(ACC) This document has been revised to insert parentheses within the original document. These parenthetic statements specifies guidance applicability (i.e. '(AFRC only)' or '(N/A ANG)'). This revision inserts statements appropriately designating guidance applicability."

2.5. Flight Logs. When required by the MAJCOM, PIC's will ensure the flight log documents appropriate air navigation, oceanic crossing, and fuel planning information. The lead command will approve flight-planning software to meet MDS training and operational requirements. Approved flight logs include: AF Form 70, *Pilot's Flight Plan and Flight Log*, Navigator's flight log, a MAJCOM-approved computer-generated flight log or form, or flight planning computations annotated on a navigation chart.

2.5. (ACC)Flight Logs. All flights require flight logs except for active air defense scrambles, operational search and rescue missions, and AT-38/QF-X aircraft.

2.5.1. **(Added-ACC)** The following flight logs are authorized:

2.5.1.1. **(Added-ACC)** Navigation chart and/or mission flight plan identifying the route of flight from takeoff to landing and containing all the information that would normally be on the AF IMT 70.

2.5.1.2. **(Added-ACC)** C/EC/HC-130 crews may continue to use AMC or unit navigator forms with HQ ACC/A3T approval.

2.5.1.3. **(Added-ACC)** RQ-4 pilots may use the Air Force Mission Support System (AFMSS) computer-generated mission flight plan log.

2.6. Weather. For authorized weather sources, refer to AFH 11-203V2, *Weather for Aircrews*, the Flight Information Handbook (FIH) or use a published MAJCOM-approved source. If unable to obtain weather information, pilots may fly in VMC to a point where contact may be established with an authorized weather source.

2.6.1. **(Added-ACC)** When requesting a written weather briefing use DD Form 175-1, *Flight Weather Briefing*; or any locally-approved mission execution forecast briefing form.

2.6.2. **(Added-ACC)** When military weather services are unavailable, pilots may call the applicable Operational Weather Squadron (OWS) (see Flight Information Handbook for contact number), their home station or use any FAA approved weather system or service, (e.g., DUATS or the NOAA Aviation Weather site).

2.6.3. **(Added-ACC)** N/A AFRC/ANG. The PIC will document the source of the weather information and the time of receipt in either the weather block of the DD Form 175, Military Flight Plan, or in the remarks section of the flight plan filed.

2.6.4. **(Added-ACC)** When requested, aircrews will provide weather units with a post-mission debrief describing weather conditions encountered, accuracy of forecasts and impact of the weather and weather forecasts on mission effectiveness. Mission debriefs may be conducted in person, telephonically, electronically or in writing as defined in local operating instructions. Direct weather debriefs towards the weather unit that provided the initial weather briefing.

2.7. Prior to flight, the PIC must ensure each crewmember and passenger is briefed on items affecting safety or mission completion. At a minimum, briefings will include:

2.7.1. Emergency procedures.

2.7.2. Aircrew and Passenger flight equipment/systems usage information (see para. 6.2.).

2.7.3. Safety precautions and restrictions (including electronic device prohibitions).

2.7.3.1. **(Added-ACC)** In order to increase awareness on potential conflicts with other aircraft, aircrews will brief the following special subject on every sortie: Radar/visual search responsibilities for departure, en route, recovery and high density traffic areas; and mid-air collision avoidance (from other military aircraft and/or civilian aircraft).

2.7.4. Special procedures and instructions for use during training, formation, or operational missions.

2.8. Printed Information Guides. Lead commands will supplement verbal briefings with printed information guides for passenger use according to DoD 4515.13-R on all aircraft designated as passenger-carrying. Printed guides do not substitute for verbal briefings. MAJCOMs may exempt aircraft from this requirement if the printed guides create a safety hazard.

