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SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-2AP
VOLUME 3**



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Flying Operations

**COMBAT CAMERA OPERATIONAL
PROCEDURES**

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This manual implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*. This volume establishes policy for Combat Camera Aerial Photographers to safely and successfully accomplish their worldwide missions. This AFI applies to all personnel involved with employing Combat Camera aerial photographers, and support personnel involved with Combat Camera aerial operations. This manual is not applicable to the Air National Guard. Refer recommended changes and questions about this publication to the OPR listed above using the AF Form 847, Recommendation for Change of Publication; route AF Forms 847 from the field through the appropriate chain of command. 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 Air Force Instruction (AFI) 33-360, Publications and Forms Management, Table 1.1, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW the Air Force Records Information Management System.

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Federal Accounts Relating to Individual Persons, as amended by Executive Order 13478, Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers, November 18, 2008. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule. The Paperwork Reduction Act of 1995 as amended in 1996 affects this instruction. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional chain of command.

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Chapter 1

GENERAL

1.1. Policy. This manual provides policy for Combat Camera (COMCAM) aerial photographer operations. When guidance in this manual conflicts with another basic/source document, that document takes precedence. Aerial photographers must be familiar with and comply with AFI 11-202, Volume 3, *General Flight Rules*, when it differs from this manual. In addition to the roles and responsibilities below, refer to appropriate mission design series Air Force (AF) instruction for additional responsibilities.

1.2. Description. The description, aerial photographer, is a generic term for Broadcast Journalists (3N0X2) and Photojournalists (3N0X5) from the public affairs career field tasked to acquire official imagery in support of Department of Defense (DoD) operations.

1.3. The COMCAM Squadron. The COMCAM Squadron provides the Office of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, the military departments, Joint Task Forces, and the Combatant Commanders with a directed imagery capability in support of operations and planning requirements during worldwide crises, contingencies, exercises and wartime operations.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Air Force Public Affairs Agency (AFPAA). Air Force Public Affairs Agency (AFPAA) is the lead command for worldwide AF COMCAM support and oversees Air Force COMCAM program management and combat readiness. AFPAA executes the COMCAM aerial photographer program management. When mobilized, the 4th Combat Camera Squadron falls under operational control of AFPAA.

2.2. Execution Authority. When tasked and deployed to an area of responsibility, the Combatant Commander serves as execution authority. When delegated operational control, commanders of air forces serve as execution authority for air missions and execute missions and taskings through a local command post or command and control element. Operations group commanders serve as execution authority for local training missions.

2.3. Responsibility and Authority. A pilot in command will be designated on the AF Form 4327a, *Crew Flight (FA) Authorization*. (T-1) It is the responsibility of COMCAM aerial photographers to coordinate flight and mission-related duties with the aircrew.

2.3.1. The pilot in command is the final mission authority with regard to COMCAM aerial photographers operating on the aircraft.

2.3.2. COMCAM aerial photographers should notify the pilot in command of issues that may affect the aerial photography mission. COMCAM aerial photographers may take safety precautions during the flight, and will notify the pilot in command of these actions.

2.4. COMCAM Command and Control.

2.4.1. When not deployed, Air Force COMCAM units are under the operational control of the AFPAA Commander. During normal operations, the 4th COMCAM Squadron is under operational control of the Air Force Reserve Command.

2.4.2. During joint missions, contingencies and operations, tasked and deployed COMCAM units are under the operational control of the Combatant Commander.

2.4.3. The Air Component Commander establishes operational requirements and exercises operational control for COMCAM in the area of responsibility. Requirements should consider aerial as well as ground capabilities and the full mission support functions of COMCAM.

Chapter 3

FLIGHT READINESS

3.1. Crew Rest. COMCAM aerial photographer's crew rest will not differ from those established in AFI 11-202, Volume 3 and is compulsory for COMCAM aerial photographers prior to performing any duties involving aircraft operations. COMCAM aerial photographers are individually responsible to ensure they obtain sufficient rest during a crew rest period. AFPAA shall establish procedures to place COMCAM aerial photographers in crew rest. **(T-2)**

3.2. Flight Duty Period. COMCAM aerial photographers will comply with AFI 11-202, Volume 3, Table 2.1 for the maximum flight duty period and waiver procedures.

3.2.1. Flight duty period may be waived by the AFPAA Commander when an operational risk management assessment determines that mission requirements justify the increased risk.

3.2.2. When authorized by the waiver authority, the pilot in command or CTCS commander may extend flight duty period a maximum of 2 hours to compensate for mission delays or post-mission duties.

3.3. Deadhead Time. Deadhead time is an official duty performed by a COMCAM aircrew member flying as a passenger (no flight-related duties performed) while on flight orders and may be flown without crew rest.

3.3.1. If flight-related duties are planned to be performed following deadheading, crew rest and flight duty period restrictions apply.

3.3.2. If in-flight or COMCAM aerial photographer crew-specialty related duties (e.g., capturing imagery in support of operations and planning requirements) are performed in conjunction with deadheading, crew rest and flight duty period restrictions apply.

