

20 April 2004

To Whom It May Concern

ACC single-ship demonstration teams and Heritage Flights positively affect AF recruiting efforts, demonstrate modern weapon systems, portray America's airpower from past to present, promote community relations, and reinforce public confidence by demonstrating the professional competence of AF personnel. ACC requests your support. We are providing a great tool to help your units with our demonstration teams, the ACC Single-Ship Demonstration Team/Heritage Flight Support Manual. Your POC can find this manual at <http://www2.acc.af.mil/airdemo/support.html/>.

We hope you have a successful Open House season and appreciate your support of the ACC single-ship demonstration teams and Heritage Flights. Please contact HQ ACC/ DOOA, Maj Todd Daggett, DSN 574-8175 or e-mail acc.dooa@langley.af.mil, to answer any questions.

Sincerely

HAL M. HORNBURG
General, USAF
Commander

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CHAPTER 1 – GETTING STARTED

1. PURPOSE

a. Congratulations on receiving an Air Combat Command (ACC) Single-Ship Demonstration Team to support your air show. The purpose of this manual is to help ensure your event is a resounding success. We look forward to working with you in this endeavor.

2. OPEN HOUSE/AIR SHOW COMMITTEE MEMBERS

a. **Air Show Director** – The Air Show Director must read every section of this support manual and fully understand the contents and requirements. He/she will also sign the agreement form at Attachment 1 and send it to the appropriate team, within 30 days of your event. If you are missing one or two items from the agreement, please send it anyway. You can call the team later and pass on the additional information.

b. **Single-Ship Demonstration Team Project Officer** – Experience has shown that having one focal point for funneling information between the show site and the single-ship demonstration team reduces the chances of miscommunication. We recommend naming one individual as your Single-Ship Demonstration Team Project Officer, and allowing that person to be the sole source of contact with your Air Show Coordinator. That doesn't mean your designated representatives can't call the demonstration team, but before making any schedule changes, representatives should coordinate with the Single-Ship Demonstration Team Project Officer.

(1). **The Single-Ship Demonstration Team Project Officer must read this manual** and be acquainted with the respective areas of responsibility. He or she should be able to discuss all details of your air show and the team's operational requirements. Details will include, but are not limited to, your schedule of events, FAA waivers, airfield/show site diagrams, housing and transportation requirements, PR requests, maintenance equipment requirements, etc.

(2). The Single-Ship Demonstration Team Project Officer must be readily available for direct coordination at least **30 days prior** to the air show.

c. **Air Force Recruiter** – Recruiting quality candidates for military service is the heart of the ACC Single-Ship Demonstration Team mission. It is essential that local recruiters take an active role in coordinating activities to enhance recruiting efforts. Recruiters must work closely with the host-site Public

Affairs/Publicity Representative to gain maximum benefit from the team's visit. Please keep them in the loop during your planning. They are a valuable resource.

d. **Host-Site Public Affairs/Publicity Representatives** – An effective publicity campaign is crucial to a successful air show. The host-site Public Affairs/Publicity Representatives should write or distribute all pre-show publicity, arrange for media interviews, PR commitments, and live coverage of the air show. He or she is also responsible for coordinating with local USAF Recruiting Representatives, facilitating Air Force retention support, and coordinating all receptions, dinners, and public relations visits.

3. MAILING ADDRESS

a. When corresponding with the ACC Single-Ship Demonstration Teams, send all letters, e-mails, and packages to the appropriate single-ship demonstration team POC that's scheduled to support your air show. Due to the possibility of mail delays, send important information by priority mail, in sufficient time to reach the proper party before the suspense date. In lieu of priority mail, you may fax or e-mail the information. The correct mailing addresses, phone and fax numbers, and e-mail address for all teams are:

(1). A-10 East Single-Ship Demonstration Team

Mailing Address:

23 FG/MADT
3560 Surveyor St., Ste A
Pope AFB, NC 28308-2088

Phone and Fax Numbers:

Phone: (910) 394-5063, 5064 or DSN 424-5063, 5064
Fax: (910) 394-5061 or DSN 424-5061

Email:

A-10DemoTeam@pope.af.mil

(2). A-10 West Single-Ship Demonstration Team

Mailing Address:

355 OG/DEMO
3895 S 6th St., Ste 310
Davis-Monthan AFB, AZ 85707

Phone and Fax Numbers:

Phone: (520) 228-4905 or DSN 228-4905

Fax: (520) 228-3149 or DSN 228-3149

Email:

demoteam@og355.dm.af.mil

(3). F-15 East Single-Ship Demonstration Team

Mailing Address:

1 OG/DEMO
159 Sweeney Blvd, Ste 105
Langley AFB, VA 23665

Phone and Fax Numbers:

Phone: (757) 764-5028 or DSN 574-5028

Fax: (757) 764-7459 or DSN 574-7459

(4). F-15 West Single-Ship Demonstration Team

Mailing Address:

33 FW/F-15 Demonstration Team
1107 Nomad Way, Ste 101
Eglin AFB, FL 32542-6028

Phone and Fax Numbers:

Phone: (850) 883-4070 or DSN 875-4070

Fax: (850) 883-4396 or DSN 875-4396

Email:

33FWDT@Eglin.af.mil

(5). F-16 East Single-Ship Demonstration Team

Mailing Address:

77 FS/ Viper East Demo
750 Fighting Falcon St.
Shaw AFB, SC 29152

Phone and Fax Numbers:

Phone: (803) 895-3695/2264 or DSN 965-3695/2264
Fax: (803) 895-3691 or DSN 965-3691

Email:

f16vipereast@shaw.af.mil

(6). F-16 West Single-Ship Demonstration Team

Mailing Address:

4 FS Demo Team/MADT
7496 Canberra Drive/Bldg 45W
Hill AFB, UT 84056

Phone and Fax Numbers:

Phone: (801) 586-7515/(801) 777-2011 or DSN 586-7515/777-2011
Fax: (801) 777-4369/2129 or DSN 777-4369/2129

Email:

hill.viperwest@hill.af.mil

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CHAPTER 2 – THINGS WE NEED TO KNOW

1. AIR SHOW INFORMATION SHEET:

a. The Air Show Information Sheet (Attachment 2) contains essential information needed by the team. Please send it as soon as possible, but not later than **30 days before** your air show.

b. When filling out the information sheet, be sure to include the **full name and rank** (if applicable) of all individuals, and commercial and DSN phone numbers. If you are missing one or two items from the information sheet, please send it anyway. You can call the team later and pass on the remaining information.

c. Please verify all telephone numbers and notify us immediately of changes.