2.9. Electronic Devices. The PIC will prohibit the use of any device suspected of creating interference with any system on the aircraft. Devices that transmit through an antenna are prohibited from use during all phases of flight except as noted below. For the purposes of this AFI, characteristics of "portable" devices include items that: cannot be installed as standard equipment, are carried/loaded onto the aircraft prior to flight, are removed after the flight is completed, and the extent of the electrical interface with the aircraft is at most electrical power and a data interface port (such as RJ-45). Lead or user MAJCOMs shall ensure that required testing is conducted IAW MIL-STD 464 and MIL HANDBOOK 516. The following prohibitions apply to each passenger and crewmember aboard a USAF aircraft or UAS control station:

2.9. (ACC)Electronic Devices. Use of Portable GPS units (PGUs) and/or laptop computers will be IAW AFI 11-202V3, this supplement, and ASC/ENAE PGU and laptop computer certification memorandums. Only the PGUs and laptop computers listed on the ASC/ENAE certification memorandum are authorized for use. The ASC/ENAE testing and certification letters are available to view on the HQ ACC/A3TV website. **NOTE:** PGUs, laptop computers or any combination thereof, that require aircraft power and/or an aircraft data source to operate are prohibited unless approved IAW the aircraft modification (AF Form 1067, *Modification Proposal*) process.

2.9.1. **Cellular Phones.** The PIC will ensure that cellular phones, pagers, wireless internet capable devices and similar cell phone technology devices are turned off and stowed from the time the aircraft leaves its parking spot for departure until clear of the runway after landing.

2.9.2. **Medical Equipment**. Normally, only medical equipment referenced in the aircraft flight manual or AFI 11-2MDS series is permitted. The 77 AESG/TFL Aeromedical Test Branch is responsible for certifying medical equipment for flight from both aircraft and patient safety standpoints. Their contact information is as follows: 77 AESG/TFL, 7980 Lindberg Landing, Brooks-City Base TX 78235-5104, DSN 240-1187.

2.9.3. **Portable Non-transmitting Devices Authorized Anytime.** The following devices that do not transmit a signal through an antenna may be used at any time: hearing aids, heart pacemakers, watches, hand-held calculators, electric shavers, and equipment certified IAW paragraph 2.9.6. Personal camera use is prohibited during solo flight.

2.9.4. **Instrument Meteorological Conditions (IMC).** The following conditions apply to the use of electronic devices other than cellular phones during flight in IMC:

be on flight orders and accorded additional crewmember status as authorized by AFI 11-401, paragraph 1.10.1.3. See AFI 11-301V1, *Aircrew Flight Equipment (AFE) Program*, and the corresponding ACC Supplement, for aircrew flight equipment continuation training requirements.

5.3.2.4. **(Added-ACC)** Aircrews, passengers and orientation riders will not use personal cameras while classified documents are open or classified information is visible on cockpit or mission crew displays. Any question concerning in-flight photography should be addressed to the aircraft commander or Mission Crew Commander.

5.3.2.5. **(Added-ACC)** AFRC only. AFRC fighter/attack aircraft require specific approval by the HQ 10 AF/A3 to use a camera during flight. This includes either the front or back seat if appropriate. This approval is not required for the exception noted in paragraph 5.3.2. (Added).

5.3.3. **(Added-ACC) Lipstick Cameras.** Use of lipstick cameras certified IAW paragraph **2.9.6** of the basic instruction is authorized anytime provided they are mounted to the aircraft in a manner that does not interfere with ejection/egress. Since helmet-mounted lipstick cameras may interfere with ejection/egress, their use requires coordination with HQ ACC/A3TV and MAJCOM/A3 approval. ANG units will coordinate with NGB/A3T for NGB/A3 approval. AFRC units will coordinate with HQ AFRC/A3V for HQ AFRC/A3 approval.

5.3.4. **(Added-ACC) Binocular Use.** Use of binoculars in single seat ACC fighter/attack aircraft will be restricted to aircraft engaged in Forward Air Control (Airborne) (FAC (A)), Killer Scout, Visual Reconnaissance, DCA/Air Defense, Close Air Support (CAS) or Combat Search and Rescue (CSAR) missions. The use of binoculars is limited to target identification and threat acquisition functions. Securely stow binoculars until required for use. Use of binoculars must be pre-briefed within a flight to insure flight path deconfliction, altitude awareness and visual lookout responsibilities.