3.3.3. Deadhead COMCAM aerial photographers will be annotated as Mission Essential Personnel on the AF Form 4327a in accordance with AFI 11-401, *Aviation Management*.

3.4. Maximum Flying Time. Maximum flying time is in accordance with AFI 11-202 Volume 3.

3.5. Flight Readiness Limitations. See also AFI 11-202, Volume 3, para 2.7.1.

3.5.1. **Medical.** COMCAM aerial photographers must maintain a medical clearance from the flight surgeon to perform in-flight duties. **(T-1)**.

3.5.1.1. Medical or dental treatment obtained from any source must be cleared by a flight surgeon prior to reporting for flight duty. **(T-1)**.

3.5.1.2. Use of any medication or dietary supplements is governed by AFI 48-123, *Medical Examinations and Standards*, and as approved by a flight surgeon. AFI 11-202, Volume 3, contains a partial list of medications that may be used without medical consultation. For over-the-counter not listing in AFI 202, Volume 3, consult the flight surgeon or other medical authority.

3.6. Aircrew Flight Equipment. COMCAM aerial photographers wear and use authorized clothing and equipment in accordance with AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*; AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*; AFI

11-202, Volume 3, *General Flight Rules*; AFPAA guidance; Special Instructions (SPINS); the aircraft technical order; and AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*. (T-1). COMCAM aerial photographers will comply with Major Command (MAJCOM) published laser eye protection guidance on training and use prior to in-flight use.

3.7. Aircrew Management.

3.7.1. Aircrew Complement. The CTCS commander or COMCAM team lead should form COMCAM aerial photographer teams based on fragmentation order/mission directive, crew duty time and flight duty period requirements, COMCAM aerial photographer qualifications, and other constraints to safely accomplish the mission tasking.

3.7.1.1. COMCAM Aerial Photographer Aircrew or Crew. The full complement of AF members required to complete an assigned mission. AFI 11-401 and this AFI validate COMCAM requirements for flight and define crew complement.

3.7.1.2. A basic COMCAM aerial photographer crew consists of two mission aerial photographers (one X3N0X2, Aerial Combat Broadcast Journalist, and one X3N0X5, Aerial Photojournalist). AFI 11-401 provides additional guidance.

3.8. Aircrew Member Qualification . A COMCAM aerial photographer will be qualified or in qualification training to perform duties as a nonrated aircrew member. COMCAM Aerial Photographer is an individual who meets all the following:

3.8.1. A nonrated aircrew as explained in AFPD 11-4, *Aviation Service*. Duties must be essential to performing aerial photography and operating associated equipment used for completing a mission. (T-2)

3.8.2. Is required for the mission as described in AFI 11-401.

3.8.3. Is designated on the flight authorization to fulfill specific COMCAM tasks.

Chapter 4

GENERAL FLIGHT RULES

4.1. Authorized Resources for Flight and Mission Related Duties. Conduct flight and mission-related duties with AFPAA/MAJCOM-approved devices and resources. MAJCOMs will establish policy on the use of personal, public, or non-DoD resources for flight and mission duties (e.g. personally-owned devices, non-DoD networks, commercial websites, etc.).

4.1.1. Flying unit commanders must ensure COMCAM nonrated personnel who perform in-flight duties receive an indoctrination course (hands-on orientation) on mission designed series-specific missions, egress, emergency procedures, and use of flight and emergency equipment. **(T-1)**. A preflight briefing does not qualify as an indoctrination course.

4.1.2. Crew at Stations. COMCAM aerial photographers must occupy their assigned duty stations from takeoff to landing unless absence is normal in the performance of crew duties. **(T-1)**.

4.1.3. All COMCAM aerial photographers must ensure that equipment brought to the aircraft from their unit is approved **(T-1)**. A list of equipment certified and approved for use aboard military aircraft is available from AFPAA. Equipment used onboard aircraft must continue to operate properly under flight conditions. It is essential COMCAM aerial photographers know the capability and performance limitations of each specific equipment item.

4.1.4. Resource Protection. COMCAM aerial photographers will perform a preflight functional check of their mission equipment, ensure it is protected from loss or damage, and carried in protective cases when not in use.

4.2. Portable Electronic Devices. The pilot in command will prohibit the use of any portable electronic devices suspected of creating interference with systems on the aircraft.

4.2.1. Do not connect unauthorized equipment (video equipment, food preparation equipment, radios/tape players, CD players, etc.) to the aircraft intercom, public address, radio systems, or electrical system.

4.2.2. COMCAM aerial photographers shall not use uncertified government furnished equipment or personal devices with RF transmit/receive capability on aircraft carrying hazard class 1 explosive cargo at any time. **(T-1)**. Prohibited devices include cellular phones, and laptop computers with wireless capability enabled (i.e. Bluetooth).

4.2.3. COMCAM aerial photographers are prohibited from using portable music listening devices (i.e. iPods, DVD players) while performing in-flight duties. These items may be utilized when in deadhead status or deposition/repositioning. Laptop computers may be used for official duties only.

4.3. Radio, Laser, and Other Electromagnetic Emitter Restrictions. COMCAM equipment which transmits radio, laser, or other energy will only be operated for the intended purpose and in the authorized manner to prevent unintentional interference, damage, or injury.

