

**20 APRIL 2004**

**Flying Operations**



**AIR FORCE AIRCRAFT DEMONSTRATIONS  
(C-17, C-130, C-141, C/KC/NKC-135, UH-1)**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements guidance in AFD 11-2, *Flight Rules And Procedures*, and AFI 11-209, *Air Force Aerial Events*. It provides guidance and procedures in performing specified aircraft capabilities demonstrations using specific Air Force model, design, series (MDS) aircraft. It designates Air Mobility Command as lead command for aircraft capabilities demonstrations applicable to C-5, C-9, C-12, C-17, C-20, C-21, C-22, C-32, C-37, C-38, C-130, C-141, E-4, KC-10, KC-135, C-135, NKC-135, UH-1N, and VC-25 aircraft. For the purpose of this instruction, the Air National Guard is functionally considered to be a major command (MAJCOM). MAJCOMs, field operating agencies (FOA) and direct reporting units (DRU) may supplement this instruction. Forward one copy to HQ AMC/A33 and HQ USAF/XOOO after publication. See **Attachment 1** for a glossary of references and supporting information. Ensure all records created by this AFI are maintained and disposed of IAW AFMAN 37-139, "Records Disposition Schedule."

**SUMMARY OF REVISIONS**

IC 2004-1 accomplishes the following: 1) Corrects the AMC web site address; 2) Clarifies Flyover and Aerial Review concepts; 3) Expands the definition of Aircraft Capabilities Demonstration; 4) Explains the process for changing or creating new Standard Profiles; 4) Modifies the Standard Profiles for the C-17 and C-130, adding formation airdrops; 5) Modifies the UH-1N Standard profiles, adding formation and AIE procedures (authorizes insertion/extraction of personnel); 6) Expands options for "Critique and Review Process;" 7) Adds Table A-1 to the Terms section of **Attachment 1**; 8) Adds selected Terms to **Attachment 1**; and, 9) Updates the Standard Profiles on the AMC web site to reflect these changes. See the last attachment of the publication, IC 04-1, for the complete IC. **NOTE: A VERTICAL BAR IN THE LEFT MARGIN IDENTIFIES TEXT CHANGED BY IC 2004-1.**

## Chapter 1

### GENERAL INFORMATION

**1.1. INTRODUCTION.** USAF uses aerial demonstrations to exhibit the capabilities of USAF aircraft. AMC is designated lead command and will establish criteria for aircraft capabilities demonstrations for C-5, C-9, C-12, C-17, C-20, C-21, C-22, C-32, C-37, C-38, C-130, C-141, E-4, KC-10, KC-135, C-135, NKC-135, UH-1, and VC-25 aircraft. MAJCOMs flying aircraft capabilities demonstrations with these MDS aircraft will comply with this instruction. The directives listed in **Attachment 1** provide further policy or procedural guidance in the conduct of these events. Flying procedures and guidance within this AFI do not constitute authority to deviate from AFI 11-209, *Air Force Participation in Aerial Events*, AFI 11-2MDS, Vol 1, *MDS Aircrew Training*, AFI 11-2MDS, Vol 3, *MDS Operations Procedures*, and AFI 11-202, Vol 3, *General Flight Rules*.

**1.2. Terms Explained.** Unless otherwise indicated, terms and definitions used in AFI 11-209, *Air Force Participation in Aerial Events*; AFI 35-101, *Public Affairs Policies and Procedures*; and this instruction are the same. For the purposes of this AFI, the terminology “aircraft capabilities demonstration,” “aircraft demonstration” and “aircraft capability exercise (CAPEX)” are used interchangeably. See **Attachment 1** for Terms.

**1.3. Flyovers and Aerial Reviews.** AFI 11-209, *Air Force Aerial Events*, provides guidance for flyovers (including funeral service, memorial service or memorial flyovers) and aerial reviews. Additional guidance appears in AFI 11-2MDS, Vol 1, *MDS Aircrew Training*, AFI 11-2MDS, Vol 3, *MDS Operations Procedures*, AFI 11-202, Vol 3, *General Flight Rules*, and in MAJCOM directives. Flyovers (whether flown by an aircraft in “clean” configuration or by an aircraft configured with landing gear and/or flaps and/or boom deployed) and aerial reviews are not aircraft capabilities demonstrations, as defined in this instruction, and are not specifically addressed in this instruction.