5.4. See and Avoid. Pilots operating in VMC, under IFR or VFR, whether or not under radar control, are always responsible to see and avoid other traffic, terrain, and obstacles.

5.4.1. Standard IFR separation is provided between aircraft operating under IFR in controlled airspace. Within the NAS, ATC provides traffic advisories on VFR aircraft on a time-permitting basis. Outside the NAS, the crew should consult ICAO and country specific guidance outlined in the FCG and FLIP.

5.4.2. For UAS operations to comply with see and avoid requirements, the RPA must have the capability to detect/sense other traffic in sufficient time to perform an avoidance maneuver.

5.4.2.1. UAS operations that do not comply with paragraph 5.4. will be conducted under specific arrangements with appropriate aviation authorities (FAA, host nation, or military control). FAA COAs issued IAW JO 7610.4 (Chapter 12, Section 9) or arrangements with host-nation aviation authorities do not always waive the CFRs nor provide relief from ICAO Rules of the Air. JO 7610.4 outlines an equivalent level of safety comparable to see and avoid requirements for manned aircraft. UAS operations in compliance with an FAA COA, host-nation aviation authorization or in special use

airspace are acceptable provided the appropriate equivalent level of safety measures are in place with controlling agencies and other airspace users.

5.4.3. **(Added-ACC) Military Authority Assumes Responsibility for Separation of Aircraft (MARSA).** FAA JO 7610.4N defines MARSA as "a condition whereby the military services involved assume responsibility for separation between participating military aircraft in the ATC system. It is used only for IFR operations that are specified in Letters of Agreement or other appropriate FAA or military documents." Flying units must ensure pilots are aware of MARSA agreements contained in Letters of Agreement with Air Traffic Control agencies. Pilots cannot arbitrarily declare MARSA. See AFI 13-201 for additional procedures.

5.5. Proximity of Aircraft. The PIC must not allow the aircraft to be flown so close to another that it creates a collision hazard. Use 500 ft. of separation (well clear) as an approximate guide except for:

5.5.1. Authorized formation flights.

5.5.2. Emergency situations requiring assistance from another aircraft. If an emergency requires visual checks of an aircraft in distress, the PIC must exercise extreme care to ensure this action does not increase the overall hazard. The capabilities of the distressed aircraft and the intentions of the crews involved must be considered before operating near another aircraft in flight.

5.5.3. MAJCOM-approved maneuvers in which participants are aware of the nature of the maneuver and qualified to conduct it safely (i.e., interceptor attack training).

5.6. Formation Flight.

5.6.1. **Transponder Operations During Air Refueling or Formation Flight**. Unless otherwise specified in Allied Communications Publication 160, US Supplement 1:

5.6.1. **(ACC)** of the basic instruction, nonstandard formation flight may not be possible with inoperative IFFs.

5.6.1.1. Only one aircraft (normally the lead) of a standard formation will squawk the assigned code.

5.6.1.2. Unless otherwise directed by ATC, all aircraft within a non-standard formation flight will squawk the ATC-assigned Mode 3A/C beacon code until established within the assigned altitude block and closed to the proper en route interval. When aircraft interval exceeds 3 NMs, both the formation leader and the last aircraft will squawk the assigned Mode 3A/C beacon code.

5.6.1.3. Unless otherwise directed, receivers squawk standby when <3NMs from the tanker.

5.6.2. **Non-standard Formation Flight**. Non-standard formation flights may be conducted:

5.6.2.1. When approved by ATC, or

5.6.2.2. Operating under VFR in VMC, or

5.6.2.3. Operating within an authorized Altitude Reservation (ALTRV), or

5.6.2.4. Operating under the provisions of a Letter of Agreement (LOA), or

5.6.2.5. Operating in airspace specifically designed for a special activity.

5.6.2.6. **(Added-ACC)** Issuance of an ATC clearance for a nonstandard formation constitutes approval by ATC for operations in a nonstandard formation. The formation leader shall notify ATC upon initial contact and entering each new sector that flight operations are being conducted in a nonstandard formation. Advise ATC of the separation and spacing being employed.

