but being provided flight management support, base or wing command posts (CPs) will exercise command and control.

2.5.2. C2 Responsibilities. The C2 element (at AOC or base/wing level) will review sortie details to ensure they reflect the most current information and will provide this information to the appropriate AOC's FMs and C2 personnel no later than six hours prior to scheduled

departure time. **(T-2)** The primary means of notification will be the MAF C2 system followed up by verbal confirmation (phone call or face to face). Lower echelons of C2 (e.g., base/wing C2) will inform the appropriate AOC or FM (for missions not C2'd by an AOC) immediately of maintenance deviations, revised payloads, or changes of aircraft tail/fleet number, to ensure an accurate computer flight plan (CFP) can be generated and included in the Crew Papers. **(T-2)**

2.5.3. Quick Reaction Checklists (QRC). Use of QRCs is mandatory. It is the responsibility of the appropriate C2 personnel to complete the QRC, but FMs will assist when requested and provide inputs for QRC completion. **(T-3)**

2.5.4. Crew Papers. At locations with MAF C2 presence, command post (CP) controllers will ensure crews are provided Crew Papers at show time. **(T-3)**

2.6. Mission Planner (MP) Responsibilities.

2.6.1. AOC or Unit Level MP Responsibilities. The goal of the mission planner is to provide both C2 and FMs an executable plan. For missions command and controlled by an AOC, the MP is an individual assigned to or working in direct support of the AOC. For missions command and controlled at the wing/base level, the MP is, in most circumstances, a unit level planner (current operations, aircrew member). There are some missions commanded and controlled by the AOC but planned by the unit. For itinerary changes of flight managed missions under the command and control of an AOC, the duty officer/deputy duty officer (DO/DDO) directing the change is the mission planner for the purpose of this manual. For missions being flight managed, but not under AOC C2, the unit is responsible for ensuring a point of contact is available 24 hours a day who has the authority and ability to make itinerary changes in the Global Decision Support System (GDSS). Flight managers can expect the following has been accomplished by mission planners:

2.6.2. Airfield Review. In addition to identifying aerial ports of entry and departure, the MP also identifies preferred alternates, requests weight bearing capacity (WBC) waivers from either the airfield manager or MAJCOM A3 and determines if there are authorized instrument approach procedures (IAPs). In the absence of DoD-approved IAPs, the MP checks to see if the location is on the DoD Accepted Host Nation list, and if it is not, requests a Foreign Terminal Instrument Procedure (FTIP) review. For locations without instrument approaches, the MP should document "VFR arrival and departure is required" via a leg remark in the Mission Detail.

2.6.2.1. Airfield Suitability. Using the Airfield Suitability and Restrictions Report (ASRR) or the airfield detail/Giant Report, the MP ensures all airfields planned for use (point of departure (POD)/point of arrival (POA)/Alternates) are suitable. If the airfield is in archive status, the MP requests to have it be removed from archive status or selects a new airfield.

2.6.2.2. Airfield Surfaces. MPs ensure runways, taxiways, and ramps intended for use have a WBC acceptable for the planned aircraft operating weight. For airfields that do not have WBC published, aircraft classification number (ACN) or pavement classification number (PCN) are used. MPs request waivers or coordinate approvals with airport authorities. MPs annotate WBC waivers and approvals, including the weight the sortie is waived to, in the GDSS Mission Detail Waiver Tab.

2.6.2.3. Airfield Restrictions. The MP ensures the mission complies with all airfield restrictions for the time of intended operations (e.g., Day Only, VFR only). The MP consults GDSS Airfield Detail, Supplemental Theater Information File (STIF), the GDSS mission detail, and both Flight Information Publications (FLIP) Area Planning and the Enroute Supplement.

2.6.2.4. Airfield Operating Hours. The MP ensures the airfield is open for the intended operation. The MP coordinates with airport authorities to land or depart outside the airfield operating hours. The MP normally uses the Mission Detail Waiver Tab to identify the airport point of contact, with phone number, who granted approval for the aircraft to operate outside of published hours, and what dates and times are approved. This information may also be contained in the PPR tab or as a GDSS Mission Remark. Occasionally, airfields adjust their operating hours while the mission is in execution. During execution, when missions delay into airfield closure hours, adjusting the mission to meet new hours is the responsibility of the DO/DDO.

2.6.2.5. Bird/Wildlife Aircraft Strike Hazard (BASH). The MP ensures mission operating times are outside of the BASH restrictions window. Since BASH window restrictions are not the same for all airfields in the same category, personnel need to be knowledgeable of which BASH restrictions windows apply. If required, the MP requests a waiver to operate inside of the BASH restrictions window. The MP uses the GDSS Mission Detail Waiver Tab to document who approved the waiver and for what date and time.

2.6.2.6. Fuel. The MP ensures each location has appropriate fuel for the aircraft. If fuel is not available, the MP makes sure aircraft can tanker enough fuel through the location and make it to the next location. The MP includes outbound cargo and suitable alternate when determining fuel tankering requirements. The mission planner documents fuel and tankering requirements in the Mission Detail. Occasionally during execution, the flight plan dictates a different fuel requirement than during planning (e.g., different cargo load than authorized, change of winds, etc). When this occurs, the DO/DDO adds an additional fuel stop.

2.6.2.7. Hazardous Material (HAZMAT). The MP ensures planned cargo weights, classes, and weights of HAZMAT are documented in the Mission Detail. The MP coordinates explosive movements with all stations the explosives will transit.

2.6.2.8. Material Handling Equipment (MHE). MHE availability is not a MP responsibility. The user is responsible for arranging MHE support for special assignment airlift missions (SAAMs). Channel ports possess MHE needed to support cargo movement at their locations.

2.6.2.9. Aircraft Rescue and Fire Fighting (ARFF). MPs review ARFF during the planning process and either coordinate additional ARFF for those places that do not meet the requirements of AMCI 11-208, or request waivers via the proper Tier in AMCI 11-208. If a waiver is approved, it will be annotated in the Waiver Tab in GDSS. **(T-3)**

2.6.2.10. Notice to Air Missions (NOTAMs). The MP checks NOTAMs for each location, to include those identified as alternates. MPs mitigate or deconflict NOTAMs. The latest time NOTAMs are checked by MPs is during the Final Review process 24 hours prior to

the mission entering execution. Changes to NOTAMs while the mission is in execution are not the responsibility of the MP.

Chapter 3

FLIGHT MANAGER PROCEDURES

3.1. Definition of Flight Management. Flight Management is a set of integrated processes and supporting technologies whose purpose is to provide services to aircrews like those provided by a commercial airline's dispatch center. While there is shared responsibility between aircrew and flight managers, there is not shared control. C2 and the aircrew share control of the sortie.

3.2. Flight Management Phases.

3.2.1. Mission Planning. Other than identifying which missions will be flight managed, mission planning is done by other organizations.

3.2.2. Sortie Allocation. FM supervisors or designated allocators identify which missions will be flight managed. Off station trainers (OSTs) are not normally flight managed, exception being KC-46 OSTs, but only when planned to fly in ETOPS airspace, FM workload permitting. Flight Managers may work non-United States Transportation Command (USTRANSCOM) tasked sorties (e.g., Guardlift, OSTs, etc.) on a workload permitting basis when a service request has been submitted by the unit and approved through the Mission Execution Services process outlined in AMCI 11-208. KC-46 units requesting FM support for their OSTs identify which sorties will be operating inside the Extended Operations Area of Operations (EAO) when they submit a service request. **(T-3)**

3.2.3. Sortie Execution. This is where the FM process begins (normally six hours prior to departure). The FM takes the plan provided by mission planners and creates a set of Crew Papers for individual or multiple sorties. It is during this phase where the executable mission plan is dynamically adjusted for individual sorties to meet unforeseen limiting factors.

3.2.4. Flight Following. This phase begins after publication of the Crew Papers and ends when the aircraft lands. It is during this phase where FMs actively monitor the sortie.

3.3. Planning Documents. In addition to this document, FMs use AFMAN 11-202, Volume 3, *Flight Operations* (to include MAJCOM Supplement), AFMAN 11-255, Volume 1, *Flight Manager Training*, AFMAN 11-255, Volume 2, *Flight Manager Standardization/Evaluation Program*, AFMAN 11-2MDS Volume 3, AMCI 11-208, *Mobility Air Forces Management*, AMCI 90-903, FLIP General and Area Planning, Flight Information Handbook, FLIP enroute supplements, the Foreign Clearance Guide, the FM Read File, and their AOC's operating instructions and operations manuals while completing FM duties.

3.4. FM Responsibilities. FMs will complete the following actions prior to beginning work on first assigned flight managed sortie (as applicable):

3.4.1. Shift Information. Supervisors will provide FMs updates pertaining to their shift, including current read file, current shift briefing items, plus any other information affecting shift operations. **(T-3)**

3.4.2. Shift Changeover. The outgoing FM will provide a thorough briefing to account for all known planning and execution issues for assigned sorties in-work or inflight to include, but not limited to, items not complete; reason for not filing/publishing; and sorties required to flight follow. The briefing will also include current workstation system discrepancies. The

incoming FM must set up workstation and open programs in accordance with local guidance. **(T-3)**

3.4.3. FM Read File. FMs will ensure the latest FM Read File item is reviewed and signed off prior to beginning work on assigned sorties. **(T-3)**

3.4.4. Planning Requirements. Ensure all planning documents (FLIP) and information system software (Digital Aeronautical Flight Information File (DAFIF), Flight Plan Route Database) used for planning are current prior to starting work on first sortie. **(T-2)**

3.5. Sortie Execution Phase.

3.5.1. Planning Timeline. The normal planning process begins 6 hours prior to departure and ends with publishing the Crew Papers. The Crew Papers are ideally published 4 hours prior to departure. FMs are encouraged to work ahead, but to wait until 4 hours prior to departure (earlier than 4 hours prior, if at the end of their shift) to publish the Crew Papers.

3.5.2. Review Mission Detail. FMs will review Mission Detail and ensure validity and routing restrictions of diplomatic clearances, PPR has been obtained and is valid for the arrival time of the aircraft, and waivers have been approved. The review of the Mission Detail will include a check to include both mission and leg remarks, notes, advisories, configuration, maintenance status, and cargo. **(T-2)**

3.5.3. Airfield Weight Restrictions. FMs will ensure aircraft weight does not exceed the WBC of airport surfaces planned to be used (runways, taxiways, ramps). If mission planner did not obtain a waiver, FM will coordinate with C2 for one to be requested. **(T-2)**

3.5.4. Overflights. FMs will determine if an aircraft can overfly a refueling stop or does not require a scheduled air refueling (AR). If the refueling stop or scheduled air refueling is not needed, the FM will inform C2. The following should be considered before overflying a scheduled destination: diplomatic clearances, customs, WBC, passengers, and on/offloads to include assets designated Mission Impaired Capability Awaiting Part (MICAP) at the overfly location. **(T-2)**

3.5.5. Airfield Suitability. FMs will verify suitability of all locations being transited, to include those identified as alternates. **(T-2)**

3.6. Departure Planning. When available, FMs will review the Standard Instrument Departure(s) (SIDs), instrument approach plates (IAPs) for use in the event of an emergency return, NOTAMs, FTIP Review, diplomatic clearances (if applicable), airfield suitability (GDSS/ASRR Giant Report), and weather hazards. **(T-2)**

3.6.1. Departure Alternate Planning. Use AFMAN 11-202 Volume 3, AFMAN 11-2MDS Volume 3, the appropriate MAJCOM supplements, and AOC directive documents to determine specific departure alternate requirements.