2. SCHEDULE OF EVENTS: As soon as possible, please provide the demonstration team a detailed schedule of your air show. It should list all scheduled events and the times they will perform, from gates open to gates closed.

CHAPTER 3 – MAINTENANCE PERSONNEL ARRIVAL/MEETING

1. MAINTENANCE PERSONNEL ARRIVAL:

a. The single-ship demonstration team maintenance support personnel will usually arrive at your show site one day before the pilots. Only in extenuating circumstances will other arrangements be made.

b. Upon arrival, the maintenance personnel will need to have transportation arranged to pick them up from the airport.

2. **MEETING:** The senior maintenance representative will meet with the air show director/coordinator to discuss the team's schedule and review requirements of this manual. Please ensure a representative responsible for each area covered in the support manual is present, or someone who can answer all questions is present. Agenda items will include:

- a. Air show schedule
- b. Public affairs commitments
- c. Security for aircraft
- d. Maintenance equipment
- e. Recruiting support
- f. Transportation
- g. Flight line access
- h. Fire/disaster response
- i. Lodging
- j. Heritage Flight warbird parking and support (as required)

3. **GROUND SURVEY OF AIR SHOW SITE:** After the meeting, air show representatives will provide maintenance personnel a complete tour of the air show site and flight line.

4. **INVENTORY OF MAINTENANCE SUPPORT EQUIPMENT:** Maintenance personnel will inventory maintenance support equipment after the ground survey of the air show site.

CHAPTER 4 – HOUSING

1. GENERAL: The air show will provide lodging for the single-ship demonstration team at no expense to the team. Coordinate with team before making billeting arrangements. Please use the following guidelines.

a. Provide seven **non-smoking** rooms for the team. The team may require additional rooms due to other circumstances/requirements for your show. Room reservations are the host billeting representative's responsibility. **The single-ship demonstration team cannot sign any billeting contracts.**

b. Ensure hotel is clean and in a quiet location, i.e., not near railroad tracks, heavily traveled thoroughfares, or heavy construction.

c. All hotel rooms must have air conditioning, telephone, and data connections (normally phone jacks) for FAX and computer equipment, to enable essential information to be transmitted to and from deployed personnel.

d. Crew integrity is required. The team will not split into enlisted/officer quarters at military locations.

e. Billet teams with other air show participants to the maximum extent practical.

f. Reserve rooms under the ACC Single-Ship Demonstration Team name (e.g., F-16 East Coast Demonstration Team). Team members may change at the last minute and confusion may arise if rooms are reserved under individual names.

g. Billet a convenient distance from the show site, or from aircraft staging location in the case of a deployed show(30-minute maximum driving time preferred).

h. Should the team's aircraft experience malfunctions, they may be forced to stay longer than planned. If that is the case, the team will require the rooms for as long as required at the air show's expense for only those individuals required to repair the jet. Rooms may also be required for specialized maintenance personnel that may have to report to fix the aircraft. In any event, the team will make every effort to depart as soon as possible to minimize the expense to the show.

2. OTHER REQUIREMENTS:

a. Credit Cards: The hotel the team stays at must accept VISA credit cards; Air Force regulations mandate their use for official business.

b. Telephones:

(1). Your billeting representative must coordinate with the hotel concerning local phone and 1-800 number charges. **If the local phone and 1-800 number charges cannot be waived, the show sponsor will be required to cover the cost.**

(2) Please provide a 1-800 telephone number for the hotel front desk (not the sales office).

c. Parking: If the hotel charges for parking, arrangements must be made to have the charges waived. If the hotel will not waive the charges, the show sponsor will be required to cover the cost.

d. Other:

(1) Dining facilities, complimentary fitness facilities, and laundry/dry cleaners should be located nearby. **NOTE:** For military air shows: If the fitness center is closed during the air show, then an off-base fitness facility is required.

(2) Team members should be able to cash personal checks at the hotel.

CHAPTER 5 – TRANSPORTATION

1. GENERAL:

- a. The host transportation representative must ensure vehicle requirements are met.
- b. Funding for vehicles is the air show's responsibility.
- c. Provide the team three vehicles (one mini-van to carry maintenance tool boxes and equipment, and two mid-size cars). Team will ensure all team members are qualified to operate rental or courtesy vehicles.
- d. Insurance coverage for cars rented for official government use is obtained in several ways. First, DoD has an arrangement with several car rental companies that provide insurance coverage. Vehicles rented through the government-contracted travel agent will have this coverage. For occasions when arrangements cannot be made thorough a rental car company under this agreement, renting a vehicle with the government travel card can provide insurance company. These provisions would not apply to vehicles rented by civilian air shows. They would need to arrange for insurance that would cover drivers other than the person who rented the vehicle.
(use Attachment 3).
- e. ACC Single-Ship Demonstration Team personnel do not provide rental contract information to show sites. It is the air show's responsibility to provide vehicles for the team.

2. The host transportation representative must ensure that:

- a. Host personnel are briefed to release all required vehicles to the teams.
- b. All vehicles assigned for team use are available for the duration of their stay, including a continued stay due to aircraft maintenance problems, at the air show's expense.
- c. Please do not issue GOVs to teams unless absolutely necessary.
- d. All vehicles are in place, fully serviced and fueled.
- e. All vehicles are in good mechanical condition and dependable.