5.7. Right-of-Way. Each pilot must take whatever action is necessary to avoid collision, regardless of who has the right-of-way. The yielding aircraft must not pass over, under, abeam, or ahead of the other aircraft until well clear.

5.7.1. **Distress.** Aircraft in distress have the right-of-way over all other air traffic.

5.7.2. **Converging.** When converging at approximately the same altitude (except head-on or approximately so), the aircraft to the other's right has the right-of-way. Aircraft of different categories have the right-of-way in the following order of priority: balloons, gliders, aircraft towing or refueling other aircraft, airships, rotary- or fixed-wing aircraft.

5.7.3. **Approaching Head-On**. If aircraft are approaching each other head-on or approximately so, each shall alter course to the right.

5.7.4. **Overtaking Aircraft**. An overtaken aircraft has the right-of-way. The overtaking aircraft must alter course to the right.

5.7.5. **Landing**. An aircraft established on final approach has the right-of-way over other aircraft on the ground or in the air, except when two or more aircraft are approaching to land. In this case, the aircraft at the lower altitude has the right-of-way but it shall not use this advantage to cut in front of or overtake the other.

5.8. Communication in Flight.

5.8.1. **Air Traffic Control Clearances.** The PIC will comply with ATC clearances and instructions unless a deviation is necessary due to an in-flight emergency, to ensure safety of flight or to comply with a Traffic Alert and Collision Avoidance System (TCAS) resolution advisory (RA). Pilots will use standard aviation terminology, in English, from the Pilot-Controller glossary, MAJCOM guidance and FLIP when communicating with ATC.

5.8.1.1. Maintain two-way radio communications with the proper ATC facility or FSS IAW the procedures appropriate for the class of airspace as outlined in FLIP.

5.8.1.2. If the pilot is unsure of any clearance, immediately obtain ATC clarification.

5.8.2. **Transponder Operations.** The PIC will ensure an operable transponder is used IAW ATC instructions or host nation or MAJCOM directives, SPINS, or for any flight in controlled airspace (including MODE 4 when directed). In the NAS, transponders should be operated any time the aircraft is moving. For aircraft that are equipped with Mode S, the PIC must follow proper usage guidelines as outlined in GP. MAJCOMs will manage assigned codes to ensure no two aircraft are airborne with the same Mode-S address/code. Mode 4 operations are restricted to those necessary, and as outlined in the Flight Information Handbook (See MODE 4 in glossary).

5.16.1.2. **(ACC)** For Companion Trainer Program aircraft, the safety observer must be a pilot qualified in that particular aircraft.

5.16.1.3. MAJCOMs may authorize UAS to conduct simulated instrument flight provided the aircraft has sense and avoid capabilities as outlined in paragraph 5.4.2.

5.16.2. **Practice Instrument Approaches.** Approaches conducted in other than actual IMC. The pilot must still be able to see the ground, surrounding terrain, and when established on the final segment of the approach, the airport environment. Practice instrument approaches, including approaches flown under VFR will be conducted IAW Chapter 8 of this instruction. Practice approaches may be conducted without a safety observer (as defined in paragraph 5.16.1.2) if the pilot is instrument qualified and current in the type of approach flown. When flying a practice approach without a safety observer, the pilot must maintain a composite crosscheck that maintains situational awareness with terrain and other traffic. The pilot is not relieved of the responsibility to see and avoid other traffic, terrain and obstacles.

5.16.3. **Vision Restricting Devices.** MAJCOMs must approve the use of vision restricting devices (e.g., hoods, Foggles, etc) and provide specific approval for their use during takeoffs and landings. Vision restricting devices will not be used without a safety observer.

5.16.3. **(ACC) Vision Restricting Devices.** Hooded simulated instrument flight is permitted when the pilot performing simulated instrument flight is occupying the rear seat in aircraft with tandem cockpits. When pilots use a vision-restricting device, the safety observer must be an instrument qualified pilot, landing current in the aircraft and must have full view of the flight instruments and access to the flight controls. HH-60 aircrew will not use a hood or other artificial vision-restricting device for any phase of flight.