3.6.2. Filing and Crew Paper Requirements. If required, the departure alternate will be filed in the BLK18 take off alternate (TALT) cell of the DD 1801, *International Flight Plan* (e.g., TALT/KCHS) and included in the FM notes. **(T-3)** Refer to the appropriate AFMAN 11-2MDS Volume 3 for departure alternate information, time limitations, and weather requirements.

3.7. Maximum Takeoff Gross Weight Calculations (MTOGW). The tool available for FMs to calculate an aircraft's MTOGW allowing it to fly the special departure procedure (SDP) with one-engine inoperative (OEI) is Jeppesen MilPlanner. SDP is a generic term to describe an escape procedure designed to allow a safe takeoff for multi-engine aircraft when the OEI climb rate would not otherwise meet the departure procedure's minimum climb gradient requirement. FMs are responsible for ensuring the planned aircraft TOGW does not exceed the MTOGW allowed for an aircraft with OEI to meet the climb restrictions of the SDP; for specific requirements on calculating MTOGWs, FMs should reference their AOC's OIs and/or operations manuals. **(T-2)**

3.8. Enroute Planning Procedures.

3.8.1. Enroute Planning. FMs will verify the computer flight plan routing matches the diplomatic clearances (to include entry and exit points/times if specified). FMs will also check weather, airspace, and threats along the route; if the FM determines these make the sortie un-executable, the FM will notify and work with the Collaborative Decision Making (CDM) team to mitigate the issue. Unless directed to use a different airspeed, the FM will use the command directed MDS Mission Index values when planning a sortie. On a case-by-case basis, FMs may need to use other airspeeds to meet mission timing requirements or to get a computer flight plan to run. FMs will optimize flight plans and flight routing for fuel efficiency considering the planning constraints. Commands will establish a route database that meets the requirements of country specific Aeronautical Information Publications (AIP), regional routing documents (e.g., Route Availability Document (RAD)), fuel savings, and user preferred routings. **(T-3)**

3.8.2. Enroute Alternate. Any enroute alternates entered in the Crew Papers will include weather and NOTAMs for those airfields. **Note:** Any airfield used to avoid otherwise required equal time point (ETP) calculations is required to be included in the Crew Papers. These airfields are required to meet the same requirements as last suitable airfields/first suitable airfields (LSAF/FSAFs). **(T-3)**

3.8.3. Air Refueling Alternate. For missions that require air refueling, choose an alternate for receiver aircraft in the event air refueling cannot occur. Air refueling alternates selected must meet destination alternate weather requirements. **(T-2)**

3.8.4. Severe Icing, Turbulence and Mountain Wave Turbulence Avoidance. Unless the MAJCOM supplement makes an exception, FMs will not plan routes through areas of forecast or reported severe icing or severe turbulence. FMs will not plan routes through areas of known or forecast moderate or greater mountain wave turbulence. FMs will plan routes at least 1,000 feet above and/or below for all weather hazards. **(T-3)**

3.8.5. Volcanic Ash. FMs will plan to avoid forecast or known volcanic ash by at least 50 nautical miles. FMs will not plan routes of flight above or below volcanic ash at any altitude unless aircraft is conducting rescue operations. **(T-3)**

3.8.6. Significant Meteorological Information (SIGMET). FMs will use AOC approved military weather sources as the primary source for detailed weather forecast and advisories if available. **(T-3)** National Weather Service in-flight weather advisories are not limiting to Air Force aircraft.

3.8.7. Equal Time Point (ETP) Planning. Portions of routes when the total time between suitable recovery airfields (LSAF and FSAF) is 3 hours or more require an ETP. **(T-2)** All

ETPs are on the planned route of flight with equal time to suitable recovery airfields based on great circle calculations at the appropriate cruise altitude for the aircraft condition.

3.8.7.1. ETP LSAF/FSAF Weather Requirements. On Non-ETOPS sorties, LSAF and FSAF locations used for the ETP must meet applicable destination alternate requirements (greater of 1000/2 or 500/1 above the lowest compatible approach minimum within plus or minus one hour of estimated time of arrival (ETA)). **(T-2)**

3.8.7.2. ETP Fuel Requirements. If the flight planning system can only plot one ETP scenario, decompression fuel calculations will be used. Mobility Air Force Automated Flight Planning Service (MAFPS), the primary flight planning software used by FMs, will plan for the aircraft to arrive at the LSAF/FSAF with one hour of reserve fuel (45 minutes of reserve fuel and 15 minutes of contingency fuel) plus unusable fuel values specified in the corresponding AFMAN 11-2MDS Volume 3. **(T-3)**

3.8.8. Recovery Field Locations. For oceanic routing requiring an ETP FMs will choose the suitable recovery airfields closest to coast in/coast out. **(T-3)**

3.8.9. Suitable Recovery Airfields Restrictions. AMC Certification Airfields will not be considered/used when choosing suitable recovery airfields. AMC Special Pilot in Command (SPIC) airfields may be used. Suitable recovery airfields may also be restricted by airfield (ASRR) limits. **(T-2)**

3.8.10. Air Route Traffic Control Center NOTAMs. FMs are not responsible for checking center NOTAMs but are responsible for checking NOTAMs at points of departure, arrival, destination and enroute alternates, FSAF/LSAFs, and any identified divert locations.

3.9. Arrival Planning. FMs will consider the following when planning this phase: mission design series (MDS), aircraft tail number, aircraft equipage, weather, BASH, NOTAMs, operating hours, PPRs, standard terminal arrivals (STARs), terminal procedures, and airfield suitability (GDSS/ASRR Giant Report). **(T-3)**

3.9.1. IFR Arrivals. FMs will check to see if IAPs at destination and alternate airports are compatible. If there are no compatible IAPs at the destination, FMs may file IFR but need to file an alternate regardless of the weather. FMs will file 2 alternates, if the weather forecast for the destination airfield, from 1 hour before to 1 hour after the aircraft's estimated time of arrival, is a ceiling less than 1,000 feet above the airfield elevation or a visibility lower than 5 statute miles (SMs). **(T-2)** An FM may use as an alternate an airport without a compatible IAP provided the weather forecast, from 1 hour before to 1 hour after the estimated time of arrival, including TEMPO conditions, permits, under basic VFR, a descent from the minimum enroute altitude, approach, and landing. **(T-2)**

3.9.2. VFR Arrivals. FMs may also file a composite IFR/VFR flight plan if there are no compatible IAPs at the destination. Regardless of forecast, FMs will file an alternate. FMs will file the VFR transition point as the last point on the flight plan. FMs will file 2 alternates, if the weather forecast for the destination airfield, from 1 hour before to 1 hour after the aircraft's estimated time of arrival, is a ceiling less than 1,000 feet above the airfield elevation or a visibility lower than 5 statute miles (SMs). FMs will also file 2 alternates if the weather forecast, at the VFR transition point, from 1 hour before to 1 hour after the estimated time of arrival, including temporary (TEMPO) conditions, will not permit a descent from the minimum enroute altitude, approach, and landing under basic VFR. **(T-2)** The pilot in command (PIC)

assumes responsibility for determining when and where the transition to VFR begins and if the weather allows a VMC descent to landing.

3.9.3. Destination Alternate Airport Planning. FMs will select destination alternates in accordance with AFMAN 11-202 Volume 3, their MAJCOM's supplement, and their AOC's operating instructions. **(T-2)** FMs will choose the nearest suitable alternates that best meet mission requirements and conserve fuel.

3.9.4. RAVEN Requirements for Alternates. FMs will check to see if RAVENs are required. **(T-2)**

3.9.5. Island/Remote Destination. FMs will plan to island or remote destinations using procedures contained in their MAJCOM's supplement to AFMAN 11-202 Volume 3. **(T-2)**

3.10. Computer Flight Plan (CFP) Procedures.

3.10.1. Flight Planning. FMs will use command approved flight planning software. **(T-2)** The current command approved flight planning software program FMs will use for flight planning is the Mobility Air Forces Automated Flight Planning Service (MAFPS). FMs are also approved to use ARINC Direct Flight for the C-21 and C-37 aircraft and Jeppesen Dispatch for the C-32 and C-40 aircraft if these programs are available and the FM is trained on their use. MAJCOM instructions and worldwide aeronautical directives will be used to maintain the route segment database used by the FMs. **(T-3)**

3.10.2. CFPs are route, altitude, and fuel optimized based on MAJCOM approved MDS Flight Performance Models (FPMs). CFPs reflect the optimized solution based on the flight plan request inputs accounting for payload; diplomatic clearances; weather; airspace restrictions (routing constraints, use of organized tracks); airfield restrictions (open/closed time, WBC, NOTAMs); aircraft restrictions (performance, equipage, equipment outages, ETOPS); threats; and intelligence.

3.11. Fuel Planning Procedures.

3.11.1. Fuel Planning Policy. FMs will ensure CFPs comply with their MAJCOM's fuel planning guidance. **(T-2)**

3.11.2. Fuel Additions. FMs will make fuel additions where the aircraft's AFMAN 11-2MDS Volume 3 specifically names the FM as responsible for the calculation. **(T-2)**

3.11.3. Fuel Load Authority. FMs will provide the PIC with the fuel load calculated by the flight planning software. The PIC has the responsibility for determining how much fuel is placed on the aircraft. **(T-2)**

3.11.4. Fuel Tankering. Carrying more than the required ramp fuel to reduce or avoid fueling at a destination is only allowed when required by the mission and requires mission planner or duty officer approval for AOC controlled missions.

3.11.5. Engine Running Offload or Onload (ERO). FMs will include ERO fuel when directed by the mission planner or duty officer via a mission/leg remark in the Mission Detail. **(T-2)**

3.12. Flight Plan Filing and Documentation.

3.12.1. DD Form 1801 Procedures. FMs will file flight plans in accordance with FLIP General Planning. FMs will refer to their AOC's operating instruction for more detailed filing guidance. **(T-2)**

3.12.2. Flight Plan Filing. FMs will file the flight plan with the appropriate Air Traffic Service (ATS) agency addresses. **(T-2)**

3.12.3. Changes to Flight Plans. FM coordination is required for any changes to filed ATS flight plans for flight managed sorties. In circumstances where operational requirements necessitate a flight plan change and prior coordination with the FM is not possible, the PIC may approve a flight plan change from an authorized alternative agency (e.g., Airfield Management, Automated Flight Service Station), but will coordinate the change with the FM as soon as practicable. No other third party may alter a flight plan after a FM submits it to ATS. **Note:** The intent of this restriction is to ensure synchronization between filed flight plans and all other flight planning elements (e.g., diplomatic clearances, slot times). Uncoordinated changes to flight plans made by third parties may have serious operational implications (e.g., safety of flight, airspace, or diplomatic violations).