3. COURTESY CARS: If courtesy cars are used, it is essential the dealer/provider understand the limitations on advertisements. Dealers/providers

may not in any way, either before, during or after the team's visit, advertise that the courtesy cars were provided for ACC Single-Ship Demonstration Team use.

4. MAPS: Since most of the team members are not familiar with your city or base, please provide all vehicles with a map of the base and/or local community.

CHAPTER 6 – OPERATIONS

1. AIRFIELD DIAGRAM:

a. **Airfield Diagram** – Air Show organizers must provide the single-ship demonstration team with a diagram of their airfield/show site. The team should receive the airfield diagram **30 days before** the date of the air show.

b. For deployed shows, the team must have a diagram of the show site as well as the airfield from which the aircraft will deploy. As a minimum, your airfield diagram should depict:

(1). Show center location and coordinates.

(2). The complete aerobatic box.

(3). The entire show line and crowd line (with distance between them), and any secondary crowd lines.

(4). Parking locations and coordinates for arrival and the show.

(5). Magnetic (MAG) bearing of the runway, depiction of Magnetic North, and the scale of the diagram.

(6). Access routes to show center and aircraft parking.

2. SHOW LINE:

a. The show line should be an absolute straight path over the ground, located 1,500 feet in front of the crowd. If the crowd line is other than a straight line, the show line must be 1,500 feet from the closest spectator area. The demonstration pilot will use this line as a primary reference during the demonstration.

NOTE: Show line for non-aerobatic maneuvers (high speed pass, knife edge pass, etc) is a minimum of 500 feet from the closest spectator area.

b. All markers used to define the show line must be large, highly visible, easily identifiable, and with a stark color contrast to the surrounding terrain. (For military show sites, if the markers are to be placed within 1000' of an active runway or taxiway, check with airfield management to confirm whether the markers must be frangible to comply with airfield obstruction clearance policies.) Markers must be in place prior to the first practice demonstration.

c. Overwater Show Line – For demonstrations flown over water, an artificial show line must be defined by markers as described above. In addition to being large and highly visible, the markers must also be anchored to ensure they remain in the same position throughout the air show. You will need the assistance of the Coast Guard or Lake Patrol to ensure boats do not enter the aerobatic box during the single-ship demonstration.

3. SHOW CENTER:

a. Show center is the location on which the demonstration pilot uses to center each maneuver during the demonstration. The team's primary desire is to position show center directly opposite the VIP seating area and centered along the length of the crowd line. If possible, locate show center in a highly visible area such as a taxiway or intersection of a runway. Show center should also be aligned, if possible, with a building, road, or other identifiable object, to allow the pilot to accurately annotate any aerial photographs.

b. Show center must be marked by a large, highly visible, easily identifiable object with a stark color contrast to the surrounding terrain. It must also be easily distinguishable from all other markers on the show line. If the show line is on the runway, the marker should be placed at least 100 feet off the runway so as not to interfere with takeoff or landing.

4. CROWD LINE:

a. The crowd line is a physical barrier preventing spectators from moving forward during an air show. **Snow or FOD fencing for the crowd line barrier is necessary.** This helps to prevent FOD from blowing onto the taxiways and runways.

b. The FAA requires that the aerobatic box be void of all people not specifically required for preparation of the demonstration.

5. AIRCRAFT PARKING (SHOW):

a. Please coordinate parking with the senior maintenance representative when he/she arrives to discuss jet blast safety and parking. The teams like to park as close as safety permits to the crowd line so the crowd can see the pilot and maintenance team at work.

b. The team requires that their aircraft be parked on a taxiway or ramp that is at least 75 feet wide. You should select an area that will give the pilot and maintenance personnel unrestricted access and movement. This will preclude them from frequently crossing active runways. Ensure the parking area has proper weight-bearing capacity. If you are in doubt, contact the single-ship demonstration team.

NOTE: The spare demonstration aircraft is **not a static display aircraft**, and general access will **not be permitted**.

6. HANGARING OF AIRCRAFT: Provide hangar space for aircraft in the event of severe weather (hail, etc.), maintenance of aircraft, or security concerns.

7. WEIGHT-BEARING WAIVER: A weight-bearing waiver is required when your airfield weight bearing for a single wheel landing gear is less than 37,000 pounds. This is the minimum weight to support our aircraft.

8. RUNWAY/TAXIWAY SWEEPERS: The parking area and all taxiways and runways the team uses must be absolutely free of foreign objects, which could damage our aircraft engines. **It is mandatory that all surfaces (runways, taxiways, and ramps) be thoroughly swept before the team's arrival.**

a. If your airport maintenance facilities do not possess a vacuum sweeper, it will be necessary to make arrangements to obtain one for F-15 and F-16 aircraft. We cannot emphasize the importance of this requirement enough.

b. If a brush-style sweeper is used, ensure the **bristles are not steel**, and that a **thorough foreign object damage (FOD) check of the runway is accomplished after its use.**

c. Please **restrict helicopters and Harriers** from hovering over taxiways, ramps, and runways intended for the team's use, unless you have a good plan for cleaning up the area afterward. **It is absolutely essential that hovering not be performed over or near our parked aircraft.**

d. If you plan to use **pyrotechnics** anytime during the air show, ensure they are exploded far enough away to prevent blowing foreign objects on the team's aircraft or the runways and taxiways intended for the team's use. In addition, for safety considerations, **we cannot permit pyrotechnic performances closer than 500 feet** to the team's parked aircraft.

9. ACC SINGLE-SHIP DEMONSTRATION AIRCRAFT AIRSPACE USE: Single-ship demonstration team aerobatic maneuvers need the following airspace.

a. F-15 and F-16 aircraft: Five mile radius from show center, 15,000 feet AGL, and an aerobatic box of 3,000 feet deep by 6,000 feet long.

b. A-10. Five-mile radius from show center, 7,000 feet AGL, and an aerobatic box of 3,000 feet deep by 4,000 feet long.