**1.4. Aircraft Capabilities Demonstration.** Aircraft capabilities demonstrations (applicable to fixed or rotary wing) include the following: Aerobatics; Assault Landing; Assault Takeoff; Maximum Performance Takeoff; Tactical Takeoff; Tactical Departure; Aircraft High Performance Maneuvering; Personnel Airdrop (High Altitude Low Opening (HALO) or Static Line); Equipment Airdrop; Container Delivery System (CDS) Airdrop; Aircraft Weapons or Tactics Demonstration; and, Helicopter Flight Demonstrations consisting of steep approach, quick-stop landing, hovering, fire suppression, and personnel Alternate Insertion/Extraction (AIE) (See **Attachment 1, Table A1**). Engine Running Offload (ERO) and Aircraft Backing maneuvers are also aircraft capabilities demonstrations when executed as part of an aerial performance scenario that includes ground operations. All the following expressions mean the same as “aircraft capabilities demonstration”: Aerial Demonstration (Aerial Demo); Aircraft Demonstration (Aircraft Demo); Capabilities Demonstration, and [Aircraft] Capabilities Exercise (CAPEX). HQ AMC has developed aircraft capabilities demonstrations in the form of “Standard Profiles” for the following MDS aircraft, only: C-17, C-130, C-141, KC-135 (including C-135 & NKC-135), and UH-1N. MAJCOMs operating these aircraft to perform aircraft capabilities demonstrations will adhere to the Standard Profiles in **Chapter 3**.

**1.5. Non-Standard Profiles.** Aircrews desiring to fly a “one-time” aircraft capabilities demonstration differing from the standard profiles in **Chapter 3** must gain participation approval from their respective

MAJCOM/CC (can be delegated to MAJCOM/DO) for the non-standard profile. In the approval request, explain why the standard profiles are not applicable and include sufficient information on the proposed non-standard profile to permit evaluation at the headquarters.

1.5.1. The information submitted to the MAJCOM headquarters will include a brief synopsis of what will take place and will address the following issues, at a minimum:

- 1.5.1.1. MDS aircraft (and number) and types of formations (similar/dissimilar), if applicable
- 1.5.1.2. Airspeeds and altitudes to be flown
- 1.5.1.3. Holding patterns, if applicable
- 1.5.1.4. Ground tracks to be flown (entry/demonstration/exit tracks)
- 1.5.1.5. Type of aircraft capabilities demonstration to be flown
- 1.5.1.6. Type of airdrop (personnel/heavy equipment/CDS—include airdrop intended point of impact relative to the crowd line and show line), if applicable
- 1.5.1.7. On-scene ground supervisor and on-scene communications and control procedures
- 1.5.1.8. Qualification and certification of the participating aircrew members in the maneuvers to be flown.

1.5.2. The authority delegated to MAJCOMS in paragraph 1.5, above, to approve non-standard profiles is intended to expedite the approval process for “one-time” aircraft capabilities demonstrations flown in unique situations.

**1.6.** Waiver Authority. HQ USAF/XO delegates waiver authority for this instruction to HQ AMC/CC.

**1.7.** MAJCOMS will submit proposals to change AFI 11-246, Vol 6, to change the existing standard profiles, or to create entirely new profiles for aircraft capabilities demonstrations to HQ AMC (OPR: AMC/A330, DSN 779-2089)—AMC/CC delegates approval authority to AMC/A3. Proposals should be approved at the MAJCOM before being submitted to HQ AMC. Once approved at HQ AMC, change proposals are forwarded to AF/XO for final approval.

## Chapter 2

### AIRCREW TRAINING, QUALIFICATION, CERTIFICATION & CRITIQUE

**2.1. Requirements.** AMC, AETC, ACC, AFRC, PACAF, USAFE, AFMC, AFSPC and ANG aircrews flying the MDS aircraft in paragraph 1.4. to perform aircraft demonstrations must be trained, qualified and certified in the maneuvers being flown. Aircrew performance during aircraft capabilities demonstrations flown at military or civilian events will be critiqued with results reported to the MAJCOM. RCS: HAF-XOO(AR)0212, continue reporting during emergency conditions, delayed precedence. Submit data requirements as prescribe, but may be delayed to allow the submission of higher precedence reports.