3.12.4. Filing Confirmation. When feasible, FMs will confirm acceptance of electronically submitted flight plans for flight managed sorties by use of manual or automated systems or processes. FMs will re-coordinate rejected flight plans with ATS to ensure the flight plan is properly on file with all appropriate ATS providers. **(T-2)**

3.13. Crew Paper Assembly, Review, Publication and Distribution. FMs will follow their AOC's operating instruction for crew paper assembly, review, publication, and distribution. FMs will prepare a complete set of Crew Papers on Flight Managed sorties. **(T-2)** When there is no opportunity or capability for the aircrew to receive Crew Papers at the next destination, the FM will provide the aircrew with a multiple sortie Crew Paper package. Contents of Crew Papers, in addition to the required information listed below will be defined and approved by MAJCOM Standardization/Evaluation. Crew Papers are normally transmitted electronically. The aircrew has the option of viewing Crew Papers on their tablets or printing out paper copies. The Crew Papers will include at a minimum:

3.13.1. FM Remarks. **(T-3)**

3.13.2. A copy of the CFP. **(T-3)**

3.13.3. A copy of the completed and electronically filed DD Form 1801 information that complies with appropriate guidance, and an Air Traffic Control (ATC) route of flight acknowledgement (if available). **(T-3)**

3.13.4. Copies of all Air Traffic Service (ATS) messages applicable to the sortie to include altitude reservation approval (ALTRV APVL) approval and the latest copy(ies) of the organized track message(s). **(T-3)**

3.13.5. NOTAMs. All required NOTAMs for intended departure, destination, and alternate airfields and Global Positioning System (GPS) NOTAMs (when available) as stipulated in AFMAN 11-202 Volume 3. **(T-3)** **Note:** MAJCOMs may modify NOTAM requirements in MAJCOM supplement.

3.13.6. Weather information. The FM requests the weather package; the weather forecasters build and post the weather package to the Crew Papers. The FM then reviews the weather before publishing the Crew Papers. **Note:** MAJCOMs may modify weather process in MAJCOM supplement. **(T-3)**

3.13.7. GDSS Mission Detail. **(T-3)**

3.13.8. Air Refueling (AR) information if applicable (receiver/tanker, sortie status, AR track weather, AR radio frequencies, air refueling initial point (ARIP), air refueling control point (ARCP), air refueling exit point (AR EXIT PT)). **(T-3)**

3.13.9. Aviation Operational Risk Management (AvORM). FMs will refer to their AOC's OI or operations manual to determine if comments are required. If required, the FM will input into the Crew Papers any remarks they determine may influence the PIC's scoring of operational risk management (ORM) risk factors. **(T-3)** Included with these remarks will be any risk mitigation steps already taken. FM inputs will mainly be concerned with the operational environment of the sortie (e.g., weather, BASH, arrival/departure/airfield complexities). For a detailed listing of the AvORM risk factors refer to AMCI 90-903 and the current approved AMC AvORM worksheet.

3.13.10. If there are special circumstances requiring coordination between the FM and the aircrew, the FM briefing is mandatory. The FM will indicate "PREDEPARTURE FLIGHT MANAGER BRIEFING REQUIRED" in the FM remarks in the Crew Papers and add a leg remark to the GDSS Mission Detail. The FM may request command and control set Positive Launch conditions to ensure a briefing. **(T-3)**

3.14. Crew Papers Transmission. The AOCs will issue policy regarding the transmission of crew papers. If using GDSS, aircrews will retrieve Crew Papers using their individual GDSS account or by obtaining them from pre-designated local facilities such as a command post, air mobility control center (AMCC), or base operations. Other acceptable means for delivering Crew Papers are via Matter Most, DoD SAFE (Secure Access File Exchange), Department of the Air Force 365 (DAF365) resources (Teams, OneDrive, military e-mail), and ARINC. **Note:** FMs will not include classified information in the Crew Papers. **(T-3)**

3.15. Electronic Receipt of Crew Papers. If downloaded by a C2 agency or the crew, the individual downloading should provide electronic receipt by selecting the "Accept Crew Papers" button in GDSS. If transmitted by DoD SAFE, FMs will be able to tell if the crew has obtained their Crew Papers. FMs can obtain a read receipt or message status for crew papers sent via Teams. Command and control agencies or aircrew will notify the FM of any sortie planning or administrative problems. **(T-3)**

3.16. Flight Following. FMs will flight follow their assigned sorties. Flight following includes sorties in the pre-departure, enroute, and arrival phases of flight. FMs will monitor Aircraft Communications Addressing and Reporting System (ACARS), if aircraft is equipped, and respond appropriately. FMs will exercise sound judgment to ensure they do not contact aircrews during critical phases of flight (e.g., takeoff, air refueling, airdrop, and landing). **(T-3)**

3.16.1. Pre-Departure Phase. The PIC has final responsibility for flight plan accuracy and diplomatic clearance compliance. The PIC will verify CFPs for route of flight and fuel computation accuracy before departure. The PIC will promptly notify the FM of any flight plan

discrepancies to ensure the correct route of flight is filed with air traffic control. For aircraft equipped with ACARS, crews should initiate a datalink logon.

3.16.1.1. FMs will monitor changes in key elements of sortie planning with special emphasis on risk mitigation and force protection and update Crew Papers as required ensuring information provided to aircrews is current. **(T-3)**

3.16.1.2. FMs will determine status of tanker(s)/receiver(s) and air refueling timing for air refueling sorties. **(T-3)**

3.16.1.3. FMs will configure GDSS to appropriately send/receive ACARS messages and ensure position reporting is enabled on assigned ACARS equipped aircraft. Position reporting may be by defaulted setting, by waypoints, or by timed sequence. **(T-3)**

3.16.1.4. If route changes or diversions are determined necessary to accomplish the sortie prior to departure, the FM will coordinate with appropriate C2 personnel to initiate changes. **(T-3)**

3.16.2. Enroute Phase. Flight following during the enroute phase consists of actions performed by the FM in sortie execution from crew paper publication to aircraft block-in. These actions include: proactively monitoring sortie progress by remaining aware of aircraft position and external factors affecting sortie execution (e.g. threats, weather, air traffic congestion); performing situational analysis of conditions along the sortie profile for potential disruptions; and collaborating with appropriate members of the CDM team (see [paragraph 5.12.](#)), ATS, diversion locations (if necessary), and the aircrew to derive best course of action (COA) when conditions jeopardize sortie success. If the sortie executes as originally planned, flight following is principally one of proactive observation, assessment, and support for the aircrew's arrival location preparations.

3.16.2.1. FMs will monitor ACARS message traffic and respond to, or ensure response to, aircrew requests. FMs will respond to all appropriate messages with the exception of weather requests, which will be answered by a weather forecaster. The FM should verify weather requests are answered. **(T-3)**

3.16.2.2. FMs will monitor the destination and alternate airfields' (destination alternate, AR alternate, LSAF/FSAF, ETOPS alternates) weather forecast for assigned in-flight aircraft. FMs will work with aircrews to find viable options (to include revised fuel plan if required) to safely recover the aircraft if the destination or alternate airfields' weather deteriorates below forecasted weather minimums. **(T-2)**

3.16.2.3. When appropriate communications are available, FMs will notify the aircrew when the following occur: the weather goes below forecasted weather or below approach minimums at the destination or any planned alternate/divert location; there are enroute weather hazards/SIGMETs not in the Crew Papers weather affecting planned route of flight; there are known ATC delays; and/or when C2 notifies the FM of mission changes. **(T-2)**

3.16.2.4. FMs will forward waiver requests and/or maintenance status (to include code and noun) to the C2 element on behalf of the aircrew if provided. **(T-2)**

3.16.2.5. FMs will provide support to aircrews requesting assistance to enhance the safe recovery of the flight and coordinate actions with appropriate agencies. **(T-2)**

3.16.2.6. Departure Phase. FMs will notify C2 personnel when C2 systems have not been updated with the actual departure time. This notification should take place when there is no system entry and 30 minutes have passed since scheduled departure, or since the actual departure (if known). **(T-3)**

3.16.3. Arrival Phase. FMs will notify C2 personnel when C2 systems have not been updated with the actual arrival time. This notification should take place when there is no system entry and 30 minutes have passed since scheduled arrival. **(T-3)**

3.16.4. Mission Rerouting/Diversions. If an aircraft is rerouted due to an emergency, enroute or terminal weather, facility problems, threats, or any other safety of flight consideration, the FM will be notified as soon as practicable. For reasons other than safety of flight, aircraft will not be rerouted or diverted without 618 AOC (TACC), 613 AOC/AMD, or 603 AOC/AMD approval. **(T-3)**

3.16.4.1. When rerouting or diversions are directed by the 618 AOC (TACC), 613 AOC/AMD, or 603 AOC/AMD, the FM will coordinate changes to the route of flight with the aircrew. **(T-3)**

3.16.4.2. MAJCOMs may designate alternate rerouting/diversion coordination requirements in the MAJCOM supplement.

Chapter 4

EXTENDED OPERATIONS

4.1. Extended Operations (ETOPS) Procedures. All references to ETOPS procedures in this manual are for the KC-46.

4.1.1. ETOPS Area of Operations (EAO). Entry into EAO begins when the KC-46 is further than sixty minutes flying time based on one engine being inoperative (OEI) and in still air (no wind) from an ETOPS adequate airport. The one hour flying time for a KC-46 (OEI and in still air) translates to a ground distance of 412 nautical miles.

4.1.2. Maximum Diversion Time (MDT). Upon entering the EAO, the KC-46 must remain within the MDT. The Federal Aviation Administration (FAA) approves an aircraft's MDT. Without a waiver, the MDT for the KC-46 is 180 minutes. The MDT is variable. Due to equipment not working, the aircraft's MDT may be reduced. Conversely, to meet mission requirements, the AOC Senior Controller may issue a waiver increasing the MDT.

4.2. Range Rings. The software application used to visualize ETOPS routes of flight displays two sets of range rings. The smaller ring will not vary in size, but the larger rings may as they represent the approved MDT.

4.2.1. Sixty minute ring. The smaller rings represent the one hour flying time for a KC-46 (OEI and in still air) from an adequate airport (412 nautical miles).

4.2.2. MDT ring. The larger rings represent the MDT from an ETOPS alternate. Since MDT is based on OEI and in still air, the MDT is based on a ground speed of 7 miles per minute (412KTAS). An MDT of 180 minutes (standard for the KC-46) equates to a ground distance of 1236 nautical miles. When factors like wind are applied, the actual flying time from a point along a route to an ETOPS alternate may be longer than 180 minutes but still within the aircraft's maximum diversion range of 1236 nautical miles.

4.3. Preclude and Protect. ETOPS operates under the philosophy of precluding or preventing an aircraft from having to divert and protecting or minimizing the risk to the aircraft in the event of a diversion. Precluding or preventing a diversion are actions maintenance and the aircrew do prior to flight or entry into the EAO while protecting the aircraft in the event of a diversion are actions Flight Managers accomplish when planning and flight following an ETOPS sortie. While the MDT represents a maximum flying time or distance the aircraft can be from an alternate, FMs should select ETOPS alternates which reduce the aircraft's MDT.