10. ACC SINGLE-SHIP DEMONSTRATION AIR SHOW:

a. **Time Period** : The single-ship demonstration portion of your air show, ground and flying, lasts approximately 20 minutes. It is imperative that no other events be scheduled during this time, except Heritage Flight activity.

(1). It is imperative that the ACC Single-Ship Demonstration Team Narrator has full control of the microphone and public address system five minutes prior to the scheduled takeoff.

(2). The team's takeoff must be no earlier than 1/2 hour after sunrise and no later than one hour prior to official sunset. The demonstration pilot's takeoff is approximately five minutes after the narrator takes control of the microphone and your public address system.

(3). The actual flying portion is approximately 15 minutes long.

(4). The practice show will last the same amount of time as the actual show and will require the same FAA restricted airspace.

b. **Communication:**

(1). In the interest of providing each demonstration pilot the safest environment to operate in, the demonstration pilot and safety observer will operate on a discrete frequency for all demonstrations and practices using their own radios. This is to minimize the amount of third-party radio chatter that has both distracted our demonstration pilots and stepped on required radio calls from the pilot and safety observer during the demonstration. The safety observer will be the only person in direct contact with the demonstration pilot. As such, during the demonstration, all other parties must coordinate through the safety observer for any information or coordination needed regarding the demonstration pilot or the demonstration. **If necessary, please provide the safety observer with a radio for contact with the other agencies (Air Boss, ATC, etc.).**

(2). Please provide a podium and public address system with CD or cassette capability. The narrator needs this equipment to narrate the performance and play accompanying music.

(3). All demonstration aircraft are equipped with UHF radios. A-10 and F-16 aircraft are also equipped with VHF radios.

c. **Weather Limitations** : One of the following shows will be flown, depending on the prevailing weather conditions:

(1) High Show – 7,000 foot ceiling, 3 nautical mile visibility.

(2) Low Show – 2,500 foot ceiling, 3 nautical mile visibility.

11. GENERAL INFORMATION:

- a. The team will not exceed the speed of sound during their demonstration.
- b. With the exception of the U.S. Army Golden Knights, the U.S. Navy Leap Frogs, and the Air Force Academy Jump Team, all landing zones for parachutist demonstrations must be at least 300 feet from the single-ship demonstration aircraft.
- c. If radio-controlled model aircraft will operate during your show, they must not come within 300 feet of the team's aircraft, laterally or vertically.
- d. If you plan to use a 500-foot show line for civilian performers, the single-ship demonstration team aircraft must be parked at least 300 feet from the 500-foot show line to avoid over flight of their aircraft.
- e. If the Blue Angels or Thunderbirds are performing at your air show, the single-ship demonstration teams cannot fly their demonstration within 15 minutes of their scheduled pre-show start time.
- f. Prohibit other aircraft from running engines during show narration, except for warbirds preparing for Heritage Flight.
- g. Please do not allow concessions at your air show to sell helium-filled balloons; they are a threat to safe flying operations.
- h. If hot-air balloons are a part of your air show, please ensure they are not inflated during the team's arrival, practice, or demonstration.
- i. Please ensure demonstration team members have access to VIP areas to sign autographs and meet VIPs. To accommodate friends and family members, we request 15 reserved seats for single-ship demonstration team guests, opposite show center, if possible. If it is easier for your show site to locate the single-ship demonstration team VIP seating within your main VIP seating section, please do so. This will alleviate you from having to construct a separate area just for single-ship demonstration team, and will allow our single-ship demonstration team personnel and their families to enjoy your hospitality.
- j. Please ensure demonstration team has easy access to meals from aircraft parking ramp area during the air show.

CHAPTER 7 – FAA WAIVER/NOTAMS

1. FAA WAIVER:

a. A waiver from the Federal Aviation Administration is required for the ACC Single-Ship Demonstration Team's aerobatic maneuvers during both the practice and actual air show demonstrations. You may, however, submit all waiver requests on the same FAA Form 7711-2, Application for Certificate of Waiver or Authorization. You should initiate the waiver at least **90 days** before your scheduled show date.

b. Your request for waiver **must not** be issued to the "ACC Single-Ship Demonstration Team" but must cite a representative of your organization in the "issued to" block of the waiver.

c. The single-ship demonstration team pilot will sign the waiver upon arrival at your air show.

2. DEMONSTRATION AND PRACTICE WAIVERS:

a. In order for the team to perform at your air show, you must request a waiver to the following FAA regulations.

(1). 91.117(a) – Aircraft speed in excess of 250 knots below 10,000 feet

(2). 91.117(b) – Aircraft speeds in an airport traffic area

(3). 91.119(b) – Minimum safe altitudes over congested areas (Military teams with approved maneuvers packages only)

(4). 91.119(c) – Minimum safe altitudes over other than congested areas, except not closer than 500 feet to persons

(5). 91.127 – Operating on or in the vicinity of an airport

(6). 91-129 – Operations at airports with operating control towers (when appropriate)

(7). 91.303 – Definition of aerobatic flight

(8). 91.303(c) – Aerobatic flight within a federal airway

(9). 91.303(e) – Aerobatic flight below an altitude of 1,500 feet above the surface

NOTE: Positioning turns for high performance aircraft operated by North American Demonstration Teams, regardless of the angle of bank or pitch attitude, but only as necessary to complete the turn, are not considered to be air show aerobatic maneuvers.

b. As a minimum, waiver time for the practice and demonstration must begin **5 minutes before scheduled takeoff and extend for 30 minutes**. Although the actual demonstration only lasts approximately 15 minutes, the additional time is requested to allow flexibility for possible maintenance problems or weather conditions. Once again, these times are minimum. Additional time can be requested. Please ensure the required time blocks are accurately reflected on the waiver request. You could encounter unnecessary delays trying to obtain a new waiver.

