2020 Support Manual

United States Air Force
Air Demonstration Squadron

Thunderbirds

Summary of Changes

- Removed all references to Recognition Ceremony

- Ch. 1 Updated Thunderbird POC contact information.

- Ch. 3 Clarified vehicle requirements to include Large SUVs and ensure trailer light wiring is in good working condition. Updated flight line accessibility with respect to access list.

- Ch. 7 Defined show center marker length of 35', extensively revised Thunderbird VIP ticket section, updated verbiage to include not requiring a ticket for Thunderbird guests 10 and under when accompanied by an adult, increased VIP ticket amount to 250/day.

- Ch. 9 Added recommended information list that Thunderbird project officer should have ready.

- Ch. 11 Updated timeline for Public Affairs information sheet to 45 days prior, updated Fallen Warrior section.

- Ch. 12 Extensively updated entire section, requires thorough read through. Notably, the Thunderbirds do not consider local TV/radio personalities as eligible for media flights and shows located in the Eastern time zone will generally only have one flight available on Friday morning.

- Ch. 13 Extensively updated entire section, requires thorough read through.

- Ch. 14 Added request for itinerary for any formal events with a presentation at least 24 hours prior.

- Ch. 15 Clarified "prime" space for recruiting booth, added request for air show narrator to announce recruiting booth visit by Thunderbird personnel.

- Ch. 18 Updated arrival times for jets to Eastern and Central time zone shows to 4 pm and 3 pm, respectively.

- Attachment 12-2 Updated maintenance stand requirements for C-1 and B-7 stands, clarified movement of tines for forklift, clarified verbiage in multiple equipment requirements.

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GLOSSARY

Keys to Success

1. Read this support manual thoroughly! We realize it is a lengthy document and even if you have recently hosted the team, our requirements are continually evolving as we fine tune our operation. Please do not assume you already know the current requirements. After reading this manual, sign, scan and email the Support Manual Compliance Certificate (Attachment 24) to the Thunderbird Air Show Events Coordinator no later than **31 Jan 2020** or when your first 'deliverable' is due, whichever occurs first.

2. Ensure that the TFR and waivers are in effect and no aircraft (commuters, other demo teams, civilian traffic, etc.) enter into the airspace during arrival, practice and demonstration aerial work. **Make sure the center of TFR and Waivers are based off of Show Center as opposed to the airfield center of mass. At times this can be up to a mile off and could be a potential show stopper.**

3. Arrange for snow/FOD fencing for entire crowd line with no gaps below fence and ensure distance from Thunderbirds' jets nose tires to crowd line is ≥300'.

4. Ensure that Thunderbirds maintenance hangar is not used for any air show function and is ready for **exclusive** Thunderbirds use upon Advance Pilot arrival. Ensure the hangar is large enough for all 8 aircraft.

5. Coordinate for jets to park in the same location from arrival until departure. Ensure your ground parking plan takes into account the Thunderbirds aircraft and how that will affect your static aircraft arrival and parking.

6. Provide access to tow jets from hangar to jet parking location during duration of stay without towing through the crowd line.

7. Ensure all required AGE and vehicles are in place and ready for inspection at the designated time on the team's arrival day. Give yourself adequate time to collect and position all of the vehicles. In many cases, this will require you to place them the night before the team's arrival.

8. Ensure highly-visible show center and bomb burst markers are in place with accurate GPS coordinates in DD MM.MMM format prior to Advance Pilot's arrival. Accurate placement of the markers cannot be stressed enough. Thunderbird 1 will use these markers as his primary visual references. Please make every attempt to have them in place prior to Thunderbird 8's arrival. It is highly recommended the individual placing the marker utilize GPS equipment for correct placement.

9. Ensure the airfield is swept for debris before the first F-16 arrives to ensure all taxiways, parking areas and runways are clear of debris that could damage the F-16's engine. Please note, even small pebbles or loose asphalt can cause engine damage.

Chapter 1
Getting Started

1. IN GENERAL: We make operational and management decisions based upon the information you provide us. Ensure you keep our Thunderbird Air Show Events Coordinator informed and meet the planning checklist requirements and timeline.