**2.2. Training and Qualification.** The standard profiles for aircraft capabilities demonstrations are compilations of basic flying maneuvers such as assault takeoff/landing, personnel/equipment airdrop, random steep approach, spiral up departure, closed traffic pattern, in flight refueling procedures, hovering procedures, aircraft backing procedures etc. AFI 11-2MDS, Volumes I, II and III fully documents these basic flying procedures and aircraft maneuvers—MAJCOMs will ensure all aircrew members who fly the standard profiles at approved events are trained and qualified in these basic flying procedures and aircraft maneuvers. Training and qualification will normally be accomplished at the wing level IAW applicable Air Force Instructions, MAJCOM Instructions and procedures, and Wing training and evaluation procedures. Guidance for aircrew training and qualification, in addition to the AFI 11-2MDS series of instructions, appears in AFI 11-202, Vol 1, *Aircrew Training*, and AFI 11-401, *Flight Management*.

**2.3. MAJCOM Certification Process.** MAJCOMs will delineate in a supplement to this AFI or other suitable publication, such as a concept of operations (CONOPS), the processes in place to certify their aircrews to fly the standard profiles, i.e., to certify their aircrews in the basic flying procedures and aircraft maneuvers constituting the approved aircraft capabilities demonstrations.

**2.4. Participation Approval Procedures.** AFI 11-209 and MAJCOM supplements describe the approval process for Air Force aerial participation in approved military and civilian events such as military open houses, civilian air shows, international air and trade shows, etc. All requests for participation approval to fly an aircraft capabilities demonstration in an approved event must flow through proper channels, must clearly specify the MDS and standard profile to be flown, and must warrant that the aircrew is qualified and certified in the maneuvers to be flown.

**2.5. Critique and Review Process.** MAJCOMs will implement procedures to critique the flying performances of their own aircrews participating in aircraft capabilities demonstrations flown at military and civilian events and to review the results at the appropriate headquarters level. The process will be documented in the MAJCOM supplement or CONOPS and will specify the criteria for the critique, the content guidelines and format for the critique results, the medium for communicating the results, and the headquarters level to which the results are to flow.

2.5.1. When the presence of an Aerial Control Team (ACT) is required by AFI 11-209 at a military or civilian event, the MAJCOM will coordinate with the ACT, arranging for the team chief to critique aircrew performance and forward results to the appropriate headquarters level.

2.5.2. If the ACT will not be present, the MAJCOM will coordinate with the event on-scene ground supervisor to perform the critique and forward results to the appropriate headquarters level.

2.5.3. If neither an ACT nor an on-scene ground supervisor (or Air Boss) are available, the MAJCOM can assign an additional pilot or navigator to the aircrew to perform an airborne critique and forward the results to the appropriate headquarters level.

2.5.4. If the proposed guidelines in paragraphs 2.5.1. through 2.5.3., above, are not workable or not practical for a given situation, a final alternative is to simply ask the aircrew about their flying performance upon their return to home station (i.e., interview the aircrew). The purpose of the interview is to ascertain the aircrew's own assessment of their flying performance—an appropriate level of leadership within the wing to which the aircrew is assigned will conduct the interview. The results will be forwarded to the appropriate headquarters level. The MAJCOM will develop this procedure in the MAJCOM supplement or CONOPS to this instruction, specifying the level of wing leadership to conduct the interview and the headquarters level to which the feedback will be forwarded.

## Chapter 3

### STANDARD PROFILES

**3.1.** The Standard Profiles for the C/KC/NKC-135, C-141, C-130, C-17 and UH-1N aircraft are at <https://private.amc.af.mil/a3/a3o/A330/index.htm>, the AMC web site (A330 home page). Click on the desired MDS aircraft to view a specific standard profile. The profiles are based on the aircraft capabilities demonstrations listed in paragraph 1.4., having been compiled from basic flying maneuvers common to the MDS selected. The profiles by MDS are summarized here.

**3.2.** KC-135 Stratotanker (Includes C-135 and NKC-135). Profile 1 is an aircraft capabilities demonstration of approximately seven minutes duration. It begins with a take off to a VFR closed pattern followed by high-speed and low-speed passes and ends with a full stop at the same airfield.

**3.3.** C-141 Starlifter. Profile 1 is an aircraft capabilities demonstration that starts with the C-141 already airborne. The aircraft capabilities demonstrated follow in this sequence: personnel airdrop; airdrop escape; VFR overhead pattern; and, finally a full stop landing. Profile 2 is an aircraft capabilities demonstration that begins with a C-141 on the airfield. The aircraft capabilities demonstrated follow in this sequence: take off; spiral-up tactical departure; overhead VFR pattern; and, full stop recovery at the same airfield.