3. NOTICE TO AIRMEN (NOTAMs):

a. Your airfield must be closed for the total time issued on the waiver for both the practice and actual aerial demonstration. This time includes closure to airlines at commercial or joint-use airfields. If you anticipate any conflicts, contact the single-ship demonstration team and HQ ACC/DOOA (Aerial Events Schedulers.)

b. Ensure a NOTAM is issued at least **48 hours in advance** for both practice and actual demonstration waivers. It is of the utmost importance to not only provide a NOTAM closing the airfield, but to include the closure requirements of 5 NM from show center and 7,000 or 15,000 feet AGL (as applicable for A-10 or F-15/16 aircraft respectively) for practice or demonstration.

Sample NOTAM (for practice or demonstrations)

Airspace surface to _____ MSL closed within 5 NM of _____

Airfield/TACAN from _____ Z to _____ Z on _____ (date).

4. TEMPORARY FLIGHT RESTRICTION (TFR): Due to numerous incursions over the last few years, TFR areas are now approved for ACC Single-Ship Demonstration Team aerial demonstrations. Please establish your 5 NM airspace ring as a TFR. This can be done through your local Flight Standards District Office (FSDO). Refer any questions to the Aviation Safety Inspector (National Air Show Coordinator) (Operations), at (202) 267-3437.

CHAPTER 8 – AIR TRAFFIC CONTROL

1. **HAZARDS:** Please provide the single-ship demonstration pilot a sectional chart and advise on any hazards in the local area that are not readily known to transient aircraft. This information must be provided to the pilots prior to their arrival at your show site.

2. RUNWAY BARRIERS:

a. For any F-15 or F-16 Demonstration team, show sites without arresting gear and with runways less than 8,000 feet must provide temporary arresting gear if:

(1). **F-15.** An airfield with suitable arresting gear is not within 80 NM of the staged location.

(2). **F-16.** An airfield with suitable arresting gear or runway length greater than 10,000 feet is not within 80 NM of the staged location.

b. Show sites should coordinate with local FAA and airport management, as certain types of temporary arrestment equipment may affect civil commercial operations.

c. Arresting gear may be activated from the tower or manually positioned. If manually positioned, it must be in place before all scheduled practices and demonstrations. The gear may need to be certified by the demonstration team pilot upon arrival.

3. **LOCAL AIRPORTS:** Please make sure you contact all airports within a 5 NM radius of your airfield to ensure they are shut down during the time periods specified in the FAA waiver.

CHAPTER 9 – MAINTENANCE

1. GENERAL: The air show is responsible for obtaining and arranging for the required support listed in this manual, and for covering the costs involved in obtaining and transporting the equipment and materials. Please provide the single-ship demonstration team with a filled in copy of Attachment 1 at least **30 days** prior to your show date.

2. FOREIGN OBJECT DAMAGE (FOD) CONTROL:

a. FOD refers to damage to aircraft components, i.e., flight controls, tires, or engines, by foreign objects such as loose gravel, nuts, bolts, etc.

b. All aircraft are susceptible to FOD, but the F-16s are highly susceptible. Pieces of ice as small as 1/4", or material as soft as cloth, can damage the engines. Because of that, **please make sure all surface areas where the teams operate are swept and cleaned prior to their arrival**, and that **these areas remain clean during their stay**. Do **not use** sweepers that have **steel bristles**.

c. **Snow fencing** will aid in preventing FOD from blowing onto the runways/taxiways when it is erected so that it touches the ground. Orange, nylon FOD fencing is an acceptable alternative to snow fencing along the crowd line.

3. AIRCRAFT ENGINE OIL SAMPLES: The single-ship demonstration team aircraft must have engine oil samples taken each day. Failure to provide this service will make the aircraft unable to fly in your air show. **It is the air show's responsibility to transport the samples to the testing location.**

a. A-10: Oil samples must be taken after the first flight of the day and must be analyzed and the results returned before the aircraft can fly again the next day.

b. F-15/F-16: Oil samples must be taken after the first flight of the day and analyzed and returned prior to the third flight of the day or prior to the next days first flight, whichever occurs first, before the aircraft can fly again

4. FUEL REQUIREMENTS: Aircraft require either JP-4, JP-5, JP-8, or Jet-A (Jet A+ for F-15). The fuel must be fuel-lab certified and provided by a certified vendor.

a. Military sites – Fuel will be purchased using the DOD fuel card for each respective aircraft.

b. Civilian sites – AF regulations only allow the single-ship demonstration teams to pay the current government rate for fuel. It is essential that you communicate this requirement to your fuel provider. Any additional cost for fuel above the government rate will be the responsibility of the air show.

c. Fuel quantities – The single-ship demonstration teams require the following amounts of fuel (contingent upon their schedule at your location):

(1). A-10: Filled to 3,500 pounds of fuel per demonstration.

(2). F-15: Filled to 13,500 pounds of fuel per demonstration.

(3). F-16: Filled to 6,000 pounds of fuel per demonstration.

(4). Demonstration teams will let you know how much fuel they need for departing your air show.

5. MAINTENANCE EQUIPMENT REQUIREMENTS:

a. The following maintenance equipment is **required for all** single-ship demonstration teams. Ensure equipment is compatible with the aircraft type (A-10, F-15, or F-16) participating in your air show.

(1). High pressure liquid oxygen cart (MILITARY – not medical)

(2). Hydraulic Cart (MIL-H-83282)

(3). One 50 LB HALON or CO2 Fire Extinguisher

(4). Universal Tow Bar

(5). Tow vehicle

(6). Nitrogen cart

b. A six foot freestanding ladder is **required for A-10** aircraft.

c. The following additional maintenance equipment is **required for F-15 and F-16 aircraft**.