2. THUNDERBIRD PROJECT OFFICER: Name one individual as your Thunderbird Project Officer and allow that person to be the sole source of contact with the Thunderbird Air Show Events Coordinator.

   a. The Thunderbird 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 our 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, etc.

   b. The Thunderbird Project Officer must be readily available for direct coordination at least 45 days prior to the air show. Please do not send your project officer on temporary duty (TDY) during this time, or assign additional duties that could conflict with air show requirements.

   c. The Thunderbird Project Officer needs to meet the Advance Pilot upon his or her arrival. For deployed sites, the Project Officer needs to be available at the Thunderbird aircraft parking location.

3. AIR FORCE RECRUITER: Recruiting quality candidates for military service is the heart of the Thunderbird mission. It is essential local recruiters take an active role in coordinating activities that enhance recruiting. Recruiters must work closely with your Public Affairs or Publicity representative for maximum benefit from our visit. Please keep them involved during your planning as they are a valuable resource.

4. PUBLIC AFFAIRS: An effective publicity campaign is crucial to a successful air show. The Public Affairs representative should distribute all pre-show publicity, arrange for media interviews, PR commitments, and live coverage of the air show. The representative is also responsible for coordinating with local recruiters, and coordinating all receptions, dinners, and public relations visits, as well as informing the Thunderbirds as to which events are spouse/children friendly for Thunderbird families who have traveled to the show site. He or she will not commit the Thunderbirds to any engagements until they receive authorization from the Thunderbird Air Show Events Coordinator.

5. MEDICAL REPRESENTATIVE: The Medical representative serves as a liaison between the Thunderbird Flight Surgeon and the nearest medical facility. The representative need not be on call and does not need to attend the Advance Pilot meeting. He or she simply acts as a liaison and provide information to our doctor.

6. MAILING ADDRESS

   a. When corresponding with the Thunderbirds, send all letters and packages to:

      (NAME)
      USAFADS "Thunderbirds"
      4445 Tyndall Ave
      Nellis AFB NV 89191-6079

b. Send important information by priority mail, in sufficient time to reach us before the suspense date.

7. TELEPHONE NUMBERS

a. Thunderbird Air Show Events Coordinator – Mr. Michael "Teddy" Rux
Comm (702) 679-2222 Cell (702) 378-7956
E-mail: michael.rux@us.af.mil

b. Public Affairs – Captain Remoshay Nelson / MSgt Terri Barriere / TSgt Ned Johnston
DSN 682-7200 / 9932/9902 Comm (702) 652-7200 / 9932/9902 Fax -6367
Email: remoshay.nelson.1@us.af.mil / terri.barriere@us.af.mil / ned.johnston@us.af.mil / usafads.pa@us.af.mil / afthunderbirds@gmail.com

c. Thunderbird Recruiter – TSgt Peter Rivera peter.rivera.2@us.af.mil

8. DEMONSTRATION FEE

a. Department of Defense policy states civilian shows must pay $6,000 per official demonstration. For example, a two day air show would require the civilian show site to pay $12,000. This is a partial reimbursement for expenses. Make checks payable to "Defense Accounting Office", and mail to the address listed above.

b. Checks must arrive at least 30 days before your air show. If the show is cancelled for any reason after the Thunderbirds arrive, we unfortunately cannot reimburse you.

9. AIR SHOW INFORMATION SHEET

a. The Air Show Information Sheet (Attachment 2 for military show locations or Attachment 3 for civilian show locations) contains essential information needed to prepare our itinerary. Please send as much information as possible immediately after ICAS so that we can begin the coordination process. The final version is due to the Thunderbird Air Show Events Coordinator no later than 60 days prior to 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, DSN, and cell phone numbers.

c. Correct spelling is extremely important, as some individuals will receive personalized lithographs derived from the information sheet. For military members, please verify what the individual's rank will be at the time of our visit.

10. SCHEDULE OF EVENTS

a. As soon as possible, please provide the Thunderbird Air Show Events Coordinator with a detailed schedule of your air show. It needs to list every event or flight where Thunderbird participation is expected (See Sample Air show Schedule of Events at Attachment 4).