**3.4.** C-130 Hercules. Profile 1 is an aircraft capabilities demonstration (airdrop) flown by a single-ship C-130 or a C-130 formation. A C-130 formation may contain multiple elements involving a number of aircraft up to the limits authorized by DoD, USAF and AMC guidance. Mission planners may use any combination of C-130 single-ships and formations to airdrop heavy equipment (HE), Container Delivery System (CDS) supply containers and personnel—all as part of the same capabilities demonstration—to present the full range of C-130 delivery capabilities. The aircraft capabilities demonstrated include: Personnel airdrop (HALO / Static Line); Equipment airdrop (heavy equipment / CDS); Random steep or shallow approach; Assault landing; Backing demonstration (optional ERO or upload); and, Assault takeoff (maximum effort takeoff). Profile 2 is an aircraft capabilities demonstration that starts with an assault takeoff (maximum effort takeoff) and includes the following: Random shallow or steep approach; Assault landing; Backing demonstration (optional ERO or upload); and, Optional assault takeoff (maximum effort takeoff). Profile 3 is an aircraft capabilities demonstration starting with a C-130 already airborne and includes the following: Random shallow or steep approach; Assault landing; Backing demonstration (optional ERO or upload); and, Optional assault takeoff (maximum effort takeoff).

**3.5.** C-17 Globemaster. Profiles 1, 2, and 3 are aircraft capabilities demonstrations involving the performance maneuvering of the aircraft in a runway environment, each with a different duration: 6, 10, and, 12 minutes, respectively. Profile 4 depicts three separate aircraft capabilities demonstrations—basic airdrop, overhead pattern to a simulated short-field landing (optional backing demonstration and ERO/upload), and, an assault takeoff (maximum effort takeoff). The airdrop demonstration is flown by a single-ship C-17 or a C-17 formation. A C-17 formation may contain multiple elements involving a number of aircraft up to the limits authorized by DoD, USAF and AMC guidance. Mission planners may use any combination of C-17 single-ships and formations to airdrop heavy equipment (HE), Container Delivery System (CDS) supply containers and personnel—all as part of the same capabilities demonstration—to present the full range of C-17 delivery capabilities.

**3.6. UH-1 Iroquois.** All demonstrations will be performed over a runway or open area (taxiway, grass infield, etc.) at a military or civilian airfield, or over an open area not associated with an airfield that meets USAF/FAA requirements for a helicopter landing site or flight demonstration site. All profiles involving Alternate Insertion/Extractions (AIE) may include actual insertion and extraction of qualified personnel. Authorized AIEs are those listed in AFI 11-2H-1, Vol 3, Helicopter Operations, and MAJCOM supplements. They will be performed at an altitude consistent with the unit's mission and governing directives. Profile 1 is an aircraft capabilities demonstration highlighting a steep approach to landing (optional maneuvers include a hover or AIE demonstration) followed by a maximum performance takeoff and departure. As a guide, the hover demonstration is performed at approximately four feet and may include a 180° turn about the transmission, a 180° turn about the nose and a 360° turn about the tail (all with a maximum turn rate of 90 degrees in four seconds). Profile 2 is flown as a single-ship or a formation. The size and composition of the formation will be similar to that required by the unit's typical operational or training mission profile. The aircraft or formation approaches the landing area low-level at 90 KIAS. The crew performs a tactical approach and quick-stop maneuver, followed by a landing or AIE demonstration. After the landing or AIE is complete, the aircrew egresses the area with a tactical departure. Profile 3 consists of a fire suppression demonstration using the "Bambi Bucket." Simulated employment altitudes and airspeeds will be IAW MAJCOM procedures—the fire is simulated. The aircraft then departs the area. Profile 4 demonstrates a basic static line and/or HALO personnel airdrop and is performed over a Service-approved drop zone or over a military or civilian airfield. Following release, the helicopter departs the area.

RONALD E. KEYS, Lt Gen, USAF  
DCS/Air and Space Operations

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

*The following references contain authorities for participation in aerial events:*

DoD Directive 5410.18, *Community Relations*

DoD Instruction 5410.19, *Armed Forces Community Relations*

*North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) 3533*

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-2MDS, Vol 1, *MDS Aircrew Training*

AFI 11-202, Vol 3, *General Flight Rules*

AFI 11-209, *Air Force Participation in Aerial Events*

AFI 11-401, *Flight Management*

AFMAN 34-242, *Mortuary Affairs Program*

AFI 35-101, *Public Affairs Policies and Procedures*

DD Form 2535, *Request for Military Aerial Support*

#### *Terms*

**Aerial Performance**—A subset of Aviation Support involving the exhibition of an aircraft in flight. This generic phrase includes virtually every type of aerial participation in military or civilian events: flyover, aerial review and aircraft capabilities demonstration (see definitions, below, for each of these). See Table A-1, below.