4.4. ETP Requirements for ETOPS Sorties. ETPs are required for ETOPS sorties whenever the route of flight enters the EAO. On ETOPS sorties, ETP calculations are required between ETOPS suitable alternates. **Note:** AMC Certification and Special Pilot in Command (SPIC) airfields may not be used for ETOPS ETPs. **(T-3)**

4.5. ETOPS Computer Flight Plans. ETOPS flight planning software must produce a flight plan that includes viable ETOPS diversion scenarios and the following data at a minimum:

4.5.1. Location of ETOPS entry point (EEP), ETOPS critical fuel point (CFP), all ETPs and ETOPS exit point (EXP). **(T-2)**

4.5.2. Full details of the most limiting diversion scenario for the ETOPS CFP and all ETPs. Location, estimated time of arrival (ETA) and fuel required for the remaining diversion scenarios. **(T-2)**

4.5.3. Clear warning of any planning constraint that is not honored. **(T-2)**

4.5.4. ETOPS Fuel Plan Requirements. ETOPS flight planning software will produce a fuel plan based on the greater required ramp fuel or fuel required at the ETOPS CFP. **(T-2)**

4.6. ETOPS Diversion Scenarios.

4.6.1. ETP calculations will be from the ETP between ETOPS alternates. MAFPS uses the following four configurations when calculating fuel requirements from either an ETP or ETOPS CFP:

4.6.1.1. No pressurization loss, no engines out (NP0), uses cruise altitude and airspeed of aircraft at ETP or Critical Fuel Point.

4.6.1.2. Depressurized, no engines out (DP0), uses cruise altitude and airspeed at the aircraft's planned decompression altitude.

4.6.1.3. No pressurization loss, one engine out (NP1), calculates aircraft's drift down altitude to the one-engine inoperative (OEI) cruise altitude, then proceeding at OEI cruise airspeed. Additional fuel for auxiliary power unit (APU) may be included for MDSs that will rely on an APU during OEI operations.

4.6.1.4. Depressurized, one engine out (DP1), calculations based on aircraft's planned decompression altitude and OEI cruise airspeed.

4.6.2. ETOPS Critical Fuel Point calculations will be from the ETOPS Critical Fuel Point to the specified ETOPS Alternate Airport. MAFPS uses the same aircraft configurations (NP0, NP1, DP0, DP1) to calculate fuel, distance, and time from Critical Fuel Point to ETOPS alternate as it does for ETPs.

4.7. ETOPS Diversion Fuel Adjustments. ETOPS flight planning software must modify required diversion fuel based on the following:

4.7.1. Wind Speed Error. A 5% wind speed factor (that is, an increment to headwind or decrement to tailwind) is added to the actual forecast wind used to calculate fuel supply to account for potential errors in wind forecasting. This adjustment is automatically included by MAFPS.

4.7.2. Climatological winds. If using historical average winds (climatological), MAFPS will apply a 5% fuel degrade when calculating required diversion fuel. This adjustment is automatically included by MAFPS.

4.7.3. Auxiliary Power Unit (APU) Fuel Additions. 400 pounds per hour if the APU is a required power source for OEI operations. This will be added for the OEI calculations and will be automatically included by the flight planning system under these conditions.

4.7.4. Icing Fuel. Use forecast icing conditions provided by lead weather unit (LWU). FMs must add this to the flight plan request if conditions warrant. If icing is forecast from the ETP to an ETOPS alternate, FMs will enter a 4% degrade due to wing and engine anti icing being on.

4.7.5. Engine deterioration. Since the KC-46 does not have a system for calculating deteriorations in cruise fuel burn performance, a 5% degrade must be added to the fuel required from the ETP to the ETOPS alternate. FMs will use the icing degrade % block on the FPFE to account for this fuel. If icing is forecast from the ETP to the ETOPS alternate, the FM will use a 9% degrade (5% for engine deterioration and 4% for icing). **(T-2)**

4.8. Pre-Departure Planning.

4.8.1. Lower than Standard Preflight Weather Minima. If unable to find an airport meeting ETOPS alternate weather minimums, FMs may select ETOPS alternates having a ceiling and visibility greater than or equal to the lowest suitable approach minimums available (excluding radar) for the expected runway in use, but not less than a ceiling of 200 feet and a visibility of 1/2 statute mile (800 meters) or runway visual range (RVR) 2400 (730 meters), whichever is higher; and winds within the operational limits of the aircraft, corrected for runway conditions.

4.8.2. When using airports whose forecast weather is below ETOPS alternate minimums, but higher than the allowed approach minimums, FMs must accomplish the following:

4.8.2.1. During the pre-departure briefing, the FM will advise the PIC that the use of minimum enroute alternate minima is required. **(T-2)**

4.8.2.2. The FM and PIC will evaluate the weather and diversion scenario and formulate an understanding of the preferred diversion airports and scenarios that may be used during the portion of the flight affected by airports having non-standard minima. **(T-2)**

4.8.3. There is no requirement to obtain a waiver when employing lower than standard preflight weather minima. There is also no requirement for the PIC to accept the plan provided them by the FM.

4.8.4. Reduction in MDT. FMs will check the GDSS mission detail remarks for degraded aircraft systems reducing the aircraft's MDT. FMs will attempt to create a route of flight which is within the reduced MDT. If unable to create an ETOPS compliant flight plan, FMs will work with the duty officer and PIC to delay the mission to get the aircraft repaired, add in additional stops to stay within the reduced MDT, or request a waiver which would allow the aircraft to operate at its normal MDT.

4.8.5. Aircraft Rescue and Firefighting (ARFF). The ARFF requirement is ICAO Category Four for flights with an MDT of 180 minutes or less and ICAO Category Seven for flights waived to an MDT greater than 180 minutes. **(T-3)**

4.8.6. Waivers. The AOC Senior Controller is the approval authority for ETOPS waivers. In most circumstances, the waiver process will begin while the crew is in crew rest. Initiating the waiver process allows the FM to plan a sortie using the waived MDT. There are three types of waivers: mechanical, routing, and ARFF.

4.8.6.1. PIC Concurrence. While the AOC Senior Controller may approve a mechanical, routing, or ARFF waiver, the PIC has ultimate approval on whether to accept the waiver.

4.8.6.2. Mechanical Waiver. This waiver allows an aircraft with an inoperative or degraded system affecting the MDT to be planned at the aircraft's MDT of 180 minutes.

4.8.6.3. Routing Waiver. This waiver allows an aircraft to exceed to its MDT of 180 minutes. If unable to come up with an ETOPS compliant route even after using lower than

standard preflight weather minima, the FM will consult with the duty officer and initiate a waiver to exceed 180 minutes. The FM will use 207 minutes as the MDT. If unable to create an ETOPS compliant flight plan using an MDT of 207 minutes, the FM will use 240 minutes as the MDT.

4.8.6.4. MDTs more than 240 minutes. There may be instances where an MDT of 240 minutes is not enough to create an ETOPS compliant flight plan. In this case, the FM will use the lowest MDT greater than 240 minutes to create an ETOPS compliant flight plan.

4.8.6.5. ARFF Waiver. This waiver allows an airfield to be used as an ETOPS alternate when it doesn't meet ICAO Category 4 (MDT of 180 minutes or less) or 7 (MDT greater than 180 minutes) levels of ARFF.

4.9. Pre-Departure Briefing.

4.9.1. During the PIC's pre-departure briefing call, the FM must brief the PIC the following:

4.9.1.1. Status of ETOPS alternate airport (weather and NOTAMs). **(T-2)**

4.9.1.2. Destination alternates weather and status. **(T-2)**

4.9.1.3. Whether lower than ETOPS alternate weather minimums were used. **(T-2)**

4.9.1.4. The MDT used in planning the sortie. If exceeding an MDT due to non-availability of ETOPS alternates (even when using lower than standard preflight weather minima), the status of the requested waiver. **(T-2)**

4.9.2. FMs will add a comment to the Crew Papers advising the PIC when a waiver has been requested or approved for the sortie. FMs may also add a leg remark to the mission detail alerting the crew a waiver has been requested or approved. **(T-2)**

4.10. Prior to Takeoff. FMs will review weather and NOTAMs to ensure all listed ETOPS alternate airports still qualify as alternates. **(T-2)**

4.11. After Takeoff but Prior to EAO Entry.

4.11.1. FMs will review weather and NOTAMs for ETOPS alternate airport to determine if they still qualify as alternates. **(T-2)**

4.11.2. FMs will advise the crew of the status of their planned ETOPS alternates before ETOPS Entry. **(T-2)**

4.11.2.1. If ETOPS Entry will occur 1.5 hours or more after departure, FMs will attempt to establish contact with the aircraft one hour prior to the FM's best estimate of ETOPS entry time. If no contact has been by 45 minutes prior to ETOPS, entry, aircrew will contact their FM. **(T-2)**

4.11.2.2. If ETOPS Entry will occur less than 1.5 hours from departure, FMs will contact the aircraft 30 minutes prior to estimated time of departure (ETD). If no contact has been made by engine start time, aircrew will contact their FM. **(T-2)**

4.11.2.3. If forecast weather for an ETOPS alternate deteriorates below alternate minima, but above charted landing minima, the aircraft may proceed past the ETOPS Entry Point. Chaired landing minima can be no lower than a ceiling of 200 feet and a visibility of 1/2 statute mile (800 meters) or RVR 2400 (730 meters), whichever is higher; and winds must

be forecast to remain within the operational limits of the aircraft, corrected for runway conditions. **(T-2)**

4.11.2.4. If previously identified ETOPS alternates no longer qualify and the aircraft is airborne, but not past the ETOPS entry point, the FM will attempt to create an ETOPS compliant route using different ETOPS alternates. The FM will compare the fuel requirements of the active flight plan and make sure the aircraft has sufficient fuel for the new flight plan. **(T-2)**

4.11.2.5. The FM will notify the crew, advise them why the alternates no longer qualify, and provide them the new route of flight and weather and NOTAMs for the ETOPS alternates. **(T-2)**

4.11.3. If the FM is unable to create an ETOPS compliant route based on the MDT used in the active flight plan, the FM will notify the aircrew. Options available for the aircrew are to request a waiver increasing the MDT or to proceed to a recovery airport (e.g., nearest adequate airport or point of departure). Without a waiver, the aircraft should not enter the EAO. **(T-2)**

4.12. After EAO Entry.

4.12.1. FMs will continue to monitor weather and NOTAMs of ETOPS alternates and will advise the aircrew if they no longer qualify. **(T-2)**

4.12.2. Even if an airport no longer qualifies as an alternate (weather or NOTAMs), the aircraft may still proceed to its destination.

4.13. Termination of ETOPS Procedures.

4.13.1. ETOPS procedures end when the aircraft is within its threshold time (60 minutes OEI in still air) from an adequate airport (defined as ETOPS Exit Point).

Chapter 5

COMMAND AND CONTROL (C2)

5.1. General. The MAF C2 network consists of the following C2 centers: AOCs (such as the AMC 618 AOC, PACAF 613 AOC, USAFE-AFAFRICA 603 AOC), air mobility control centers (AMCCs), command posts (CPs), contingency response groups (CRGs), contingency response elements (CREs), special tactics teams (STTs), Joint Operational Support Airlift Center (JOSAC), and the White House Military Office (WHMO). C2 centers are action agents for the MAF commanders with execution authority (operational control (OPCON) over mobility missions/forces.

5.2. Pilot in Command (PIC). PICs are designated for all flights, IAW DAFMAN 11-401, *Aviation Management*. Per AMC Sup to AFMAN 11-202V3, *Flight Operations*, PICs are:

5.2.1. Vested with the authority to accomplish the assigned mission.

5.2.2. The final authority for requesting or accepting aircrew or mission waivers.

5.2.3. Required to thoroughly review the Crew Papers and to contact their FM prior to each Flight Managed sortie.

5.3. Mission Clearance Decision. The execution authority and PIC must make the mission clearance decision. In all cases, final responsibility for the safe conduct of the mission rests with the PIC.