GETTING STARTED CHECKLIST

Have you:	YES	NO
1. Sent your Air Show Information sheet?	[ ]	[ ]
2. Sent your Schedule of Events?	[ ]	[ ]
3. Mailed the $6,000 per demonstration fee (civilian sites)?	[ ]	[ ]

Chapter 2
Housing/Gym

1. HOUSING

Our Thunderbird Commander's Support Staff will work to obtain suitable lodging facilities for our team at your location soon after the season's schedule is approved and released to the public.
Recommendations are always welcomed, but the final choice of location will be determined by the Thunderbird Commander Support Staff

2. WORKOUT FACILITIES

a. The Thunderbirds are required to maintain a rigorous physical conditioning program during the show season. Please ensure that the Thunderbirds have access to a facility with a complete weight training area as well as a cardio training area. It must be available 0600-2200 during the team's entire stay, near the billeting location with fees waived. It is critical to confirm gym availability for the given times for both Saturday and Sunday since many military facilities are closed during air show weekends. The team does not need exclusive use of the facility, but rather access during the times as stated. Be advised, in most cases, due to minimal equipment availability, standard hotel gym facilities are inadequate to meet fitness requirements.

b. At military installations, we request to have access to the base fitness center between 0600-2200 during the entire duration of our stay. In the past, many military show sites have provided 24-hr access cards to the base gym. We will return access cards, such as these, when we return the rental vehicles prior to the departure of the team.

c. While the Thunderbirds travel with between 65-70 personnel, a realistic expectation for the number of team members utilizing gym facilities each day is closer to 25-30 personnel. We request approval for all Thunderbird members to utilize gym facilities, however the reduced actual usage figure may help gym management approve your request for access at non-military facilities.

HOUSING/GYM CHECKLIST

Have you:	YES	NO
1. For a military show site, have you coordinated with the show site to ensure the base gym will be open from 0600 – 2200 for the duration of our stay?	[ ]	[ ]
2. For a civilian show site, have you coordinated for a gym for use by the team for the duration of our stay?	[ ]	[ ]
3. Are the fees waived?	[ ]	[ ]

Chapter 3
Transportation

1. GENERAL

   a. The host Transportation representative must ensure vehicle requirements are met. Our Thunderbird Air Show Events Coordinator needs a written status report at least 60 days prior to your show date

   b. Funding for vehicles, **to include insurance**, is the responsibility of the show site. In case of accidental damage, the show site must be prepared to cover the deductible.

   c. Thunderbird personnel do not provide rental contract information to show sites. It is the show site's responsibility to provide vehicles for Thunderbird use. Please fill out all the rental contract paperwork prior to the arrival of the Advance Pilot.

   d. Regardless of the type of vehicles provided (rentals, courtesy, etc) we will not accept vehicles with **ANY** type of advertisement, dealership stickers, etc., as this could be interpreted as an implied endorsement by the USAF or the Thunderbirds.

   e. Unique situations, such as show site provided transit of Thunderbird personnel to/from hotel and airport, may drive changes to the team's transportation requirements. Any changes must be specifically coordinated in writing with the Thunderbird Events Coordinator and agreed upon 30 days prior to the show.

2. VEHICLES

   a. The host transportation representative must ensure:
      (1) Host personnel are briefed to release all required vehicles. We will ensure our people are qualified to operate rental, courtesy, or military vehicles.
      (2) All vehicles assigned for team use must be available for the duration of our stay including early arrivals, late departures, or extended stay due to aircraft maintenance problems.
      (3) All vehicles are placed on the flight line side and in the immediate vicinity of the Thunderbird support aircraft arrival parking area. Please do not mix Thunderbird vehicles with any other air show vehicles.
      (4) All vehicles assigned for Thunderbird use are authorized for the flight line as well as for use on and off base.
      (5) All vehicles are in place, **fully serviced and fueled with keys above the visor,** at the designated time in the Thunderbird itinerary. The Advance Pilot and/or Crew Chief will inventory and inspect the vehicles. The transportation representative must be present during the inspection.
      (6) All vehicles are in good mechanical condition and dependable with adequate seating and seatbelts.
      (7) Provide contact information to the Advance Pilot for 24-hour assistance in case of vehicle problems.
      (8) All cars must be non-smoking cars and cannot have been previously smoked-in vehicles (due to allergic and medical concerns for military members). Further, show sites must check to ensure the interior of all cars are clean (i.e.: trash from previous renters removed, seats cleaned of pet hair, etc.)