(1). A Dash 60 Power Unit/Cart (115+/-15 vac, 400+/-30 Hz A/M 32A-60A).

(2). Oil Cart (MIL-L-7808)

CHAPTER 10 – SECURITY

1. CROWD SECURITY:

a. One of the most difficult areas of your air show is crowd security. Well-organized crowd control is essential to ensure the safety of spectators and to satisfy FAA requirements.

b. For effective crowd security, the security/law enforcement officer must:

(1). Ensure sufficient law enforcement/security personnel are posted to handle the anticipated crowd and set up a physical barrier, preferably snow fencing or FOD fencing, which acts as a crowd line. All spectators must remain behind this crowd line. Be prepared for spectators, especially children, to start moving forward unless strict control is exercised.

(2). Ensure members of the security/law enforcement team are on hand early, and positioned at specific intervals along the crowd line, to ensure the integrity of the intended crowd line is maintained. F-15 and F-16 engines are extremely noisy, and could cause ear damage if someone without ear protection breaks past the crowd line and moves toward the aircraft.

(3). Brief the air show security team on all procedures for the air show.

2. AIRCRAFT SECURITY:

a. For military installations: Security for ACC Single-Ship demonstration aircraft at military installations will be in accordance with AFI 31-101, *The AF Installation Security Program*, as supplemented and AFJI 31-102, *Physical Security Program*, (formerly AFR 207-4)".

b. For Civilian locations: The air show must:

1). Arrange for around-the-clock protection of ACC Single-Ship Demonstration aircraft from arrival until departure through their local civilian law enforcement agency. No one is authorized to be on or around our aircraft without a single-ship demonstration team member escort.

2). Throughout all periods at civilian airports when single-ship demonstration team personnel are not present, the following requirements must be met.

a). Aircraft will be surrounded by a rope or raised barrier.

b). A security patrol must provide constant observation of the aircraft. Both of the following requirements must be met.

(1). An armed two-person mobile security patrol in the aircraft parking area able to respond to aircraft within 3 minutes. If possible, arm with M-16s or equivalent.

(2). An armed two-person mobile security patrol in or outside the aircraft parking area able to respond to aircraft within 5 minutes. If possible, arm with M-16s or equivalent.

c). Provide additional security requirements, such as hangaring the aircraft, if requested by the team due to current world situation and security force levels.

d). The security forces/law enforcement representative must coordinate communications capability and procedures for requesting emergency assistance from local military or civilian police as appropriate for the air show location.

e). During Force Protection Condition "CHARLIE" and higher, or when security cannot be arranged at the air show location, cancel the mission or route the aircraft to a safer location to remain overnight.

CHAPTER 11 – PUBLICITY

1. PUBLICITY IDEAS:

a. An effective publicity campaign is paramount to a successful air show. The following ideas are some of the various ways to enhance your publicity campaign.

(1). Since recruiting is at the heart of the ACC Single-Ship Demonstration Team mission, contact your nearest USAF Recruiter as soon as possible. You will find recruiters can be very helpful in publicizing your air show, and may give you other insights into successful “blue-suit” promotion techniques.

(2). Invite as many media representatives as possible to be present for the practice demonstration. This is a good time for planeside team interviews. Do **not** advertise the practice as an official demonstration.

(3). Practices are excellent for hosting groups, which would otherwise have difficulty seeing the actual demonstrations (physically challenged, elderly, etc.). In particular, the single-ship demonstration teams would like to extend an invitation to Make-A-Wish chapters and similar groups to attend the Friday practice. With proper arrangements, Make-A-Wish/special needs guests will have a special opportunity to meet the pilots and other team members, take photographs and receive autographs. Notify the team if you plan for any special groups to attend the practice. The teams will allot specific time in their itinerary to meet with these individuals.

(4). Encourage radio and TV coverage of the air show.

(5). Encourage telephone interviews with our team members before your air show.

CHAPTER 12 – PUBLIC APPEARANCES

1. COORDINATION:

a. All public appearances must be coordinated with the single-ship demonstration teams at least **15 days** before their scheduled appearance. Please realize, for planning purposes, it is best to know that everything the single-ship demonstration teams do outside of the aerial demonstration is a public appearance. That includes talk show interviews, hospital visits, receptions, and air show parties.

b. **Never** commit the team to an activity or event unless it has been approved in advance.

c. Air Force Recruiting Representatives should be allowed to participate in the planning and participation of all public appearances.

2. AVAILABILITY:

a. Due to crew rest and demonstration preparation, the single-ship demonstration team may not be available for public appearances on the day of your air show, except for post-show receptions.

b. All public relations commitments must be within a maximum of **30 minutes** driving time from the hotel.

3. REQUIRED INFORMATION:

a. We request the following information for each public relations event.

(1). Name of Event – Visits to schools (medical schools, universities, high schools), hospitals, golf matches, buffets, dinners, interviews, etc. The teams like to make as much contact with children as possible. Please explore the schools, summer camps, and youth organizations first.

(2). Location of Event – The team needs a complete street address, to include zip code.

(3). Date/Time of Event.

(4). Host/Hostess/Sponsor – Please identify the individual or organization sponsoring the event and include their work, home and cell phone numbers.

(5). Description – A brief description of what the event sponsor/host would like the team to do while at the event. An estimate of how many will be present at the event is also required.

(6). VIPs/Dignitaries Attending – The team needs to know who is attending any event, such as the mayor, civic dignitaries, military officials, etc.

(7). Driving Time – Because of the team's tight schedule, they need to know how long it will realistically take to drive from the hotel to the public relations events. Please err on the liberal side when estimating driving times, allowing for traffic, stop lights, parking, etc.