5.3.1. Prior to directing an aircraft be re-routed or diverted to a different airfield than planned, the C2 agent will comply with Mission Planner Responsibilities specified in [paragraph 2.6](#) and coordinate with the FM managing the sortie to ensure existing and forecast weather, Notices to Airmen (NOTAMs), and airfield information from the GDSS/Airfield Suitability and Restrictions Report (ASRR) are suitable. **(T-2)** The PIC is the final authority for accepting a re-routing or divert airfield. C2 agent will obtain diplomatic clearance, prior permission required (PPR) approval, and will alert customs and appropriate ground service agencies to prepare for arrival. **(T-3)**

5.3.2. Once the decision has been made for the aircraft to divert to a different destination than the one planned, the FM will monitor weather conditions and NOTAMs for the destination. If the divert location becomes unsuitable while enroute, the FM will coordinate with the C2 agent and aircrew to find a suitable alternate. **(T-2)**

5.3.3. C2 agents will delay entering airborne divers into GDSS until after the aircraft lands so that FMs may continue flight following. **(T-3)**

5.4. Flight Manager and Pilot in Command Shared Responsibilities.

5.4.1. Verification of Route of Flight. The FM prepares a route of flight meeting the requirements in Sortie Planning. FMs will compare their prepared route of flight to the approved route of flight provided by the Flight Planners to ensure all routing and diplomatic requirements have been met. For those sorties without a provided route of flight (e.g., contiguous United States (CONUS) to CONUS, Atlantic crossing) the FM will construct a route. The PIC will verify the CFP for route of flight accuracy before departure. **(T-2)**

5.4.2. Verification of the Fuel Load.

5.4.2.1. The FM inputs appropriate fuel additions for the sortie so the command approved flight planning system software can calculate the required ramp fuel load. The PIC will verify the fuel computations are accurate before departing. (T-2)

5.4.2.2. When a PIC believes the fuel load is insufficient to execute the sortie the PIC will contact the FM to identify and resolve the differences. The PIC is the final authority for adding additional fuel. (T-2)

5.4.3. Verification of Diplomatic Clearances. FMs will prepare the Crew Papers using the most accurate diplomatic clearance information provided to them. The FM uses the current diplomatic clearances displayed in GDSS. The PIC is also responsible for checking diplomatic clearances for validity by reviewing the CFP and DD Form 1801 and cross-checking flight planned entry and exit points/times and call signs against the GDSS Mission Detail diplomatic clearance data. If changes are needed to the CFP and/or the DD Form 1801, the PIC will coordinate the changes with the FM. (T-2)

5.4.4. Verification of the Payload. The FM uses available payload information six hours prior to sortie launch. This planning information is used to calculate the flight plan and fuel plan. The PIC will review payload information provided in the Crew Papers. If a significant discrepancy is found between the planned payload and the actual payload (one that requires a re-planning of the sortie, IAW AMCI 11-208, *Mobility Air Forces Management*) the PIC will coordinate with the FM for a new flight plan and/or a new Required Ramp fuel figure. (T-2)

5.5. Flight Manager and Flight Controller Division of Duties. The 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD are uniquely designed around their sortie requirements and constraints. Positions within the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD may be aligned and named differently, but the CDM Team (see [paragraph 5.12](#)) is core to the success of Flight Management. The FM and the Flight Controller perform different functions within the CDM Team. In addition to this paragraph, see MAJCOM instructions and supplements for more detail regarding specific duties for the FM and the Flight Controller.

5.5.1. Flight Manager. The FM's work is sortie centric. The focus of the FM is the movement of the aircraft from the departure point to the arrival point. The FM creates and files flight plans; assembles, publishes, and distributes Crew Papers; briefs aircrews using Crew Papers; flight follows the sortie in execution, and acts as the aircrew's primary source of support in sortie execution.

5.5.2. Flight Controller (1C3). The Flight Controller's work is mission centric. The focus of the Flight Controller is on performing the duties that integrate the individual sorties into the larger mission. Specifically, the Flight Controller coordinates sortie information internally with 618 AOC (TACC), 613 AOC/AMD, or 603 AOC/AMD and externally with other agencies including coordination of ground support, administrative support, aircrew management, and other duties as described in this AFMAN, MAJCOM instructions, and supplements. The Flight Controller is responsible for updating the information and will ensure GDSS accurately reflects actual aircrew/aircraft information.

5.6. Originating Mission Setups.

5.6.1. Normal Procedure. No later than 6 hours prior to sortie departure, CP/AMCCs will ensure mission setup information is accurately entered into the MAF C2 system for each sortie departing their station. If the information has not been loaded, the CP/AMCC will inform the

responsible agency. Under normal circumstances, FMs require the following information be provided to them no less than 6 hours prior to a sortie's scheduled departure time:

5.6.1.1. Mission identifier and schedule.

5.6.1.2. Aircraft tail/fleet number.

5.6.1.3. Cargo/passenger information including total cargo weight and hazardous cargo weight (class and net explosive weight if applicable).

5.6.2. When local input cannot be accomplished due to system outages, C2 personnel will immediately contact the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD with the information needing to be input into GDSS.

5.7. Intelligence Watch Procedures. The flight management process must ensure pertinent intelligence information (e.g., threat information, terrorist warnings, and force protection conditions) is considered and reflected in the planning and execution of flight managed sorties. Threat awareness and force protection must be integral to mission/sortie development. Dangers presented by potentially hostile forces will be acceptably mitigated by C2 during both planning and execution before operations can proceed.

5.7.1. The FM will assist the CDM Team (see [paragraph 5.12](#)) and advise airborne aircraft of either potential or actual threats to operations. Notification will be accomplished via secure means when dictated by message security classification. **(T-3)**

5.7.2. Command and Control Directorate personnel will ensure the aircrew is notified of all actions to be taken to preclude damage to MAF aircraft or injury to aircrews enroute to locations designated in the Terrorist Advisories and Intelligence Warnings. They may be directed to reroute or divert aircraft to ensure safety of flight. See [paragraph 5.2](#).

5.8. Secure Launch Program. Increasing political instability creates situations where MAF forces may find themselves in life threatening situations during seemingly routine sorties. To minimize this exposure, the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD conduct a Secure Launch control program. After receiving the latest threat assessment, the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD Senior Director will approve/disapprove the launch into high threat regions. The decision is entered into the MAF C2 system and telephonically forwarded to the departure C2 agency or directly to the PIC by the Flight Controller. The 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD Senior Controller is the secure launch approval officer. AMCI 11-208, *Mobility Air Forces Management*, has further details on secure launch program.

5.9. Positive Launch Procedures. Positive Launch is used by the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD to ensure flow control and for other management reasons. When implemented, departure station C2 agencies will be notified of applicable sorties. One hour prior to aircrew alert at crew rest locations and one hour prior to departure at enroute stops, C2 agencies will call the respective 618 AOC (TACC), 613 AOC/AMD, or 603 AOC/AMD for alert/launch coordination and approval. The AOC flight controller will coordinate actions with the associated FM. Aircrews should be prepared to hold in place at flight duty stations for Positive Launch approval. The 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD Senior Controller is the positive launch approval officer. Refer to AMCI 11-208 for further details on positive launch.

5.10. Operational C2 Reporting. FMs should be familiar with Operational C2 Reporting as they may be asked to relay information to the C2 agency exercising OPCON.

5.10.1. MAF C2 Agency.

5.10.1.1. Stations with MAF C2 Agency. Local MAF C2 agents will enter mission data (arrival, departure, advisory and delay messages) in the MAF C2 system. **(T-2)**

5.10.1.2. Stations without MAF C2 Agency. Transmit mission data to the C2 agency having OPCON or tactical control (TACON) of the mission by any means available (preference in the following order: Defense Switching Network (DSN), ACARS, High Frequency (HF), Iridium Phone, AERO-I). For critical C2 communications (e.g., aircraft waiver request, maintenance delay), voice communications are the primary method. Aircrew will use secure communications (e.g., Beyond Line-of-Sight Tactical Data Link) if directed by special instructions (SPINS) to protect mission data. **(T-2)**

5.10.2. Flight Management Sorties. FMs will be the AOC communication link for flight managed aircrews. For critical AOC communications, voice communications are the primary method with ACARS as the secondary for equipped aircraft. **Exception:** For Air Force Reserve Command/Air National Guard (AFRC/ANG) missions using flight manager support, AFRC/ANG will provide command and control responsibilities. **Note:** In some AOCs, FMs are not the primary communications link between the AOC and aircrew but are responsible for responding to ACARS messages.

5.10.3. Enroute Aircraft Communications on FM Missions. ACARS messaging is the primary method for AOC communication and position reporting on appropriately equipped aircraft. Flight managers will configure GDSS IAW [paragraph 3.16.1.3](#) to ensure communications and position reporting are enabled. For aircraft with inoperative ACARS, FMs may call the aircraft directly via the aircraft's International Maritime Satellite (INMARSAT) phone. FMs should consult their AOC's OIs or operations manual for procedures on contacting aircraft via INMARSAT.

5.10.4. Close Watch Missions. Close Watch missions (for example, combat search and rescue, aeromedical evacuation (AE), PHOENIX BANNERS) receive special C2 attention. PICs will promptly notify appropriate C2 agency of delays, aborts, or other events that effect on-time departure, and provide the C2 agent the estimated time in commission (ETIC), planned estimated time of departure (ETD), and estimated time of arrival (ETA) within 10 minutes of the event or as soon as safety allows. The PIC will use all reasonable means possible to use secure communications when passing mission reports to protect mission data.

5.10.5. Defense Support of Civil Authorities (DSCA). Air Force Instruction (AFI) 10-801, *Defense Support of Civil Authorities*, provides the policies and procedures service members will follow when supporting a request from civil authorities for domestic emergencies, law enforcement support, and other domestic activities. FMs directly receiving requests for DSCA should forward the request to the AOC senior controller.

5.10.6. Air Traffic Control Incident Reports. ATC agencies (e.g., FAA) may notify FMs of ATC related incidents involving AMC aircraft. ATC incidents include, but are not limited to pilot deviations, hazardous air traffic reports (HATRs), airspace violations, altitude deviations, loss of required aircraft separation, gross navigational errors (GNEs), noise abatement notices, and communications loss (COMLOSS) reports. For COMLOSS reports on airborne aircraft,

ATC may ask FMs to attempt to relay an ATC radio frequency to crews using ACARS. FMs will pass all ATC incident reports via appropriate channels to AMC Airspace Management (AMC/A3AA) via e-mail: amc.a3aa@us.af.mil and/or telephone: (618) 229-3415/3414.

5.11. Enroute Maintenance Support. The 618 Air Operations Center Global Maintenance Support (618 AOC/GADM) provides logistics support by initiating and controlling recovery actions for AMC, AMC-gained, and operational support airlift aircraft on 618 AOC C2 missions that are not mission capable (NMC) or have reported mission essential discrepancies away from home station. GADM supports aircraft recovery by expediting the movement of Maintenance Recovery Teams (MRTs), parts, and equipment through the transportation system to support NMC aircraft off station. The 603 AOC/AMD and 613 AOC/AMD will support requests for parts and/or maintenance assistance for missions under their command and control.

5.12. Collaborative Decision Making (CDM) Team Responsibilities. Flight Managed sorties are key to an integrated environment that lends itself to CDM. Each MAJCOM's sortie requirements result in a unique CDM team composition. Members listed below represent the most common functions on the CDM team. MAJCOMs will document CDM team composition and responsibilities in the MAJCOM supplement when different than those listed below.