**Aircraft Capabilities Demonstration**—An aerial performance in which an aircraft (fixed or rotary wing) conducts maneuvers usually associated with its employment and which are common to the airframe being shown. The purpose is to illustrate the unique flying capabilities of the aircraft. Aircraft capabilities demonstration includes the following: Aerobatics; Assault Landing; Assault Takeoff; Maximum Performance Takeoff; Tactical Takeoff; Tactical Departure; Aircraft High Performance Maneuvering; Personnel Airdrop (High Altitude Low Opening (HALO) or Static Line); Equipment Airdrop; Container Delivery System (CDS) Airdrop; Aircraft Weapons or Tactics Demonstration; and, Helicopter Flight Demonstrations consisting of steep approach, quick-stop landing, hovering, fire suppression, and personnel Alternate Insertion/Extraction (AIE). Engine Running Offload (ERO) and Aircraft Backing maneuvers are also aircraft capabilities demonstrations when executed as part of an aerial performance scenario that includes ground operations. The following phrases are synonymous with the phrase “aircraft capabilities demonstration” and can be used interchangeably: Aerial Demonstration (Aerial Demo); Aircraft Demonstration; Capabilities Demonstration; and, [Aircraft] Capabilities Exercise (CAPEX). See Table A-1, below.

**Aviation Support**—Aviation support is an overarching class of aviation-related activities, including exhibits or displays, provided to military or civil event sponsors. It includes the following categories: 1) Aircraft static display; and, 2) Aerial performance. Aerial Performance is broken down as follows: 1)

Parachute Demonstration Team; 2) Flyover; 3) Aerial review; and, 4) Aircraft Capabilities Demonstration. A whole family of flying activities falls under Aircraft Capabilities Demonstration (See definition, above, and Table A-1, below).

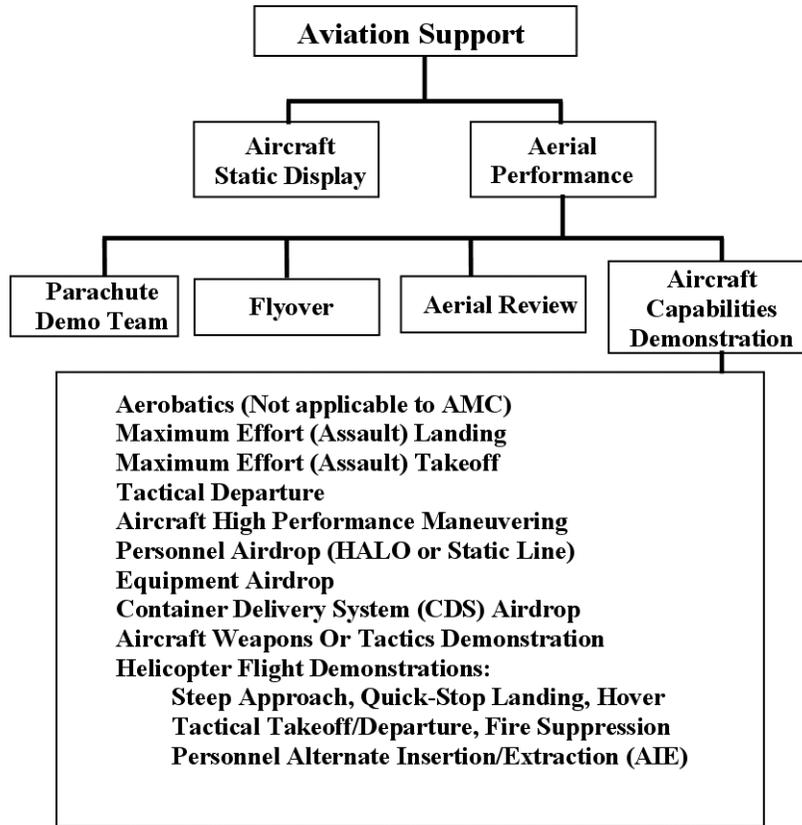
**Civil Event**—Affairs or occurrences that are of, pertaining to, or befitting ordinary citizens and associated with ordinary community life, as distinguished from the military—in essence, they are non-military, civilian occasions and can be either domestic (i.e., U.S.) or foreign.