4.4. Communications Policy. COMCAM crew members are expected to maintain a high degree of cockpit professionalism at all times to include crew coordination, and interphone

(headset) communications inside the aircraft and should minimize non-essential cockpit conversations which could interfere with flight duties.

Chapter 5

PREFLIGHT

5.1. Flight Authorization. COMCAM flights in USAF aircraft will be authorized and documented in accordance with AFI 11-401 and MAJCOM guidance.

5.2. Mission Planning Requirements. Plan missions to the maximum extent possible. Obtain current and relevant information at all possible opportunities (see [attachment 2](#)). Effective mission planning is critical to COMCAM aerial missions. COMCAM aerial photographers will:

5.2.1. Understand mission requirements, what imagery is required, and purpose of the end product.

5.2.2. Schedule/coordinate flight with attached flying unit. Obtain pilot in command's name, mission number and type, show and brief time, reporting location, tail number and parking spot, alert, take-off and land times.

5.2.3. Schedule egress training 48 hours prior to flight, if applicable.

5.2.4. Inspect and perform an operations check on all audio-visual and aircrew equipment required prior to scheduled flight time.

5.3. COMCAM Aerial Photographers Preflight Duties. It is the COMCAM aerial photographer's responsibility to ensure all requirements are coordinated for proper mission documentation. COMCAM aerial photographers are responsible for properly securing audio-visual equipment, hand-carried baggage, and any other miscellaneous items in the aircraft cabin. Placement and security of items should be coordinated with the loadmaster/boom operator. Unsecured items are a hazard in the event of rapid decompression or aircraft emergency. The aerial photographer will brief the pilot in command in regard to the aerial COMCAM mission utilizing appropriate checklists.

5.4. Ground Safety. As prescribed by AFI 11-218, *Aircraft Operations and Movement on the Ground*, personnel in the immediate area of an operating aircraft will wear hearing protection. COMCAM aerial photographers must exercise extreme caution during all ground procedures.

5.4.1. A high accident potential exists due to noise level, vehicle activity around the aircraft, blackout/low-light conditions and inclement weather.

5.4.2. COMCAM aerial photographers should be familiar with the dangers associated with propellers, rotor blades/tail rotors, jet intake/exhaust, auxiliary power unit and aircraft ground equipment.

5.4.3. Smoking is not allowed within 50-feet of the aircraft.

5.5. COMCAM Aircrew Handbook. The COMCAM crew handbook, or an electronic version, will be carried on all operational and training aerial photographer missions. **(T-1)**. At a minimum, handbooks or electronic versions should include appropriate forms and references listed in [attachment 1](#).

5.6. Operational Risk Management . AFPAA will develop a local operational risk management program to include personal operational risk management assessment for all missions to be accomplished by COMCAM aerial photographers prior to each flight.

5.7. Aircrew Flight Equipment Requirements. The COMCAM team lead coordinates with the loadmaster/boom operator to determine that sufficient aircrew life sustaining equipment is onboard prior to departure. The COMCAM team lead should ensure all aircrew flight equipment is distributed and immediately available before mission departure. Aircrew flight equipment includes those systems, subsystems, emergency survival equipment, and techniques that will sustain life in-flight, afford varying degrees of protection and enhance survival potential during and after in-flight emergencies, crash landing, or ditching. Aircrew flight equipment requirements are in AFI 11-301, Volume 1. The loadmaster/boom operator identifies all aircrew flight equipment requirements for COMCAM and assigns the required equipment. COMCAM will coordinate with the loadmaster/boom operator to ensure they have the equipment and training required to complete their mission.

5.7.1. COMCAM aerial photographers will comply with the oxygen requirements in AFI 11-202, Volume 3.

5.7.2. Life preserver units or Personal Flotation Device. COMCAM crew member will ensure a life preserver unit is within easy prior to takeoff/landing on over water flights. COMCAM crew members will fit and adjust life preserver units for over water flights and will wear them on over water missions below 2000 feet, when required.

Chapter 6

ENROUTE

6.1. Safety Responsibilities and Precautions. All COMCAM aerial photographers are responsible for enforcing and observing safety measures while performing the aerial documentation missions.

6.1.1. Emergency procedures outlined in aircraft technical orders, required directives, and abbreviated checklists must be reviewed frequently to ensure fully coordinated action of all COMCAM aerial photographers.

6.1.2. COMCAM aerial photographers must remain alert for unusual occurrences and immediately report any safety hazard to the loadmaster/boom operator or pilot in command.

6.1.3. Adherence to crew resource management procedures/practices and constant situational awareness are keys to safe mission accomplishment.

6.2. Emergency Exits and Safety Aisles.

6.2.1. Do not secure aircraft or audio-visual equipment adjacent to an emergency exit in a manner that will prevent or impede egress.

6.2.2. During egress, ramps on all aircraft may be used if already deployed and unobstructed.

6.3. In-flight Duties.

6.3.1. Safety.

6.3.1.1. Stay clear of flight controls, yoke/stick, throttles, rudder pedals, ejection handles, etc. Coordinate prior to photographing crew members performing inflight duties. Cease movement around aircraft during emergency procedures. Coordinate with loadmaster, special mission aviator, or boom operator to determine acceptable area to sit/stand.