CHAPTER 13 – AIR FORCE RECRUITING

1. GENERAL:

a. Recruiting is at the heart of the ACC Single-Ship Demonstration Team mission. Therefore, it is essential that air show project officers work closely with the local recruiter squadron commanders, flight chiefs, and community recruiters to get the most out of the team's visit.

b. Recruiting Service should assign a project officer/NCO for each air show. Recruiting Service will contact your air show project manager and public affairs representative to coordinate their participation.

2. SUPPORT: We request you give full support to DoD recruiting efforts. Such support should include, but not necessarily be limited to:

a. Coordinating with local U.S. Air Force Recruiting personnel.

b. Providing prime space for the recruiting display booth, Raptor SUV, or Cross into the Blue Tour.

c. Setting up/coordinating public appearances with support from Recruiting Service personnel.

d. Inviting Recruiting Service personnel to all official functions in which the single-ship demonstration team will participate.

e. Arranging for enlistments/re-enlistments.

CHAPTER 14 – HERITAGE FLIGHT

1. GENERAL:

a. In 1997, the Air Force celebrated its' 50th Anniversary as a separate branch of the service. In support of the celebration, ACC started flying dissimilar formation flights consisting of our Single-Ship Demonstration Teams and Civilian Warbird Pilots flying P-40's, P-51's, P-47's, P-38's, and F-86's.

b. These flights reflect our pride in airpower from past to present. The response was an overwhelming favorite during air shows, so ACC has designed and approved a formal program to continue these flights throughout future air show seasons --The ACC Heritage Flight Program. Heritage Flights may only be conducted by ACC Single-Ship Demonstration Pilots and the approved list of civilian Heritage Flight Pilots listed below. This program and these pilots are also endorsed by the FAA.

c. The Heritage Flight consists of 3 formation passes that will add **approximately 8** additional minutes to the ACC Single-Ship Demonstration. The Heritage Flight ranges from two-ship to four-ship formations, depending on how many ACC Single-Ship Demonstration Teams and civilian Heritage Flight Pilots are booked at your show. Special narration will be handled by the ACC Demonstration Team Narrator. The civilian Heritage Flight pilots and their aircraft operate as part of the single-ship demonstration teams. Therefore, special consideration should be paid to logistical requests that might be needed to safely launch, fly, and recover the Heritage Flight. Final word on all Heritage Flight operations at the air show site will be made by the ACC Demonstration Pilot, as per ACC's Heritage Flight rules and regulations.

d. ACC contracts for the Heritage Flight. ACC will attempt to schedule a Heritage Flight at your air show after scheduling a single-ship demonstration. If you want the civilian Heritage Flight pilots to perform anything more than the Heritage Flight, such as their own demonstration, then you will work directly with them for the additional support and will require separate funding. You may also contact the civilian Heritage Flight pilots directly from their information listed below.

e. The civilian Heritage Flight pilots will be afforded the same support as ACC's Single-Ship Demonstration teams. Please contact the Heritage Flight pilot directly to determine specific requirements regarding:

- 1). Lodging.
- 2). Vehicles.

3). Air show fuel and top off before they depart the show.

4). Heritage Flight aircraft must be parked near the single-ship demonstration aircraft.

NOTE: If the single-ship demonstration jets are required to stage and the warbirds are not, park the warbirds at the show site.

5). Their names on an access list, or provide them a badge, to make it easy to get to and from their aircraft and anywhere on the flight line.

6). Hangar space in the event of severe weather (hail, etc.)

f. Some of the civilian Heritage Flight pilots require supplemental support for their aircraft.

1). Ed Shipley (F-86)

a). Fuel – Jet fuel no prist. (671 gallons to top off from empty. Normally uses 300 gallons per show flight)

b). Hydraulic Fluid – 5606 G

c). Engine Oil – Royco 1010

d). Gaseous O2.

e). 24 Volt DC, three prong power cart for start. Min amps is 1500.

f). Over night hangar storage space

2). Dale Snodgrass (F-86)

a). Fuel - 1000 gallons JP5/8 or Jet A.

b). Fuel - 200 gallons 100 LL.

c). 28 Volt DC, 1200 amp electrical power cart.

3). Vlado Lenocho and Reg Urschler (P-51)

a). Fuel - 295 gallons 100 LL.

b). Engine Oil - 1-2 gallons Aeroshell 120W.

2. CONTACTING CIVILIAN HERITAGE FLIGHT PILOTS: Following is a list of our ACC approved civilian Heritage Flight pilots authorized to fly dissimilar formations with the ACC Single-Ship Demonstration pilots.

a. Maj Gen Bill Anders, USAF (ret).

Formatted: Danish

Phone (360) 376-7654.
E-mail bill@heritageflight.org

b. Col Frank Borman, USAF (ret).

Formatted: Danish

Phone (505) 524-4050.
E-mail borman@aol.com

c. Mr. James Beasley, Jr.

Phone (215) 931-2676.
E-mail jbip51@comcast.net

d. Mr. Ralph Royce, for Mr. Thomas Gregory

Phone (409) 740-7722.
E-mail airboss@lsfm.org

e. Mr. Chuck Hall.

Phone (760) 789-8178.
E-mail chuckhallp51@earthlink.com

f. Mr. Steven Hinton.

Phone (909) 597-4654.
E-mail airmuzum@aol.com

g. Mr. Lee Lauderback.

Phone (407) 846-4400.
E-mail lee@stallion51.com

h. Mr. Bradley Hood.

Phone (812) 246-9584.
E-mail vintageflights@aol.com

i. Mr. Vlado Lenoč.

Phone (708) 354-4200.
E-mail mleloch@aol.com

j. Mr. Ed Shipley.

Phone (610) 353-1733.
E-mail heritageflight@earthlink.net

k. Capt Dale Snodgrass, USN (ret).

Phone (904) 471-6333.
E-mail captsnort@worldnet.att.net

l. BGen Reg Urschler, USAF (ret).