**Funeral Service, Memorial Service or Memorial Flyover**—An aerial performance consisting of a single-pass flyover at a funeral service, memorial service or memorial event, respectively, by a single aircraft or by as single formation (up to four aircraft). The formation may be flown as a missing-man formation, with the appropriate approval.

**High Altitude Low Opening (HALO) Airdrop Demonstration**—An aircraft capabilities demonstration involving the airdrop of a qualified parachute demonstration team from an altitude prescribed in the team's governing directives (usually above 5,000 AGL). The parachutists free fall to a predetermined altitude before deploying their parachutes to complete the descent.

**Military Event**—A U.S. military affair, celebration, occasion or ceremony held on a DoD installation and serving to celebrate military traditions (retreat ceremonies, military parades, changes of command, dedications of military schools or building, etc.), to formally recognize a military member or group (military funeral services, memorial services, memorial occasions, etc.) or to display Air Force resources or capabilities (base Open House event, CAPSTONE Aerospace Power Demonstration, etc.). Military events may or may not be open to the general public. Military events sponsored by other nations will be clearly referred to as “foreign military events.”

**Table A1. Classification of Aviation Support.**



**Attachment 2****IC 2004-1 TO AFI 11-246, VOLUME 6,  
AIR FORCE AIRCRAFT DEMONSTRATIONS (C-17, C-130, C-141, C/KC/NKC-135, UH-1N)****20 April 2004****SUMMARY OF REVISIONS**

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**1.3. Flyovers and Aerial Reviews.** AFI 11-209, *Air Force Aerial Events*, provides guidance for flyovers (including funeral service, memorial service or memorial flyovers) and aerial reviews. Additional guidance appears in AFI 11-2MDS, Vol 1, *MDS Aircrew Training*, AFI 11-2MDS, Vol 3, *MDS Operations Procedures*, AFI 11-202, Vol 3, *General Flight Rules*, and in MAJCOM directives. Flyovers (whether flown by an aircraft in "clean" configuration or by an aircraft configured with landing gear and/or flaps and/or boom deployed) and aerial reviews are not aircraft capabilities demonstrations, as defined in this instruction, and are not specifically addressed in this instruction.

**1.4. Aircraft Capabilities Demonstration.** Aircraft capabilities demonstrations (applicable to fixed or rotary wing) include the following: Aerobatics; Assault Landing; Assault Takeoff; Maximum Performance Takeoff; Tactical Takeoff; Tactical Departure; Aircraft High Performance Maneuvering; Personnel Airdrop (High Altitude Low Opening (HALO) or Static Line); Equipment Airdrop; Container Delivery System (CDS) Airdrop; Aircraft Weapons or Tactics Demonstration; and, Helicopter Flight Demonstrations consisting of steep approach, quick-stop landing, hovering, fire suppression, and personnel Alternate Insertion/Extraction (AIE) (See **Attachment 1, Table A1.**). Engine Running Offload (ERO) and Aircraft Backing maneuvers are also aircraft capabilities demonstrations when executed as part of an aerial performance scenario that includes ground operations. All the following expressions mean the same as "aircraft capabilities demonstration": Aerial Demonstration (Aerial Demo); Aircraft Demonstration

(Aircraft Demo); Capabilities Demonstration, and [Aircraft] Capabilities Exercise (CAPEX). HQ AMC has developed aircraft capabilities demonstrations in the form of “Standard Profiles” for the following MDS aircraft, only: C-17, C-130, C-141, KC-135 (including C-135 & NKC-135), and UH-1N. MAJCOMs operating these aircraft to perform aircraft capabilities demonstrations will adhere to the Standard Profiles in [Chapter 3](#).

1.5.2. The authority delegated to MAJCOMS in paragraph 1.5, above, to approve non-standard profiles is intended to expedite the approval process for “one-time” aircraft capabilities demonstrations flown in unique situations.

1.7. MAJCOMs will submit proposals to change AFI 11-246, Vol 6, to change the existing standard profiles, or to create entirely new profiles for aircraft capabilities demonstrations to HQ AMC (OPR: AMC/A330, DSN 779-2089)—AMC/CC delegates approval authority to AMC/A3. Proposals should be approved at the MAJCOM before being submitted to HQ AMC. Once approved at HQ AMC, change proposals are forwarded to AF/XO for final approval.