3. COURTESY CARS

   a. Please ensure those groups providing courtesy vehicles understand they will be used on and around the flight lines, outdoors, and in some cases off paved roads. The vehicles will be used to transport equipment required to service the aircraft to include use of the truck beds. We will make EVERY effort to keep the vehicles in the condition they were given to us in, but they are work vehicles during our stay.

4. REQUIRED VEHICLES

a. Minimum vehicle requirements are:
Total vehicles required = 34 + 3 Golf Carts

16 Sedans
15 Mini-vans or Large SUVs (e.g. Nissan Armada or Chevy Suburban)
1 Full-size (15 passenger) van WITH SEATING FOR 15 PASSENGERS (If this is difficult to attain, alternatives can be arranged)
1 Standard size 4-passenger truck with hitch receiver capable of towing 4,500 lbs., trailer lights wiring with 4 doors and air conditioning (Please ensure the trailer lights wiring is in good working condition)
1 12'-long (minimum) flat-bed (or stake-bed) truck (1 or 1½ ton) (with smoke oil loaded)
3 Golf carts for Public Affairs, Recruiter and Communication Personnel (request one 4-6 passenger golf cart if available)

NOTE: The number of vehicles required may change depending on the length of our trip, distinguished visitors travelling with the team, etc. Please contact Thunderbird Air Show Events Coordinator prior to making vehicle arrangements to get an updated list of required vehicles.

b. The flatbed truck may be substituted for a trailer with low sides capable of holding six 55-gallon drums of smoke oil.

5. FLIGHT LINE ACCESSIBILITY

a. The host Transportation representative must ensure that all vehicles assigned to the Thunderbird team have access to the flight line starting with the arrival of the advance team through the team's departure. **Please make every attempt to work with ramp security to accomplish this regardless of military or civilian show site. The vehicles provided are mission critical and are essential to the movement of our equipment on a daily basis**.

b. All Thunderbirds are required to possess an airfield driver's license at Nellis AFB. We drive around nearly every type of aircraft in the Air Force inventory on one of the busiest flight lines. Due to the time constraints, we do not have time to receive an Air Field Driving briefing from each site we go to. Please work with the Air Show Coordinator if your airfield management requests to provide a brief.

c. Vehicle access to and from the support aircraft, Thunderbird jets, and the designated hangar should be coordinated with the airboss and/or control tower so that minimal communication is required for the vehicles. **Experience has shown that requiring clearance across or down active taxiways can create unacceptable delays**. We request active taxiways be placed in uncontrolled status to allow vehicles to cross without requiring a clearance from ground control – the Thunderbirds will give way to any taxiing aircraft. If such a situation is unavoidable please provide escorts on both sides of the affected taxiway to facilitate vehicle travel from the arrival of the morning shift until all aircraft maintenance is completed each day.

d. We will place a Thunderbird placard on the dash of each vehicle assigned for our use as the primary means of identification. Please ensure security and traffic-control personnel are briefed.

e. Due to the dynamic nature of our show schedule, the Thunderbirds are unable to provide an EAL. However, we will provide a passenger manifest NLT 24 hours prior to the team's arrival. This manifest includes all official Thunderbird personnel.

6. VEHICLE TURN-IN

Thunderbird personnel will return all vehicles near the support aircraft parking location. All vehicles will

be returned with fuel remaining only.

TRANSPORTATION CHECKLIST

Have you:	YES	NO
1. Provided a written status report 60 days prior?	[ ]	[ ]
2. Cleared all Thunderbird vehicles for flight line use?	[ ]	[ ]
3. Ensured all 34 vehicles and 3 Golf Carts will be available for the duration of our stay?	[ ]	[ ]
4. Notified the rental car representative of the time and location of the Advance Pilot's Meeting?	[ ]	[ ]
5. Arranged to park the vehicles near the support aircraft?	[ ]	[ ]
6. Fuel and serviced all vehicles?	[ ]	[ ]
7. Arranged TWO vehicles for the early arrival of the Advance Pilot and Crew Chief? (Sedan and mini-van)	[ ]	[ ]