Phone (402) 733-3531.
E-mail thegunfighter@cox.net

Formatted: Danish

ATTACHMENT 1

AIR SHOW DIRECTOR PLANNING AND RESPONSE SHEET
DUE 30 DAYS PRIOR TO AIR SHOW

FROM: (Air Show Director)

TO: (Appropriate ACC Single-Ship Demonstration Team – Chapter 2)

SUBJECT: Air Show Support for (Type) ACC Single-Ship Demonstration Team

I have reviewed the support manual and checklist below and completed all appropriate items for the (Type) ACC Single-Ship Demonstration Team

Chapter 2 – Things We Need To Know

- Air Show Information Sheet
- Schedule of Events

Chapter 3 – Maintenance Personnel Arrival/Meeting

- Meeting – Time _____, Place _____

Chapter 4 – Housing

- Hotel _____, Phone Number _____
- No more than 30-minute driving time from show site
- Accepts VISA cards
- Local phone and 1-800 number charges waived or costs defrayed
- Parking charges waived or costs defrayed
- Dining and complimentary fitness facilities, and laundry/dry cleaners nearby
- Team members can cash personal checks
- Clean and quiet
- Non-smoking rooms

Chapter 5 – Transportation

- Three fully fueled and serviced vehicles (One minivan and two mid-size cars)
- Release of liability for courtesy/non-rental vehicles
- Authorized unrestricted flight line, parking ramp, and on/off base use

Chapter 6 – Operations

- Airfield diagram

- Show line
- Show center
- Crowd line
- Aircraft parking
- Weight-bearing waiver (as applicable)
- Runway/taxiway sweepers
- Demonstration aircraft airspace use
- Communications equipment
- Demonstration not scheduled to within 15 minutes of Blue Angels or Thunderbirds pre-show start time (as applicable)
- Balloons
- VIP Tickets

Chapter 7 – FAA Waiver/NOTAMS

- FAR 91.117 (a) – Airspeed in excess of 250 knots below 10,000 feet
- FAR 91.117 (b) – Aircraft speeds in an airport traffic area
- FAR 91.119 (b) – Minimum safe altitudes over congested areas
- FAR 91.119 (c) – Minimum safe altitudes over other than congested areas, except not closer than 500 feet to persons.
- FAR 91.127 – Operating on or in the vicinity of an airport
- FAR 91.129 – Operations at airports with operating control towers (when appropriate)
- FAR 91.303 (c) – Aerobatic flight within a federal airway
- FAR 91.303(e) – Aerobatic flight below an altitude of 1,500 feet above the surface
- Airspace 5 NM radius from show center
- Airspace surface to 7,000 feet AGL for A-10, and 15,000 feet AGL for F-15/16.
- NOTAMs
- TFR

Chapter 8 – Air Traffic Control

- Hazards
- Runway Barriers
- Notification of local airports within 5 NM of airfield

Chapter 9 – Maintenance

- FOD Control
 - Aircraft engine oil samples (same day)
 - Fuel requirements
 - Maintenance equipment
- (1) High pressure liquid oxygen cart (Military – not medical)

- (2) Oil cart (MIL-L-7808) (F-15/16 only)
- (3) Hydraulic cart (MIL-H-83282)
- (4) 150 LB HALON or CO2 fire extinguisher
- (5) Universal tow bar
- (6) Six foot freestanding ladder (A-10 only)
- (7) Tow vehicle
- (8) Dash 60 Power Unit/Cart (F-15/16 only)
- (9) Nitrogen cart

Chapter 10 – Security

- () Crowd security
- () Aircraft security

Chapter 12 – Public Appearances

- () Event information

Chapter 13 – Air Force Recruiting

- () Enlistment/Reenlistment Ceremony (if applicable)
- () Coordinate with Air Force Recruiting personnel
- () Prime space for recruiting display booth, Recruiting Outreach Vehicle, Air Force Experience

Chapter 14 – Heritage Flight

- () Heritage Flight requirements outlined in chapter (to include specifics)
- () Lodging
- () Vehicles
- () Fuel
- () Parking
- () Flight Line Access
- () Contact individual Heritage Flight pilot to determine specific requirements

Air Show Director Signature

Date

Air Show Director Printed Name

ATTACHMENT 2

AIR SHOW INFORMATION SHEET

Air Show Title _____ Site/Location _____

Current Show Date and Takeoff Time _____

Base Operator	Command Post	Base Operations
DSN:	DSN:	DSN:
CMCL:	CMCL:	CMCL:

WG/CC Name: _____	OG/CC Name: _____
DSN:	DSN:
CMCL:	CMCL:

ACC SINGLE-SHIP DEMONSTRATION TEAM PROJECT OFFICER:

NAME: _____
DSN : _____
CMCL : _____
E-MAIL : _____
FAX : _____

ACC SINGLE-SHIP DEMONSTRATION TEAM MAINTENANCE REPRESENTATIVE:

NAME : _____
DSN : _____
CMCL : _____
E-MAIL : _____
FAX : _____

Air Show Director : _____	Billeting/Housing Rep : _____
DSN:	DSN:
CMCL :	CMCL :
FAX :	FAX :

Trans Rep : _____	Air Boss: _____
DSN :	DSN:
CMCL :	CMCL:
FAX :	FAX:

Local USAF Recruiter Name : _____
DSN : _____
CMCL : _____
E-MAIL : _____

ATTACHMENT 3

RELEASE OF LIABILITY

1. If courtesy/non-rental vehicles are being used, please return this letter upon completion. If rental vehicles are used, the U.S. Government will insure all members of the demonstration team (not to include civilian Heritage Flight pilots) while they're operating rental vehicles. Team members may or may not be covered with their own insurance when they operate courtesy/non-rental vehicles; therefore, the requirement for this letter.

2. Any questions concerning this issue should be directed to the demonstration team.

Show host endorsement and concurrence:

Concur / Non-concur
(Circle appropriate one)

Signature of Air Show Director

Date

Printed Name of Air Show Director