2.5.3. If neither an ACT nor an on-scene ground supervisor (or Air Boss) are available, the MAJCOM can assign an additional pilot or navigator to the aircrew to perform an airborne critique and forward the results to the appropriate headquarters level.

2.5.4. If the proposed guidelines in paragraphs 2.5.1 through 2.5.3, above, are not workable or not practical for a given situation, a final alternative is to simply ask the aircrew about their flying performance upon their return to home station (i.e., interview the aircrew). The purpose of the interview is to ascertain the aircrew’s own assessment of their flying performance—an appropriate level of leadership within the wing to which the aircrew is assigned will conduct the interview. The results will be forwarded to the appropriate headquarters level. The MAJCOM will develop this procedure in the MAJCOM supplement or CONOPS to this instruction, specifying the level of wing leadership to conduct the interview and the headquarters level to which the feedback will be forwarded.

3.1. The Standard Profiles for the C/KC/NKC-135, C-141, C-130, C-17 and UH-1N aircraft are at <https://private.amc.af.mil/a3/a30/A330/index.htm>, the AMC web site (A330 home page). Click on the desired MDS aircraft to view a specific standard profile. The profiles are based on the aircraft capabilities demonstrations listed in paragraph 1.4., having been compiled from basic flying maneuvers common to the MDS selected. The profiles by MDS are summarized here.

4. C-130 Hercules. Profile 1 is an aircraft capabilities demonstration (airdrop) flown by a single-ship C-130 or a C-130 formation. A C-130 formation may contain multiple elements involving a number of aircraft up to the limits authorized by DoD, USAF and AMC guidance. Mission planners may use any combination of C-130 single-ships and formations to airdrop heavy equipment (HE), Container Delivery System (CDS) supply containers and personnel—all as part of the same capabilities demonstration—to present the full range of C-130 delivery capabilities. The aircraft capabilities demonstrated include: Personnel airdrop (HALO / Static Line); Equipment airdrop (heavy equipment / CDS); Random steep or shallow approach; Assault landing; Backing demonstration (optional ERO or upload); and, Assault takeoff (maximum effort takeoff). Profile 2 is an aircraft capabilities demonstration that starts with an assault takeoff (maximum effort takeoff) and includes the following: Random shallow or steep approach; Assault landing; Backing demonstration (optional ERO or upload); and, Optional assault takeoff (maximum effort takeoff). Profile 3 is an aircraft capabilities demonstration starting with a C-130 already airborne and includes the following: Random shallow or steep approach; Assault landing; Backing demonstration (optional ERO or upload); and, Optional assault takeoff (maximum effort takeoff).

**3.5. C-17 Globemaster.** Profiles 1, 2, and 3 are aircraft capabilities demonstrations involving the performance maneuvering of the aircraft in a runway environment, each with a different duration: 6, 10, and, 12 minutes, respectively. Profile 4 depicts three separate aircraft capabilities demonstrations—basic airdrop, overhead pattern to a simulated short-field landing (optional backing demonstration and ERO/upload), and, an assault takeoff (maximum effort takeoff). The airdrop demonstration is flown by a single-ship C-17 or a C-17 formation. A C-17 formation may contain multiple elements involving a number of aircraft up to the limits authorized by DoD, USAF and AMC guidance. Mission planners may use any combination of C-17 single-ships and formations to airdrop heavy equipment (HE), Container Delivery System (CDS) supply containers and personnel—all as part of the same capabilities demonstration—to present the full range of C-17 delivery capabilities.