6.3.1.2. For open-door operations, ensure restraint harness and/or parachute is worn in accordance with mission designed series guidance and helmet/goggles are to be worn.

6.3.1.3. COMCAM aerial photographers will ensure all camera equipment is tethered to the individual and excess equipment secured during mission execution. (T-2).

6.3.1.4. Assist crew in identifying internal and external dangers to aircraft. Point out external hazards with clock/relative altitude position (ex. 12 o'clock high factor/no factor). COMCAM aerial photographers should coordinate with the crew to establish procedures prior to flight.

6.3.1.5. During an aircraft emergency, the COMCAM aerial photographer will follow the directions provided by aircrew.

6.3.2. Communication procedures. The CTCS commander will establish procedures for communication between the aerial photographers and other crew members.

6.4. Mission Documentation. COMCAM aerial photographers will not place themselves in a position to interfere with the visibility and/or duty performance of any aircrew member during operations.

6.4.1. Ensure audio is recorded for video products. Always alert crew when recording audio to ensure sensitive and/or classified is not discussed. If classified is recorded, handle the materials in accordance with AFI 35-109, *Visual Information*.

6.4.2. Get complete story using basic sequences, interviews, screen direction/transitions and close-ups.

6.4.3. Coordinate with respective crew member before blacking out or covering any portion of the aircraft if needed to eliminate sources of reflection.

6.4.4. Notify pilot when changing lenses, tapes, batteries, cards, etc. to ensure coordination of prior aircraft movement. **WARNING:** Notify pilot in command/loadmaster/boom operator, or special mission aviator immediately if any items are lost or misplaced during flight.

6.4.5. COMCAM aerial photographers document activities as required, to including classified missions. Just because an event is not releasable does not restrict aerial photographers from documenting a scene to fulfill the mission. Clearance and release procedures apply after, not during imagery acquisition.

6.4.5.1. Ensure imagery/recordings are coordinated with the aircrew with respect to classifications.

6.4.5.2. In the event that classified information must be destroyed, COMCAM aerial photographers will take appropriate measures to destroy media in accordance with DoD Manual 5200.01, Volume 3, *DoD Information Security Program: Protection of Classified Information*.

Chapter 7

ARRIVAL/MISSION TERMINATION

7.1. Mission Termination. The following tasks must be completed by COMCAM aerial photographers before a mission may be terminated:

- 7.1.1. Disconnect all equipment and personal flying gear.
- 7.1.2. Accomplish inventory of all equipment.
- 7.1.3. Ensure aircraft interior cleaning tasks are completed.
- 7.1.4. All aircraft systems discrepancies/malfunctions have been reported to the loadmaster/boom operator or special mission aviator for repair by maintenance personnel.
- 7.1.5. All audio-visual equipment is removed, cleaned and stowed properly.
- 7.1.6. A post mission debrief will be conducted to give crew members the opportunity to discuss all aspects of the mission after arrival at location and/or mission termination. The degree of debrief formality and length will depend on the mission's complexity, but one will be conducted after all missions.

Chapter 8

COMBAT CAMERA PROCEDURES

8.1. General. The primary duty of the COMCAM aerial photographer is to document air operations. Primary duties include mission planning, coordinating and supervising maneuvers, and visually capturing events. The COMCAM aerial photographers:

- 8.1.1. Are fully certified, aircrew-qualified members for aerial documentation during peacetime and contingencies.
- 8.1.2. Are uniquely trained, equipped, and organized for rapid global deployment to document DoD and AF air operations and equipped for day/night operations.
- 8.1.3. Have advanced training in the operation of specialized photographic equipment approved for use at altitude.
- 8.1.4. Are trained and current in the aircraft systems required for safe operations.

8.2. Aerial Documentation Procedures. Aerial documentation is inherently dangerous and requires special attention by COMCAM aerial photographers.

- 8.2.1. COMCAM aerial photographers will wear their headsets to monitor the intercom, when available. Listen for directions and for any unexpected flight maneuvering.
- 8.2.2. COMCAM aerial photographers will not place themselves in a position to interfere with the visibility and/or duty performance of any aircrew member during operations.

8.3. Safety Responsibilities and Precautions. All COMCAM aerial photographers are responsible for enforcing and observing safety measures while performing the aerial documentation missions.

- 8.3.1. Emergency procedures outlined in aircraft technical orders, required directives, and abbreviated checklists must be reviewed frequently to ensure fully coordinated action of all COMCAM aerial photographers.
- 8.3.2. COMCAM aerial photographers must remain alert for unusual occurrences and immediately report any safety hazard to the loadmaster/boom operator, special mission aviator or pilot in command.
- 8.3.3. Adherence to crew resource management procedures/practices and constant situational awareness are keys to safe mission accomplishment.

8.4. Emergency Exits and Safety Aisles.

- 8.4.1. Do not secure aircraft or audio-visual equipment adjacent to an emergency exit in a manner that will prevent or impede egress.
- 8.4.2. During egress, ramps on all aircraft may be used if already deployed and unobstructed.