Chapter 4

Maintenance

1. GENERAL: The air show is responsible for obtaining and arranging the required support listed in this manual, and for incurring the costs involved in obtaining and transporting the equipment and materials. The show site is also responsible for any fuels costs associated with AGE equipment use. Please provide the Thunderbird Air Show Events Coordinator a written status report of all equipment at least 60 days prior to your show date.

   a. In addition to the initial 60 days prior written status report, the show site must provide a 30 days prior written status of any equipment shortfalls (missing equipment, reduced quantities, etc.) or intent to substitute any of the required equipment with non-approved (not listed in Attachment 12) substitutes.

2. FOREIGN OBJECT DAMAGE (FOD) CONTROL

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

   b. F-16s are highly susceptible to FOD. Ensure all taxiways, parking areas, and runways are swept and cleaned prior to the arrival of the Advance Pilot, and that these areas remain clean during our stay. Do not use sweepers that have steel bristles. **Do not plan to park the F-16s on a ramp that is breaking up, or has an asphalt/gravel surface that releases pebbles easily.**

   c. Snow fencing is a MUST and will prevent FOD from blowing onto the runways and taxiways. Ensure snow fencing is erected so it touches the ground and is sandbagged to prevent trash blowing underneath the fence. Orange, nylon FOD fencing is an acceptable alternative to snow fencing along the crowd line. Also, please place containers suitable for FOD disposal (two garbage cans) near our maintenance hangar.

3. ARRIVAL PARKING COORDINATION

   a. We request to park in our show parking location upon arrival. We will NOT accept a plan which requires towing all 8 aircraft each day. Arrangements can be made for us to position to show center after Friday's rehearsal and remain there until after Sunday's performance.

   b. For downloading and uploading cargo on arrival and departure days, park the C-17 or C-130 support aircraft as close to the maintenance hangar as possible.

   c. The host site Maintenance representative must be available upon the arrival of the Advance Pilot and Crew Chief. The Maintenance representative should plan to shadow the Advance Crew Chief for the remainder of the day and be available for the entire duration of the Thunderbirds stay.

4. HANGAR SPACE

   a. We may need to hangar our 8 F-16s for security reasons, inclement weather, or aircraft maintenance. The dedicated hangar **must** be clear of all aircraft/equipment prior to the arrival of the advance team (do not plan on using our dedicated hangar space for air show parties/functions). It should NOT be located across an active runway from our parking location. If you cannot guarantee hangar space to protect these resources, we may be unable to perform at your site.
      (1) Ensure the hangar space you select for our aircraft is empty and dedicated for our exclusive use throughout the duration of our stay.
      (2) The hangar must have a minimum of 15,000 square feet of useable floor space with 20-foot door/ceiling clearance, or equivalent space in multiple hangars.

(3) The cost of hangar space is the show sponsor's responsibility, to include our extended stay due to maintenance or airlift support problems.
(4) If, due additional space, our dedicated hangar is shared with other aircraft, equipment, etc, we must be able to tow our aircraft into and out of the hangar at any time (duty and off-duty hours) during our stay without hindrance by the other aircraft, equipment, etc.

b. We need unlimited access to tow an F-16 from the hangar to the show parking location without traveling through the crowd. If the tow route is through the crowd area, this will require you to rope off a route or provide escorts to clear a path through the crowd and enable safe expeditious towing during show hours.

5. AIRCRAFT ENGINE OIL SAMPLES

a. We carry a Spectroil Jr. oil-analysis machine and will provide this service for other military demo teams, with prior coordination.

b. To operate the oil analysis machine, we require a ground floor area in a building (our primary maintenance hangar, fire station, etc.) with a trash can. It is preferable this building be as close to our support aircraft as possible.