5.12.1. Flight Manager. The FM has primary responsibility for planning flight-managed sorties in execution and acting in coordination with the CDM team to ensure mission success.

5.12.2. Pilot in Command (PIC). The PIC is a critical part of the CDM team. The PIC has ultimate responsibility for the safe operation of the aircraft and of all personnel on board.

5.12.3. MAF C2. The 618 AOC (TACC), PACAF's 613 AOC/AMD, and USAFE-AFAPRICA's 603 AOC/AMD provide C2 service for MAF mission types. AOC Directors, Duty Officers, and Flight Controllers (1C3s) make up the MAF C2 execution team. This team provides guidance and coordinates to resolve issues on MAF missions operating worldwide.

5.12.4. Lead Weather Unit (LWU). The primary purpose of the LWU is to provide weather information to enhance the efficiency, effectiveness, and safety of Flight Managed operations. Flight managed LWU designation is documented in AFMAN 15-129, *Air and Space Weather Operations*, and MAJCOM supplements/instructions. The designated LWU serves as the source of weather information for sortie flight planning and execution. Weather provides needed functionality to the CDM Team through:

5.12.4.1. Integrating weather into Flight Manager processes. Weather information assists the CDM Team to refine routes, select alternates, optimize fuel and payload, and enhance maintenance and launch preparation activities.

5.12.4.2. Providing weather guidance for all phases of sortie planning and execution and discussing courses of action to mitigate the effects of weather.

5.12.4.3. Refining and posting weather briefing packages for the FM to include in the Crew Papers.

5.12.4.4. Responding to PIC requests.

5.12.4.5. Assisting FMs, Mission Planners, and others in predictive analysis of potential weather disruptions to the sortie.

5.12.4.6. Providing enroute and airfield weather assessments to mission planners (e.g., climatological impacts to operations).

5.12.4.7. Recommending departure, enroute, and arrival alternates based on reported and forecast weather conditions.

5.12.4.8. Recommending alternate routing and flight levels, based on current and forecast weather conditions, to avoid hazardous weather.

5.12.4.9. Maintaining current and accurate weather Operational Risk Management (ORM) in GDSS to support FM predictive analysis and mitigation actions. **Note:** These requirements are in no way intended to constrain PICs from exercising their inherent responsibilities for safety of assigned aircraft both in-flight and on the ground.

5.12.4.10. Notifies FMs when weather hazards or forecasts impact departure, arrival, or alternate airfields.

5.12.5. Maintenance Control Functions. The primary function of Maintenance Control is to monitor sortie maintenance issues and manage the on-line maintenance repair condition of aircraft in execution away from home station. Maintenance Control will also provide needed functionality to the Flight Management CDM Team through:

5.12.5.1. Coordinating with the departure location to ensure the maintenance status of the aircraft are provided to the FM and continuously updating maintenance information in C2 systems throughout sortie flight planning.

5.12.5.2. Coordinating with MAJCOM Stan/Eval for aircraft operating with system discrepancies, to provide logistics information required to obtain waivers and coordinating with home station Maintenance Group Commander for necessary downgrade grounding Red X items.

5.12.5.3. Recommending, in conjunction with the departure location, alternative courses of action, if degraded aircraft condition prior to takeoff will cause sortie disruption.

5.12.5.4. Identifying in-system airframe availability and restrictions allowing the 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD to accommodate short-notice, high priority sortie requirements.

5.12.5.5. Providing analysis of impact on sortie progress and recommending alternative courses of action when airborne aircraft systems malfunctions are detected and reported by the aircrew.

5.12.5.6. Acting as an interface between the departure location and 618 AOC (TACC), 613 AOC/AMD, and 603 AOC/AMD FM for maintenance issues.

5.12.6. Flight Planner Functions. Flight Planners support FMs by coordinating unique sortie requirements with the CDM Team and developing CFP routes no later than eight hours prior to scheduled sortie departure. See [paragraph 3.10](#) for more information on CFPs.

5.12.7. Diplomatic Clearance Functions. The primary duty of the Diplomatic Clearance Function is to work with the Mission Planner and Flight Planner to coordinate diplomatic clearances for future MAF sorties. The Diplomatic Clearance function also supports the FM through coordinating short-notice diplomatic clearance changes and recommendations.

5.12.8. Intelligence Functions. The primary duties of the intelligence function are to advise the 618 AOC/MOD, 613 AOC/AMD, and 603 AOC/AMD of global security/threat conditions that will affect current and future MAF sorties and recommend risk management actions. The intelligence function, in conjunction with the information operations (IO) team monitors the world threat environment for late-breaking events, reports which could affect successful sortie accomplishment and advises the FM of changes which may affect sortie operations. The Intelligence function will:

5.12.8.1. When needed, provide FMs an intelligence briefing at the beginning of the duty period tailored to areas of responsibility and sorties to be flight managed.

5.12.8.2. Perform intelligence preparation of the battle space assessment for airfields located outside of the contiguous United States (OCONUS).

5.12.8.3. Develop location, route, or mission/sortie-specific threat assessments, as required.

5.12.8.4. Conduct review of threat information for designated Secure Launch locations six hours prior to takeoff.

5.12.8.5. Coordinate with the FM and other members of the CDM Team to ensure they are aware of intelligence information and force protection developments which could impact sortie planning and execution.

5.12.8.6. Monitor the world threat environment for late-breaking events, reports that could affect successful mission/sortie accomplishment.

5.12.8.7. Provide continuous intelligence flight watch and timely threat warning support for sorties in execution. Coordinate with theater Intelligence Watch centers to secure notification of events, crises, or hostilities that may impact air mobility sorties.

5.12.8.8. Recommend alternatives when threats pose unacceptable levels of risk or will impede sortie progress.

5.12.8.9. Perform threat assessments to support near real time alternate flight profile and arrival location planning.

5.12.8.10. Collaborate to build the Threat Assessment portion of Crew Papers, when required. **Note:** PICs will receive intelligence and tactics briefings at the last stop prior to entering a new Area of Responsibility (AOR).

5.12.9. Mission Planner Functions. The goal of the Mission Planner is to provide a complete executable mission plan to the FM.

5.12.9.1. Mission planning is normally accomplished using the Interactive Mission Record (IMR), Consolidated Air Mobility Planning System (CAMPS) and/or GDSS.

5.12.9.2. Mission Planners ensure aircrews receive appropriate AOR intelligence and tactics brief, air tasking order (ATO) and airspace control order (ACO) products, tactical flimsies and communication cards (as appropriate), and SPINS. Mission Planners also contact the appropriate AOC to ensure no additional restrictions or conflicts exist that may cause sortie delay or cancellation.

5.12.10. Information Operations Team (IOT) Functions. The primary duty of the IOT, in conjunction with the Intelligence function, is to advise the Flight Manager of any Information Operations (IO) event changes that could affect sortie operations. The IOT will support the Flight Manager with notifications and recommended Courses of Actions (COAs) via the Senior/Battle Staff Director of Influence Ops, Network Defense, and Electronic Protection to successfully employ IO and any related mission impacts.

Chapter 6

FLIGHT MANAGER COMMUNICATIONS, INFORMATION SYSTEMS, AND PROGRAM REQUIREMENTS

6.1. General. The communications requirements detailed in this chapter are the minimum required to support flight management responsibilities.

6.2. Flight Manager Communications/Policy and Requirements. The 618 AOC (TACC), 613 AOC/AMD and 603 AOC/AMD will maintain the capability for rapid, reliable, secure voice and data communications. The 618 AOC (TACC), 613 AOC/AMD and 603 AOC/AMD will be equipped with the capability to communicate with an aircrew using various secure and non-secure voice and data communications systems. Secure Internet Protocol Router Network (SIPRNET) and Non-Classified Internet Protocol Router Network (NIPRNET) access will be available for data communication at the appropriate security level. For operations security reasons, transmission of mission critical information will be accomplished IAW AF and Command policy. FMs will have the capability to transmit flight plans to ATS agencies for electronic filing.

6.2.1. Voice Communications Policy and Requirements. 618 AOC (TACC), 613 AOC/AMD and 603 AOC/AMD will ensure FMs have access to reliable voice communications (including secure telecommunications) required to maintain positive control of MAF forces.

6.2.2. Data Communications Policy and Requirements. 618 AOC (TACC), 613 AOC/AMD and 603 AOC/AMD will ensure FMs have reliable data communications capability with properly equipped MAF aircraft to ensure positive control of MAF forces (e.g., non-secure - AOC messaging, ACARS, AERO-I; secure Beyond Line-of-Sight Tactical Data Link).

6.3. Global Decision Support System (GDSS). GDSS is the MAF's primary force/unit-level C2 system. It is used to manage the execution of airlift and air refueling missions. It provides accurate, near real-time data required for making decisions concerning the deployment and employment of MAF resources. GDSS interfaces with several C2 systems, including CAMPS, GO81, Global Air Transportation Execution System (GATES), USTRANSCOM's Global Transportation Network (GTN), and the ANG's Airlift Information Reporting System (AIRS).

6.4. GO81 Consolidated Aircraft Maintenance System (CAMS). The GO81 system is a maintenance management information system used exclusively by AMC and those agencies that interface with AMC. GO81 is the primary MAF aircraft maintenance scheduling and monitoring system. GDSS accesses GO81 allowing the FM to track the maintenance status and individual discrepancies of an aircraft. Other commands use CAMS to provide maintenance data on their aircraft.

6.5. MAF Flight Planning and Flight Planning Support Systems.

6.5.1. Mobility Air Forces Automated Flight Planning Service (MAFPS). MAFPS provides an optimized solution to navigation and fuel computations based on mission requirements, individual aircraft capabilities, and specific airspace restrictions. Flight plans are route, altitude, and fuel optimized based on forecast winds, temperatures, and planned payload weight. The use of computer flight plans is essential to electronically file routes of flight. MAFPS provides ETOPS flight plans. MAFPS also provides flight plan addressing for the DD Form 1801, *International Flight Plan*.

6.5.2. Falcon View. Falcon View is a mapping application used by the DoD that is the graphical part of the Joint Mission Planning System (JMPS). This program allows the graphical presentation of routes of flight. FMs use Falcon View to visualize the route to determine the best route of flight.

6.5.3. Web Map. Web Map is a cloud-based mapping application used in conjunction with MAFPS. Web Map offers users a way to view flight plans in either two or three dimensions and allows them to apply overlays when planning and reviewing flight plan routes. Web Map overlays include Digital Aeronautical Flight Information File entities, weather (both terminal and enroute), and the locations of special use airspace. It also allows the user to create ad hoc drawings.

6.6. Global Air Transportation Execution System (GATES) Payload Information. Payload information resides in GATES. The GDSS interface with GATES allows FMs to view aggregated payload weight, number of passengers and HAZMAT details. This information is a critical element in the FM's and/or unit mission planner's fuel load, takeoff weight, and flight profile planning determinations.

6.7. 557th Weather Wing. The 557th Weather Wing (formally known as Air Force Weather Agency (AFWA)) data link includes the capability to populate flight weather briefings, and to view Terminal Aerodrome Forecasts (TAF) and Meteorological Aviation Report (METAR) for any airfield which provides forecasts and/or observations to the World Meteorological Organization (WMO).