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DCS, Operations

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

AFPD 11-2, *Aircrew Operations*, 19 Jan 2012

AFI 33-360, *Publications and Form Management*, 1 Dec 2015

AFMAN 33-363, *Management of Records*, 1 Mar 2008

AFI 11-202 Volume 3, *General Flight Rules*, 10 Aug 2016

AFI 11-401, *Aviation Management*, 10 Dec 2010

AFI 48-123, *Medical Examinations and Standards*, 5 Nov 2013

AFI 11-301 Volume 1, *Aircrew Flight Equipment (AFE) Program*, 10 Oct 2017

AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*, 3 Aug 2017

AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, 18 Jul 2011

AFPD 11-4, *Aviation Service*, 1 Sep 2004

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 28 Oct 2011

AFI 35-109, *Visual Information*, 1 Jun 2017

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AF Form 847, *Recommendation for Change of Publication*, 22 Sep 2009

AF Form 1522, *ARMS Additional Training Accomplishment Report*, 1 Aug 2003

AF Form 4327a, *Crew Flight (FA) Authorization*, 1 Dec 2003

AF Technical Order 46, *Prepositioned Aircrew Flight Equipment*, 28 Nov 2012

AF Technical Order 781, *ARMS Aircrew/Mission Flight Data Document*, 3 Jul 2017

DD Form 2992, *Medical Recommendation for Flying or Special Operational Duty*, 1 Jan 2015

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFPAA—Air Force Public Affairs Agency

AFPD—Air Force Policy Directive

AFMAN—Air Force Manual

COMCAM—Combat Camera

CTCS—Combat Camera Squadron

DoD—Department of Defense

MAJCOM—Major Command

Attachment 2

COMBAT CAMERA AERIAL PHOTOGRAPHY CREW MEMBER EXPANDED CHECKLISTS

Table A2.1. Combat Camera Aerial Photography Expanded Checklists.

MISSION PLANNING			
Task	Yes	No	N/A
1. Administrative Duties			
a. Customer Meeting.			
(1) Necessity, purpose of mission.			
(2) Purpose of product			
(3) Assist the customer in determining what you can provide.			
b. Review flying restrictions (see AFI 11-202 Volume 3, Chapter 2)			
(1) Duties not involving flying			
(2) Self-medication			
(3) Insufficient crew rest (8 hours uninterrupted rest/12 hours total)			
(4) Alcohol and Immunizations (12 hours)			
(5) Scuba (24 hours)			
(6) 12 hours after completion of altitude chamber flight above 25,000 feet.			
(7) Giving blood (72 hours)			
(8) Suffering from illness			
(9) Undergoing severe personal problems			
(10) Crew Resource Management considerations that could jeopardize mission safety (illness, personal problems, fright, etc.)			
(11) Grounding items			
(a) Physiological training			
(b) Flight Physical			
(c) Ground egress training			
(d) Local area survival training			
c. Inspect/ops check flight gear & equipment prior to flight			
(1) Helmet w/oxygen mask & CRU-60			
(2) Flight suit w/patches & insignia			
(3) Flight boots			
(4) Flight gloves			
(5) Line badge			
(6) Dog tags			
(7) Hearing protection (ear plugs/headset)			
(8) Flashlight			
(9) Reflective belt			
(10) Switchblade/leatherman			
(11) Harness—presize (if needed)			
(12) Camera mounts			
(13) Lights (identify power requirements)			
(14) Camera gear (ops check)			
(15) Aircraft intercom adapters			
(16) Night vision (if needed)			
(17) G-suit (if needed)			
(18) Survival vest (if needed)			
(19) Should holster w/M-9 and magazines (if needed)			
(20) Overnight bag (if needed)			
(21) Personal survival kit			
(22) Crew book			

(a) Aeronautical orders			
(b) Temporary duty orders (if applicable)			
(c) AF Form 702 (Individual Physiological Training Record)			
(d) DD Form 2992 (<i>Medical Recommendation for Flying or Special Operational Duty</i>)			
(e) Official passport (if needed)			
(f) Shot record (if needed)			
(g) Survival school diplomas			
(h) Individual Data Summary			
(i) Individual Training Summary (or AF Form 1522 if just completed training)			

Table A2.2. Combat Camera Aerial Photography Expanded Checklists.