5.16.3.1. Maintain at least 2,000 ft of obstruction clearance when using vision restricting devices if the safety observer is in a chase aircraft, is not qualified as a pilot, or does not have full view of the flight instruments and access to the flight controls.

5.17. Simulated Emergency Flight Procedures:

5.17.1. **Restrictions.** The following restrictions apply to simulated emergencies:

5.17.1.1. Do not practice emergency procedures with passengers on board. Non-flight deck crewmembers may accomplish emergency procedures or medical emergency training with passengers on board provided there is no interference with the cockpit crew and mission requirements.

5.17.1.2. Single pilot aircraft require day (including civil twilight), VMC.

5.17.1.3. Multi-pilot aircraft in day IMC require weather conditions at or above published circling minimums for the approach to be flown.

5.17.1.4. Multi-pilot aircraft at night require weather conditions at or above 1,000 ft. ceiling and 2 SMs visibility or circling minimums, whichever is higher.

5.17.1.5. **(Added-ACC)** Simulated compound emergency procedures are prohibited in Companion Trainer Program aircraft.

5.17.1.6. **(Added-ACC)** Excluding Functional Check Flights (FCFs), do not use the landing gear and flap emergency systems to simulate hydraulic or electrical emergencies

5.18.2. Touch-and-go landings are authorized if required by courses listed in the Air Force Education Training Course Announcement (ETCA) database (**https://etca.randolph.af.mil**/).

5.19. Dropping Parachutists or Objects or Fuel Jettison. The PIC will not allow the dropping of parachutists or objects, or jettison of fuel from the aircraft except in an emergency or when required for mission accomplishment.

5.19.1. **MAJCOM Responsibilities.** MAJCOMs will ensure airdrops comply with applicable directives.

5.19.2. **PIC Responsibilities.** The PIC will:

5.19.2.1. When jettisoning fuel and circumstances permit, notify the appropriate ATC or flight service facility of intentions, altitude, location, and when the operation is complete.

5.19.2.2. Drop chaff containing rope elements IAW AFI 13-201 and JO 7610.4.

5.19.2.3. Report any accidental loss of equipment or aircraft parts or jettisoning of fuel or cargo IAW AFMAN 10-206, *Operational Reporting*, and AFMAN 91-223, *Aviation Safety Investigations and Reports*.

5.20. Aircraft Lighting.

5.20.1. **Reduced Lighting.** MAJCOMs may authorize reduced or light-out operations in restricted areas, warning areas or host nation approved areas. Host nation approved areas may be documented in a LOA or host nation regulatory documentation.

5.20.2. **Aircraft Lighting During Formation Operations.** MAJCOMs may authorize formation flights to vary their lighting configuration according to the aircraft type and mission requirement. The MAJCOM must provide guidance on this type of operation and ensure the guidance provides an equivalent level of visual identification as a single aircraft.

5.20.2. **(ACC) Aircraft Lighting During Formation Operations.** All aircraft flying in **non-standard** formation not operating IAW paragraph **5.20.1** must have, as a minimum, visible external lighting operating IAW paragraphs **5.20.2** and **5.20.3** of the basic AFI. **Standard** formation flights not operating IAW paragraph **5.20.1** will comply with AFI 11-2 MDS-Specific, Volume 3 guidance and, as a minimum, the last aircraft in the formation must have visible external lighting operating IAW paragraphs **5.20.2** and **5.20.3** of the basic AFI.

5.20.3. **Position Lights**. Illuminate all position lights between official sunset and sunrise:

5.20.3.1. Immediately before engine start and when an engine is running. Aircraft that do not have power available before start shall turn them on as soon as power is available.

5.20.3.2. When parked in an area likely to create a hazard or while being towed, unless clearly illuminated by an outside source.

5.20.4. **Anticollision and Strobe Lights.** Anticollision lights and strobe lights are not the same. For the purposes of this section, anti-collision lights are the primary flashing light system on the aircraft intended to attract the attention of others to enhance see and avoid operations, while strobe lights are systems such as wingtip strobes or other similar strobe light installations.