6.8. Notice to Air Missions (NOTAM) and Temporary Flight Restriction (TFR). NOTAMs and TFRs are retrieved from the Defense Internet NOTAMs Service (DINS) website. Once requested NOTAMs are retrieved, they are reviewed for content and applicability and then posted into the Crew Papers.

6.9. Airman Safety Action Program (ASAP). The Airman Safety Action Program is an anonymous, self-reporting system modeled after successful FAA/Airline programs to encourage the voluntary reporting of operational issues and events. The 618, 613, and 603 AOC Chiefs of Safety serve as the primary liaisons to process ASAPs related to their AOC's directed missions. FMs are encouraged to use this program.

6.9.1. ASAP is designed to provide a nonpunitive environment for the open reporting of safety concerns and information that might be critical to identifying hazardous situations and precursors to accidents. These safety concerns may be either observed or experienced by the submitter. The goal is to prevent mishaps by addressing those unintentional errors, hazardous situations and events, or high-risk activities not identified and/or correctable by other methods or through traditional safety reporting sources. The ASAP program is in accordance with DAFI 91-225, *Aviation Safety Programs*.

6.9.2. The AMC ASAP website is accessible at <https://asap.safety.af.mil>. The website is secure, and identity protected. FMs will use the "All Other Specialties" tab for ASAP submission and fill in the required information. There are additional fields the submitter can use to help with understanding and/or possible corrections that are not mandatory. Follow directions on the submission form. Do not supply classified or known safety privileged information on the form. FMs can contact the AMC ASAP program manager via email at

amc.asap@us.af.mil. **Note:** Identity protected means the ASAP program will not be used as an investigation source.

6.9.3. An ASAP submission will protect the submitter from punitive/adverse action except in cases of willful disregard of regulations and/or procedures or in cases when the events and actions are identified through a different source. Training resulting from the ASAP review process and finding is not considered a punitive/adverse action.

JAMES C. SLIFE, Lt Gen, USAF
Deputy Chief of Staff, Operations

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

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Abbreviations and Acronyms

ACARS—Aircraft Communications Addressing and Reporting System

ACN—Aircraft Classification Number

ACO—Airspace Control Order
AE—Aeromedical Evacuation
AF—Air Force
AFI—Air Force Instruction
AFFSA—Air Force Flight Standards Agency
AFRC—Air Force Reserve Command
AIP—Aeronautical Information Publication
AIRS—Airlift Information Reporting System
ALTRV—Altitude Reservation
ATLRV APVL—Altitude Reservation Approval
AMCC—Air Mobility Control Center
AMD—Air Mobility Division
ANG—Air National Guard
AOC—Air Operations Center
AOR—Area of Responsibility
APU—Auxiliary Power Unit
AR—Air Refueling
AR EXIT PT—Air Refueling Exit Point
ARFF—Aircraft Rescue and Fire Fighting
ARIP—Air Refueling Initial Point
ARCP—Air Refueling Control Point
ARCT—Air Refueling Control Time
ASAP—Airman Safety Action Program
ASRR—Airfield Suitability and Restrictions Report
ATC—Air Traffic Control
ATO—Air Tasking Order
ATS—Air Traffic Services
AvORM—Aviation Operational Risk Management
BASH—Bird/Wildlife Aircraft Strike Hazard
C2—Command and Control
CAMPS—Consolidated Air Mobility Planning System
CAMS—Consolidated Aircraft Maintenance System

CDM—Collaborative Decision Making
CFP—Computer Flight Plan or Critical Fuel Point
COA—Course of Action
CONUS—Contiguous United States
COMLOSS—Communications Loss
CP—Command Post
CRE—Contingency Response Element
CRG—Contingency Response Group
DAFIF—Digital Aeronautical Flight Information File
DAF365—Department of the Air Force 365
DINS—Defense Internet NOTAMs Service
DO/DDO—Duty Officer/Deputy Duty Officer
DSCA—Defense Support of Civil Authorities
DSN—Defense Switching Network
DP0—Depressurized, No Engines Out
DP1—Depressurized, One Engine Out
EAO—ETOPS Area of Operations
EEP—ETOPS Entry Point
ERO—Engine Running Offload or Onload
ETA—Estimated Time of Arrival
ETD—Estimated Time of Departure
ETIC—Estimated Time in Commission
ETOPS—Extended Operations
ETP—Equal Time Point
EXP—ETOPS Exit Point
FAA—Federal Aviation Administration
FCG—Foreign Clearance Guide
FLIP—Flight Information Publications
FM—Flight Manager
FPM—Flight Performance Model
FRAG—Fragmentation Order
FSAF—First Suitable Airfield

FTIP—Foreign Terminal Instrument Procedure
GATES—Global Air Transportation Execution System
GDSS—Global Decision Support System
Giant Report—GDSS Airfield Detail in report format
GNE—Gross Navigational Error
GPS—Global Positioning System
GTN—Global Transportation Network
HAZMAT—Hazardous Material
HATR—Hazardous Air Traffic Report
IAP—Instrument Approach Procedures
ICAO—International Civil Aviation Organization
IFR—Instrument Flight Rules
IMR—Interactive Mission Record
INMARSAT—International Maritime Satellite
IO—Information Operations
IOT—Information Operations Team
JMPS—Joint Mission Planning System
JOSAC—Joint Operational Support Airlift Center
LSAF—Last Suitable Airfield
LWU—Lead Weather Unit
MAF—Mobility Air Force
MAFPS—Mobility Air Forces Automated Flight Planning Service
MAJCOM—Major Command
MDS—Mission Design Series
METAR—Meteorological Aviation Report
MHE—Material Handling Equipment
MICAP—Mission Impaired Capability Awaiting Parts
MOG—Maximum on Ground
MP—Mission Planner
MRT—Maintenance Recovery Team
MTOGW—Maximum Takeoff Gross Weight
NIPRNET—Non-Classified Internet Protocol Router Network

NMC—Not Mission Capable
NOTAM—Notice to Air Mission
NP0—No Pressurization Loss, No Engines Out
NP1—No Pressurization Loss, One Engine Out
OCONUS—Outside Contiguous United States
OEI—One-Engine Inoperative
OI—Operating Instruction
OPLAN—Operations Plan
OPCON—Operational Control
OPORD—Operation Order
OST—Off Station Trainer
PACAF—Pacific Air Forces
PCN—Pavement Classification Number
PIC—Pilot in Command
POA—Point of Arrival
POD—Point of Departure
PPR—Prior Permission Required
QRC—Quick Reaction Checklist
RAD—Route Availability Document
RVR—Runway Visual Range
SAAM—Special Assignment Airlift Mission
SDP—Special Departure Procedure
SID—Standard Instrument Departure
SIGMET—Significant Meteorological Information
SIPRNET—Secure Internet Protocol Router Network
SPIC—Special Pilot in Command
SPINS—Special Instructions
STAR—Standard Terminal Arrival
STIF—Supplemental Theater Information File
STT—Special Tactics Team
TACC—Tanker Airlift Control Center
TACON—Tactical Control

TAF—Terminal Aerodrome Forecast

TEMPO—Temporary

TFR—Temporary Flight Restriction

USAFE-AFAFRICA—United States Air Forces in Europe & Air Forces Africa

UHF—Ultra High Frequency

USTRANSCOM—United States Transportation Command

VFR—Visual Flight Rules

WBC—Weight Bearing Capacity

WHMO—White House Military Office

WMO—World Meteorological Organization

Office Symbols

AF/A3T—Air Force Deputy Chief of Staff, Training

AFFSA/XOF—Air Force Flight Standards Agency, Flight Directives

AMC/A3/10—Air Mobility Command/Directorate of Operations, Strategic Deterrence and Nuclear Integration

AMC/A3AA—Air Mobility Command/Airspace Management

AMC/A3V—Air Mobility Command/Aircrew Standardization and Evaluation Division

MAJCOM/A3—Major Command/Directorate of Operations

603 AOC/AMD—603rd Air Operations Center/Air Mobility Division

613 AOC/AMD—613th Air Operations Center/Air Mobility Division

618 AOC/MOD—618th Air Operations Center/Mobility Operations Directorate

618 AOC/MODM—618th Air Operations Center/Flight Management Division

Terms

Aeromedical Evacuation (AE)—Movement of patients under medical supervision between medical treatment facilities (MTFs) by air transportation.

Air Operations Center (AOC)—The Air Operations Center provides operational-level C2 of air, space, and cyberspace operations. It is the focal point for planning, directing, and executing air, space, and cyberspace operations to meet operational objectives and guidance.

Air Refueling Control Point (ARCP)—The planned geographic point over which the receiver(s) arrive in the observation/pre-contact position with respect to the assigned tanker.

Air Refueling Control Time (ARCT)—For a point parallel rendezvous, the planned time the receiver and tanker will arrive over the ARCP. For an enroute rendezvous, the planned time receiver and tanker will arrive over the ARIP.

Air Refueling Exit Point (AR EXIT PT)—The designated geographic point at which the refueling track terminates. In a refueling anchor it is a designated point where tanker and receiver may depart the anchor area after refueling is complete.

Air Refueling Initial Point (ARIP)—A planned geographic point prior to the ARCP to which tankers and receivers time independently to affect an arrival at the ARIP (enroute rendezvous) or ARCP (point parallel rendezvous) at the ARCT.

Aircraft Commander (AC)—A qualified pilot graduate of an aircraft commander upgrade course or aircraft commander initial qualification training, certified by the squadron commander to act as pilot in command of an aircraft. Capable of holding the A-code.

Airfield Suitability and Restrictions Report (ASRR)—a quarterly publication, electronically available to aircrews on GDSS, in ePubs on the aircrew Electronic Flight Bag (EFB), or via the Aero App on the EFB. The ASRR establishes airfield suitability and restrictions for AMC and AMC-gained C-32, C-5, C-130, C-17, KC-10, KC-135, KC-46, C-40, C-37 and C-21 aircraft operations. GDSS provides the most up to date information available. Others use as information only, or as directed by the assigned MAJCOM.

Airlift—Aircraft is 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 618 AOC (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 Division (AMD)—One of five divisions of the AOC, responsible for integrating and supporting air mobility missions. Coordinates with JFC, theater AMOCC (if established) and 618 AOC (TACC) in planning, tasking, and executing theater air mobility missions.

Air Traffic Control (ATC)—A service provided by an appropriate authority to promote the safe, orderly, and expeditious use of the air transportation system and to maximize airspace utility.

Altitude Reservation (ALTRV)—An area of airspace reserved with the appropriate ATC authority. There are two types of ALTRVs: moving and static. A moving ALTRV encompasses enroute activities and advances coincident with mission progress. A static ALTRV consists of a defined geographic area, specific altitude(s), and time period(s).

Bird Aircraft Strike Hazard (BASH)—An Air Force program designed to reduce the risk of bird strikes. BASH information can include Bird Watch Condition levels that define the bird types and density concentrations. The levels are Low, Moderate and Severe.

Bird Watch Condition Low—Normal bird activity. As a guide, fewer than 5 large birds (waterfowl, raptors, gulls, etc.) or fewer than 15 small birds (terns, swallows, etc.) on and above the airfield with a low probability of hazard. Keep in mind a single bird in a critical location may elevate the Bird Watch Condition (BWC) to moderate or severe.

Bird Watch Condition Moderate—Increased bird population (approximately 5 to 15 large birds or 15 to 30 small birds) in locations that represent an increased potential for strike. Keep in mind a single bird in a critical location may elevate the BWC to moderate or severe.