PRE-FLIGHT			
Tasks	Yes	No	N/A
1. Schedule/coordinate flight (48 hours prior to flight, if possible)			
a. Contact flying unit (locally accomplished by unit flying manager)			
b. Obtain flight information (write down)			
(1) Scheduler's name			
(2) Flying unit			
(3) Aircraft commander's name			
(4) Mission #/type – (local)			
(a) TPS (Tactical Proficiency Sorties) – single ship, low level, air refueling, touch & go			
(b) DDS (Direct Delivery Sortie) – multiple ship, airdrop, formation, air refueling, touch & go			
(5) Show time			
(6) Take-off time			
(7) Land time			
c. Schedule alert time/self alert (if needed)			
2. Schedule for egress training 48 hours prior to flight (if applicable)			
3. 24 hours prior to flight status check			
a. Properly scheduled for flight			
b. Name is on operations board			
c. Name is on flight authorization orders			
4. Check-in			
a. Prior to check-in, ops check equipment			
b. Sign-in according to local unit directives			
c. Can be different depending on unit, base, temporary duty, mission, & branch of service			
d. Write down aircraft tail # & parking spot			
e. Check flight authorization orders (name, social security number, aerial photographer crew position) (ensure above the line)			
f. Order flight meal (if needed)			
g. Check Flight Crew Info Folder for discrepancies			
5. Pre-flight briefing (w/flight crew)			
a. Introduce yourself and brief crew on your requirements. Before all training/evaluation missions, instructors/flight examiners will brief the aircrew on requirements and objectives for each student or examinee.			
(1) use of flash/lights/audio			
(2) Explain maneuver sequences (use story boards/photos, if possible)			
(3) Discuss equipment and its limitations			
(4) Possible delays during shooting			

(a) Card Swap			
(b) Retakes			
(c) Change lenses/batteries			
(5) Be professional & confident/competent			
(6) Discuss emergency requirements (radio transmissions/use of headset and identify emergency and communication signals/methods with the pilot and loadmaster/boom operator.)			
b. Ask for input/feedback			
c. Verify flight information and note changes			
d. Remove rings, scarf, and bracelets			
e. Remove patches/insignia (if required)			
f. Review Isolated Personnel Report (if required)			
g. Review Search and Rescue Special Instructions (if required)			
h. Secure "Blood Chit" (if required)			
i. Check Flight Crew Information File number			
6. Crew bus			
a. Contact local vehicle dispatch			
b. Know aircraft tail # and parking spot			

Table A2.3. Combat Camera Aerial Photography Expanded Checklists.

FLIGHT LINE			
Tasks	Yes	No	N/A
1. Safety check			
a. No hat area			
b. Ear plugs (APUs/engine running)			
c. No standing/walking 75 ft in front – 150 ft behind aircraft (engines running)			
d. Watch for moving aircraft & vehicles			
e. Walk around engines (engine orientation)			
(1) Pilot's view, left to right, engines 1 to 4			
f. Wear reflective gear			
g. Aircraft servicing restrictions (refueling, LOX, munitions upload, etc.)			
h. Egress off nose of aircraft as required for aircraft type			
2. Security Check			
a. Display flight line badge			
b. Challenge and detain anyone who doesn't display line badge			
c. Use controlled entry points			
d. Don't cross red lines & rubber donuts with rope			
e. Get Security Forces and Command Post clearance before shooting on flight line			
(1) Note name/phone #'s			
3. Arrival check at aircraft			
a. Become familiar with the variant of aircraft type			
(1) Do not assume anything!			
b. Loadmaster/boom operator coordination. Coordinate egress plan and mission unique items.			
(1) Coordinate all activities with loadmaster/boom operator			
(2) Notify loadmaster/boom operator before loading equipment on aircraft			
(3) Use a spotter when backing a vehicle up ramp; use chocks			
(4) Use of power outlets draw may pop circuit breakers. Equipment will not be plugged in until it has been coordinated with an aircraft crew member to include lights, battery chargers, etc. Equipment will not be plugged in until after the aircraft electrical system has been turned on.			
(5) Insure canopy/windows are cleaned			

(6) Lights should be hung and cables routed before flight			
(7) Get a thorough brief from loadmaster/boom operator			
c. Aircraft commander coordination			
(1) Ensure understanding of photo mission			
(2) Avoid flight deck during critical phases of flight or unless cleared by the aircraft crew			
(3) Inform when shooting on flight deck—especially with lights, flash, & recording sound			
d. Equipment storage			
(1) Secure bags			
(2) Inspect and configure harness to suitable hard point with the hook & pin & tie a half hitch with the webbing to the friction point—place harness out of way when not in use			
e. Oxygen/communication systems			
(1) Conduct PRICE check			
(a) Pressure			
(b) Regulator			
(c) Indicator			
(d) Connections			
(e) Emergency			
(2) Test intercom system			
f. Inspect and fit parachute			
g. Conduct final operational check of equipment			
h. Station/Cockpit brief			
(1) Ensure scarf & jewelry have been removed			
(2) Don flight gloves prior to engine start (as required)			
i. Don appropriate restraint device (harness, lap belt, etc.)			
j. Final cockpit briefing (fighter)			
(1) Remove lens caps, camera straps, etc.			
(2) Adjust rudder pedals & seat as directed by pilot			
(3) Egress			
(4) Strap in (as required)			
(a) “G” suit			
(b) Parachute/restraint harness (ensure all camera equipment is tethered to the individual and excess equipment secured during mission execution)			
(c) Survival kit			
(d) Interphone/oxygen mask			
(5) Set pin-removal/replacement (as directed by pilot)			

Table A2.4. Combat Camera Aerial Photography Expanded Checklists.