**3.6. UH-1 Iroquois.** All demonstrations will be performed over a runway or open area (taxiway, grass infield, etc.) at a military or civilian airfield, or over an open area not associated with an airfield that meets USAF/FAA requirements for a helicopter landing site or flight demonstration site. All profiles involving Alternate Insertion/Extractions (AIE) may include actual insertion and extraction of qualified personnel. Authorized AIEs are those listed in AFI 11-2H-1, Vol 3, Helicopter Operations, and MAJCOM supplements. They will be performed at an altitude consistent with the unit's mission and governing directives. Profile 1 is an aircraft capabilities demonstration highlighting a steep approach to landing (optional maneuvers include a hover or AIE demonstration) followed by a maximum performance takeoff and departure. As a guide, the hover demonstration is performed at approximately four feet and may include a 180° turn about the transmission, a 180° turn about the nose and a 360° turn about the tail (all with a maximum turn rate of 90 degrees in four seconds). Profile 2 is flown as a single-ship or a formation. The size and composition of the formation will be similar to that required by the unit's typical operational or training mission profile. The aircraft or formation approaches the landing area low-level at 90 KIAS. The crew performs a tactical approach and quick-stop maneuver, followed by a landing or AIE demonstration. After the landing or AIE is complete, the aircrew egresses the area with a tactical departure. Profile 3 consists of a fire suppression demonstration using the "Bambi Bucket." Simulated employment altitudes and airspeeds will be IAW MAJCOM procedures—the fire is simulated. The aircraft then departs the area. Profile 4 demonstrates a basic static line and/or HALO personnel airdrop and is performed over a Service-approved drop zone or over a military or civilian airfield. Following release, the helicopter departs the area.

## **Attachment 1**

### ***Terms***

**Aerial Performance**—A subset of Aviation Support involving the exhibition of an aircraft in flight. This generic phrase includes virtually every type of aerial participation in military or civilian events: flyover, aerial review and aircraft capabilities demonstration (see definitions, below, for each of these). See Table A-1, below.

**Aircraft Capabilities Demonstration**—An aerial performance in which an aircraft (fixed or rotary wing) conducts maneuvers usually associated with its employment and which are common to the airframe being shown. The purpose is to illustrate the unique flying capabilities of the aircraft. Aircraft capabilities demonstration includes the following: Aerobatics; Assault Landing; Assault Takeoff; Maximum Performance Takeoff; Tactical Takeoff; Tactical Departure; Aircraft High Performance Maneuvering; Personnel Airdrop (High Altitude Low Opening (HALO) or Static Line); Equipment Airdrop; Container Delivery System (CDS) Airdrop; Aircraft Weapons or Tactics Demonstration; and, Helicopter Flight Demonstrations consisting of steep approach, quick-stop landing, hovering, fire suppression, and personnel Alternate

Insertion/Extraction (AIE). Engine Running Offload (ERO) and Aircraft Backing maneuvers are also aircraft capabilities demonstrations when executed as part of an aerial performance scenario that includes ground operations. The following phrases are synonymous with the phrase “aircraft capabilities demonstration” and can be used interchangeably: Aerial Demonstration (Aerial Demo); Aircraft Demonstration; Capabilities Demonstration; and, [Aircraft] Capabilities Exercise (CAPEX). See Table A-1, below.

**Aviation Support**—Aviation support is an overarching class of aviation-related activities, including exhibits or displays, provided to military or civil event sponsors. It includes the following categories: 1) Aircraft static display; and, 2) Aerial performance. Aerial Performance is broken down as follows: 1) Parachute Demonstration Team; 2) Flyover; 3) Aerial review; and, 4) Aircraft Capabilities Demonstration. A whole family of flying activities falls under Aircraft Capabilities Demonstration (See definition, above, and Table A-1, below).

**Civil Event**—Affairs or occurrences that are of, pertaining to, or befitting ordinary citizens and associated with ordinary community life, as distinguished from the military—in essence, they are non-military, civilian occasions and can be either domestic (i.e., U.S.) or foreign.

**Funeral Service, Memorial Service or Memorial Flyover**—An aerial performance consisting of a single-pass flyover at a funeral service, memorial service or memorial event, respectively, by a single aircraft or by as single formation (up to four aircraft). The formation may be flown as a missing-man formation, with the appropriate approval.

**High Altitude Low Opening (HALO) Airdrop Demonstration**—An aircraft capabilities demonstration involving the airdrop of a qualified parachute demonstration team from an altitude prescribed in the team's governing directives (usually above 5,000 AGL). The parachutists free fall to a predetermined altitude before deploying their parachutes to complete the descent.

**Military Event**—A U.S. military affair, celebration, occasion or ceremony held on a DoD installation and serving to celebrate military traditions (retreat ceremonies, military parades, changes of command, dedications of military schools or building, etc.), to formally recognize a military member or group (military funeral services, memorial services, memorial occasions, etc.) or to display Air Force resources or capabilities (base Open House event, CAPSTONE Aerospace Power Demonstration, etc.). Military events may or may not be open to the general public. Military events sponsored by other nations will be clearly referred to as “foreign military events.”

TABLE A-1. Classification of Aviation Support.