Bird Watch Condition Severe—High bird population (as a guide, more than 15 large birds or 30 small birds) in locations that represent an increased potential for strike. Keep in mind a single bird in a critical location may cause a severe BWC.

Channel—Missions operating over established routes to provide scheduled service between specified locations. Channels can serve intertheater or intratheater needs. Most airlifted sustainment moves on channel missions.

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. Command and control 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 (C2) Centers—Each C2 Center provides supervision, guidance, and control within its assigned area of responsibility. For this AFMAN, C2 Centers include operations centers, command posts, air mobility elements, contingency response groups (CRG), air mobility control centers, and tanker task forces.

Contingency Response Groups (CRG)—Teams 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.

CORONET missions—Movement of air assets, usually fighter aircraft, in support of contingencies, rotations, and exercises. The tanker aircraft on a CORONET mission provides fuel to avoid intermediate stops and provides weather avoidance, oceanic navigation, communication, and command and control of the mission.

Critical Phase of Flight—Terminal Area operations (including taxi, takeoff, approach and landing), Low-level flight, Air Refueling, tactical/air combat and formation operations (other than cruise) and all portions of any test or functional check flight, or aerial demonstration.

Decompression (Depressurization) Fuel—The additional fuel required to protect the aircraft and occupants in the event of a cabin depressurization followed by an extended diversion to an alternate airport at low altitude where fuel consumption is increased.

Degrade Percentage (DGDP)—Percentage of fuel to be added or subtracted to enroute calculations.

Deviation—A deviation occurs when takeoff time is not within -20/+14 minutes of scheduled takeoff time. Scheduled takeoff time may be adjusted to make good an ARCT. Notify controlling agency prior to takeoff to adjust the scheduled takeoff time.

Equal Time Point (ETP)—A point on the route of flight where the flight time, considering wind, to each of two selected airports is equal.

Estimated Time In Commission—Estimated time required to complete required maintenance.

ETOPS Adequate Airport—An airfield used for ETOPS planning that is listed in the AMC ASRR for the MDS worked with suitable runway, taxiway and ramp length, width, weight bearing capacity; maximum on ground (MOG) of at least one; lighting for night operations, weather at or above instrument approach ceiling and visibility minimums, and winds within limits. Airfield is open from earliest to latest planned divert arrival time; not on the SPIC list or Certification Airfield

list; has appropriate fuel available; and not be disqualified due to diplomatic/political considerations.

ETOPS Alternate Airport—An airfield used in ETOPS planning that meets Adequate Airport criteria and weather minimums in AFMAN 11-2KC-46 Volume 3; has a suitable instrument procedure available for the planned approach from earliest to latest planned divert arrival time (+/- one hour); meets landing performance criteria and RCR corrected wind limitations; and has a minimum Aircraft Rescue and Fire Fighting (ARFF) Category 4 (Category 7 if maximum diversion time is greater than 180 minutes).

ETOPS Area of Operation (EAO)—For twin engine airplanes an area beyond 60 minutes from an adequate airport and within the authorized ETOPS maximum diversion time approved for the operation being conducted. An EAO is calculated at an approved one-engine inoperative cruise speed under standard conditions in still air.

ETOPS Entry Point—For two engine aircraft, the point on the route of an ETOPS flight, determined using a one-engine inoperative cruise speed under standard conditions in still air, that is more than 60 minutes from an adequate airport. This is the point where the aircraft enters the ETOPS Area of Operation.

ETOPS Exit Point—The point on the route of an ETOPS flight where an aircraft with two engines is within 60 minutes flying time (calculated using OEI cruise speed under standard conditions in still air) from an adequate airport. This is the point where the aircraft exits the ETOPS Area of Operations.

ETOPS Critical Fuel Point—The point along the intended route of flight while in the ETOPS Area of Operation at which the ETOPS diversion fuel requirement to an ETOPS Alternate Airport is greatest.

ETOPS Maximum Diversion Time—The maximum time that a route can be planned from an ETOPS Alternate Airport, using the approved one-engine inoperative cruise speed under standard atmospheric conditions in still air (no wind). MDT is MDS specific and listed in AFMAN 11-2MDS Volume 3. MDT may be reduced based on aircraft maintenance status or increased to meet mission requirements (requires waiver and concurrence of pilot in command).

ETOPS One Engine Inoperative (OEI) Cruise Speed—The designated airspeed that is planned for use during an OEI diversion. OEI Cruise Speed is MDS specific and listed in AFMAN 11-2MDS Volume 3. This speed is used to determine whether an ETOPS alternate is within the maximum diversion time authorized for an ETOPS flight.

ETOPS Threshold Time—The maximum time that a route can be planned from an Adequate Airport, using the approved one-engine inoperative cruise speed under standard atmospheric conditions in still air, without entering the ETOPS Area of Operation. Threshold Time is MDS specific and listed in AFMAN 11-2MDS Volume 3.

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

Flight Managers—Federal Aviation Administration and USAF-trained and certified aircraft dispatchers who perform many sortie-related tasks traditionally accomplished by aircrews serving as the primary point of contact for real-time support to Mobility Air Forces aircrews. FMs

collaborate with aircraft commanders for the safety and operational control of sorties in collaboration with air traffic service agencies.

Force Protection—Actions taken to prevent or mitigate hostile actions against DoD personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporate the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force Protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. For FMs, Force Protection includes relaying information between C2 and aircrews.

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

Global Decision Support System (GDSS)—AMC's primary execution command and control system. GDSS is used to manage the execution of AMC airlift and tanker missions.

Ground Time—Interval between engine shut down (or arrival in the blocks if engine shutdown is not scheduled) and next takeoff time.

Hazardous Cargo or Materials (HAZMAT)—Articles or substances that are capable of posing significant risk to health, safety, or property when transported by air and 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 (e.g., 1.1, 2.3, 6.1, etc.).

Integrated Flight Management—Set of integrated C2 processes and supporting technologies for the planning and execution of air mobility sorties.

International Civil Aviation Organization (ICAO)—A specialized agency of the United Nations that coordinates the principles and techniques of international air navigation and fosters the planning and development of international air transport to ensure safe and orderly growth.

Maintenance Status—See Below

A-1—No maintenance required.

A-2 (Plus Noun)—Minor maintenance required, but not serious enough to cause delay. Add nouns that identify the affected units or systems (e.g., hydraulic, ultrahigh frequency (UHF) radio, radar, engine, fuel control, generator, boom, or drogue, etc.). Attempt to describe the nature of the system malfunction to the extent that appropriate maintenance personnel will be available to meet the aircraft. When possible, identify system as mission essential (ME) or mission contributing (MC).

A-3 (Plus Noun)—Major maintenance. Delay is anticipated. Affected units or systems are to be identified as in A-2 status above.

A-4—Aircraft or system has suspected or known biological, chemical, or radiological contamination.

Maximum Diversion Time—Is the longest diversion time authorized for a flight under the operator's ETOPS authority (for example 120 minutes, 180 minutes, 240 minutes). It is calculated under standard conditions in still air (no wind) at a one-engine inoperative cruise speed.

Mission—Movement of aircraft from a designated point of origin to a designated destination as defined by assigned mission identifier, mission nickname, or both in the schedule, mission directive, operation order (OPORD), operations plan (OPLAN), or fragmentation order (FRAG).

Mission Contributing—Any discrepancies that are not currently designated Mission Essential (ME).

Mission Essential—An item, system, or subsystem component essential for safe aircraft operation or mission completion.

Mobility Air Force—Forces assigned to mobility aircraft or MAJCOMs with operational or tactical control of mobility aircraft.

Mobility Air Forces Automated Flight Planning Service (MAFPS)—An Air Force-level system used for flight planning MAF aircraft. MAFPS generates optimized, fuel-efficient flight plans for airland, air refueling and extended operations (ETOPS) sorties.

One-Engine Inoperative Cruise Speed—The speed used to determine whether an ETOPS alternate is within the maximum diversion time authorized for an ETOPS flight.

Operational Missions—Missions executed at or above 618 AOC (TACC) level. Operational missions termed "CLOSE WATCH" include CORONET missions and AFI 11-221, *Air Refueling Management (KC-10, KC-46, and KC-135)*, priority 1, 2, and 3 missions tasked by the 618 AOC (TACC). Other operational missions such as deployment, re-deployment, reconnaissance operations, operational readiness inspections (ORI), AMC channel or Special Assignment Airlift Mission (SAAM), and Joint Airborne/Air Transportability Training (JA/ATT) missions may be designated "CLOSE WATCH" as necessary.

Operational Risk Management (ORM)—A logic based, common sense approach to making calculated decisions on human, materiel, and environmental factors before, during, and after Air Force operations. It enables commanders, functional managers, and supervisors to maximize operational capabilities while minimizing risks by applying a simple, systematic process appropriate for all personnel and Air Force functions.

Patient Movement Categories—See Below

Urgent—Patients who will be moved immediately to save life, limb, or eyesight, or to prevent complication of a serious illness.

Priority—Patients requiring prompt medical care that will be moved within 24 hours.

Routine—Patients who should be picked up within 72 hours and moved on routine/scheduled flights.

Pilot In Command (PIC)—The PIC is the aircrew member designated by competent authority, regardless of rank, as being in command of an aircraft and responsible for its safe operation and accomplishment of the assigned mission. The term PIC is used interchangeably with the term Aircraft Commander (AC).

Quick Reaction Checklist (QRC)—QRCs are documents that rapidly disseminate time sensitive information, provide notifications, and track steps taken. QRCs are brief and concise; they lead the individual running the QRC through an orderly and prioritized sequence of actions.

Required Ramp Fuel Load (RRFL)—Minimum fuel required at engine start to complete tasked mission. It is the sum total of all fuel required to complete a flight to a final landing, either at the destination or alternate if required, plus fuel reserves and usable fuel value; or, between Air Refueling Control Points (ARCPs) and then to land at the destination (or a recovery base, if refueling is not successful), plus the fuel reserve and usable fuel value.

Scheduled Takeoff Time—Takeoff time is established in the schedule or OPORD. For air aborts and diversions, this will be engine shut down time (or arrival in the blocks if engine shutdown is not scheduled) plus authorized ground time. Early deviation does not apply to aborts or diversions unless the mission is formally rescheduled by current operations.

Significant Meteorological Information (SIGMET)—Area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, severe and extreme turbulence, severe icing, and widespread dust or sandstorms. A SIGMET frequently covers a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

Special Assignment Airlift Mission (SAAM)—Funded airlift that cannot be supported by channel missions because of the unusual nature, sensitivity, or urgency of the cargo or that requires operations to points other than the established channel structure.

Tanker Airlift Control Center (618 AOC/TACC)—Responsible for tasking and controlling operational missions for all activities involving forces supporting USTRANSCOM's rapid global air mobility mission. The TACC is comprised of the following directorates: AAD (Airlift Allocation), ALD (Airlift), ARD (Air Refueling), GAD (Mission Support, includes aeromedical evacuation, logistics, aerial port, and maintenance), WXD (Weather), mobility support, IRD (Intelligence, Surveillance, and Reconnaissance), SRD (Strategy), and MOD (Mobility Operations). MOD manages and flight follows each mission. Within MOD are MODZF (Flight Plans), MODZD (International Clearances) branches and MODM (Flight Management Division).

Tanker Task Force (TTF)—Force of tanker aircraft assembled and tasked to perform a specific function.

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