IN-FLIGHT			
Tasks	Yes	No	N/A
1. Safety check			
a. Stay clear of flight controls (yoke/stick, throttles, rudder pedals, ejection handles, etc.)			
b. Personal equipment			
(1) Helmet (visor lowered) and gloves must be worn during open door operations			
c. Safety devices			
(1) Re-inspect devices for defects; report deficiencies to loadmaster or crew chief			
(2) Properly don parachute, harness, or gunner’s belt (ensure harness or belt are secured to aircraft and length adjusted properly)			
d. Scanning			

(1) Assist aircrew in locating possible dangers (external/internal) to mission			
(2) Utilize clock/relative altitude positions (12 o'clock high, 3 o'clock low, factor/no factor)			
2. Procedures check			
a. Crew communication (intercom procedures, settings)			
(1) Use proper communication ("Pilot, COMCAM...")			
(2) Observe cold/hot mic discipline (keep chatter to a minimum)			
(3) Give brief, concise directions to pilot to maneuver your aircraft using "clock" & altitude, forward & aft, etc.			
(4) Alert aircrew of any unsafe situations			
(5) Stick to your mission planning when documenting on flight deck, especially with flash, lights, or recording sound			
b. Camera settings			
(1) Determine when to use 'auto' versus 'manual' exposure			
(2) Ensure audio is being recorded (check connections)			
(3) Select appropriate ISO/Gain/Camera settings for conditions			
(4) Select appropriate shutter speed (take rotary/prop aircraft into consideration)			
(5) Seek advice/techniques from other photographers			
c. Shooting techniques			
(1) Eliminate vibrations (avoid unnecessary contact with aircraft)			
(2) Avoid using long lenses in fighter aircraft (direct your aircraft to move closer to subject)			
(3) Employ specialized equipment (Tyler mounts, gyro zooms, remote mounts, and digital stabilization, lipstick cameras)			
(4) Avoid slipstream in doorways			
d. Get "the Complete Story"			
(1) Basic sequence			
(2) Interviews			
(3) Screen directions/transitions			
(4) Important shots (weapons deployment, airdrops, etc.)			
e. Reflection elimination			
(1) Blacking out anything shiny on the camera, yourself, & aircraft (coordination required)			
(2) Draping a dark cloth loosely over the instrument panel (for safety reasons, portions of the canopy should not be covered) (coordination required)			
(3) Remove patches			
(4) Using a foam donut around the barrel of the lens			
(5) Place lens close to window/canopy without touching it (use of soft lens hood is encouraged to prevent scratches)			
(6) Dim cockpit displays (if possible)			
(7) Maneuver airframe (if possible)			
f. Reloading cameras			
(1) Notify pilot prior to changing cards, batteries, lenses, etc. (if applicable)			
(2) Change cards/batteries/lenses at most opportunistic time			
(3) Secure excess cards, lenses, & batteries			
g. Keep equipment secure at all times			
(1) If any items are lost during flight, notify the aircraft crew immediately			
h. Prior to landing			
(1) Secure equipment			
(2) Don gloves and appropriate restraint device			
3. Mission Documentation			
a. Side by side formation takeoff			
(1) For video, continue running the camera as you have the subject aircraft move slightly higher than the photo chase immediately after takeoff. This will allow the			

ground transition to your high altitude scenes.			
b. Extreme long shot			
(1) This is especially useful in deployments to convey a feeling of vastness and a long distance of travel.			
c. Standard long & medium shots			
(1) Avoid shooting a profile shot. Position your aerial chase a little higher or lower than the one being photographed so that you can see the flat surface of the wing.			
d. Close-up of yourself			
(1) Always makes an interesting shot, particularly if you can see the horizon or another aircraft in the background. Make sure your helmet doesn't have a COMCAM patch or other distinctive markings that would detract from the scene. The parachute harness usually covers the unit patches on the flight jacket. Make sure to move your head to fit circumstances and maintain continuity/screen direction.			
e. Roll over the top			
(1) Effective if you have several aircraft in echelon formation. Very helpful if effecting screen direction changes in video.			
f. Close-up			
(1) Cockpit areas, insignias, etc.; a great aid in editing to break up your other scenes.			
g. Slide under (video)			
(1) Start your camera. Rolling with you chase aircraft to the side, and keep it rolling as you "slide" underneath of the climb back level with the subject aircraft.			
h. Low level			
(1) Frame aircraft to show terrain/landmarks.			
i. Multi-aircraft formation			

Table A2.5. Combat Camera Aerial Photography Expanded Checklists.

POST MISSION			
Tasks	Yes	No	N/A
1. Aircraft cleanliness			
a. Return all aircraft equipment (harness, straps...) to proper area			
b. Return seats to pre-flight configuration			
c. Remove trash/bodily fluids from aircraft			
d. Inventory/remove all equipment & personal gear			
e. Offer assistance to aircrew in the post flight duties			
2. Mission Debrief			
a. Discuss mission discrepancies, positive mission outcomes, etc.			
b. Finalize caption information			
c. Arrange for additional flights (if possible/needed)			
d. Request & provide aerial photography feedback			
e. Provide write-ups to aircrew (if necessary)			
f. Obtained signed extract, AF Technical Order 781 (Ensure Primary time logged)			
3. Flight Log check			
a. Record info in personal & squadron flight log			
(1) Aircraft commander's name			
(2) Aircraft tail #			
(3) Unit you flew with			
(4) Flight time			
(5) Type of aircraft			
(6) Date & # of sorties			
(7) Reason for flight			
4. Equipment Return			
a. Return helmet, mask, harness, and survival vest to Aircrew Flight Equipment section (if applicable) (Within 24 hours)			

	b. Return checked out camera equipment			
	c. Turn in broken equipment to maintenance			
5. Imagery Review				
	a. Evaluate and caption imagery			
	b. Edit imagery (if required)			
	c. Ensure proper disposition of imagery to customer, DVIDS, or both			

Table A2.6. Combat Camera Aerial Photography Expanded Checklists.

EMERGENCY PROCEDURES				
FUSELAGE FIRE/SMOKE AND FUMES ELIMINATION		Yes	No	N/A
1. Oxygen "On, 100%" (ALL)				
	NOTE: Protective breathing equipment or emergency passenger oxygen system may be used if oxygen mask/eye protection are not available.			
	NOTE: The MA-1 portable oxygen bottle delivers 100% oxygen at all settings. The regulator does not have to be turned to "emergency" to provide 100% oxygen.			
	WARNING: Removal of oxygen masks when smoke or fumes are present can result in personal injury or death.			
2. Crew Alerted				
	a. Notify loadmaster/boom operator/pilot (if origin of fire is in cabin) of nature of emergency.			
3. During an aircraft emergency, COMCAM will follow the directions provided by aircrew.				
	NOTE: The pilot/loadmaster/boom operator will direct crew members to fight the fire as required. Crew members not directly involved with combating the fire will proceed with their emergency procedures checklist.			
	WARNING: Although Halon 1211 vapor has a low toxicity, its decomposition products can be hazardous. On decomposition, Halon 1211 has a characteristic sharp, acrid odor, even in concentrations of only a few parts per million. The odor provides a built-in warning system for the agent and at the same time creates a noxious, irritating atmosphere for those who are in the hazard area during and following a fire. Leave and/or ventilate area after fighting a fire.			
	NOTE: To use the Halon 1211 fire extinguisher, hold a vertical position, about eight feet from the fire. Remove the pull-ring pin and aim nozzle at base of the fire. Squeeze lever and sweep agent across base of fire.			
EMERGENCY PROCEDURES				
RAPID DECOMPRESSION		Yes	No	N/A
1. Oxygen "On, 100%" (ALL)				
	NOTE: The MA-1 portable oxygen bottle delivers 100% oxygen at all settings. The regulator does not have to be turned to "emergency" to provide 100% oxygen.			
2. Crew member Secured (as required)				
	a. If structural damage or aircraft flight maneuvers preclude personnel safety without a seat belt, crew members will make every effort to secure themselves in any available seat until it is safe to move about the cabin.			
	NOTE: Rapid decompression is not accompanied by unusual aircraft movements, COMCAM aerial photographers will remain seated until further instructions.			
EMERGENCY PROCEDURES				
EMERGENCY SIGNALS		Yes	No	N/A
1. Pilots verbal warning and instructions will be given over the aircrafts interphone/public address system				
2. Alarm bell signals				
	a. Ground evacuation- one long, sustained blast			
	b. Ditching or crash landing immediately after takeoff- one long, sustained blast			
	c. Prepare for ditching or crash landing- six short blasts			
	d. Brace for impact- one long, sustained blast			
	e. Prepare for bailout- three short blasts			
	f. Bailout- one long, sustained blast			
	g. Immediate bailout- pilot will sound the warning horn and transmit "bailout, bailout, bailout" over the public address system			

	NOTE: The word "Ground" has six letters = six blasts of the horn. "Air" has three letters = three blasts of the horn.			
EMERGENCY PROCEDURES				
IN-FLIGHT DOOR WARNING		Yes	No	N/A
1. Oxygen as required				
	a. The pilot will direct all crew members to don oxygen (as appropriate)			
2. Crew notified				
3. Passengers secured				
4. Crew members secured				

Table A2.7. Combat Camera Aerial Photography Expanded Checklists.

FIRST ACTION	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER LANDING
1. Acknowledge pilot's order to prepare for emergency landing. Coordinate egress with the pilot in command/loadmaster/boom operator. 2. Prepare for landing. a. Identify emergency exits to be used and order in which to evacuate. b. Position to assume at the "Brace for Impact" signal (one long sustained ring/horn blast on alarm bell/horn). (1) Side/forward facing seats - lean forward, place hands behind neck and pull head to knees; elbows should be outside of knees. (2) Aft facing seats – sit erect with head firmly against headrest, arms grasping armrests. 3. Secure equipment. a. Secure all personal and COMCAM equipment. 4. Report equipment secured to loadmaster/boom operator.	1. Take assigned seat. 2. Fasten seat belt. 3. Assume ditching position at "Brace for Impact" signal.	1. Flashlight	1. Assigned seat.	1. Remain seated until aircraft has come to a complete stop. 2. Open exits. Open available exits as directed per egress plan or by the pilot in command/loadmaster/boom operator. 3. Direct and assist passenger egress per egress plan or as directed by the pilot in command/loadmaster/boom operator. 4. Evacuate aircraft through designated exit.