6. FUEL REQUIREMENTS

a. We will need two single-point-refueling trucks and one de-fueling truck available for use during our stay.
(1) Normally, we will not refuel our F-16s until after our support aircraft arrives and media/flight line activities are concluded.
(2) Fuel trucks should be in place 30 minutes after our initial arrival.
(3) Post-practice/show refueling will be coordinated for 1 hour after landing through our Maintenance Operation Control representative via phone or radio.

b. We will pay for fuel at military show sites using the DoD fuel card for each respective aircraft. Civilian show sites purchasing jet fuel will be reimbursed at the DoD Fuels Contract rate or into-plane price. As we only pay for fuel consumed, do not make any guarantees to the vendor. If ordering from an Air Force facility, you may have to pay for handling, transportation, and/or storage.
(1) The show site must pay the difference above the into-plane cost.
(2) Costs related to transporting fuel is the responsibility of the show site.

c. Fuel Quantities – Each aircraft burns approximately 800 gallons of aviation turbine fuel per flight.
(1) Each aircraft will require approximately 800 gallons after our arrival and survey.
(2) A practice flight consumes approximately 4,800 gallons of aviation turbine fuel.
(3) A demonstration flight consumes approximately 4,800 gallons of aviation turbine fuel.
(4) A media flight consumes approximately 900 gallons of aviation turbine fuel.
(5) A standard weekend including 1 practice, 2 demonstrations, and 2 media flights will require approximately 16,200 gallons of aviation turbine fuel.
(6) The support aircraft crew will pay for their own fuel and will require approximately 6,000 gallons.

d. Fuel Specifications – Acceptable fuels for Thunderbird aircraft include JP-4 (NATO Code F-40), JP-5 (NATO Code F-44), JP-8 (NATO Code F-34),Jet A with military additives (NATO Code F-24); Jet A, Jet A w/Fuel System Icing Inhibitor (FSII), Jet A-1 (NATO Code F-35), Jet A-1 w/FSII, and TS-1 with U.S. military additives. Thunderbird fuel must be fuel-lab certified and provided by a certified vendor. All fuel must meet respective fuel grade specification, regardless of the type, including FSII limits.
(1) Aviation turbine fuel use limits:
i. Solids - 4.0 MG/Gal maximum
ii. FSII - .04-.20% by volume
iii. Electrical conductivity shall be 50 - 700 pS/m
(2) Aviation fuels must pass through two separate filtrations downstream of bulk storage, with at least one filtration being via the aircraft refueling equipment. All aviation turbine fuel must contain FSII.

7. SMOKE OIL REQUIREMENTS

NOTE: You should order smoke oil at least 60 days in advance of your show.

a. Purchasing Smoke Oil - smoke oil should be obtained in 55-gallon drums and placed on a 1 ton or 1½ ton truck or trailer with low sides. If all the drums cannot fit, please place a forklift by the remaining drums to assist in loading.
(1) **Only full, unopened barrels are acceptable.**
(2) For military show sites, the Thunderbirds will reimburse the cost of smoke oil used.
a. Military unit Resource Advisor will contact Thunderbirds Resource Advisor NET 30 calendar days prior to Thunderbirds arrival.
b. Provide completed contract, paid invoice, and signed hand receipt of quantity used to Thunderbirds Resource Advisor NLT 10 business days after airshow.
c. Reimbursement will be through MIPR CAT I or CAT II (DD Form 448) and must be completed in DEAMS. Ensure Financial Management Accounting (FMA) office contact information is accurate and complete.
d. DD Form 448-2 must be provided to Thunderbirds Resource Advisor, once funds have been received, for accountability.
(3) For civilian show sites, the air show organizer is required to pay for all smoke oil.
(4) For both military/civilian show sites, consider building a clause that will allow you to return any unopened barrels of oil to the vendor into your smoke oil contract.

b. Smoke Oil Quantities - the Thunderbirds will require the following amounts of smoke oil (contingent upon our schedule at your location):
(1) 3 drums after the arrival survey
(2) 5 drums per practice flight
(3) 5 drums per demonstration flight
(4) 1 drum per media flight
(5) A standard weekend consisting of the arrival, 1 practice, 2 demonstrations, and 2 media flights will require 20 drums of smoke oil

NOTE: The number of barrels required may change depending on the length of our trip, and any extra flights planned at each location. The Thunderbirds Event Coordinator will let your show site know as soon as possible if there will be extra barrels required. Any more than 20 barrels will be reimbursed by the Thunderbirds.

c. Smoke Oil Specifications – USAF Technical Orders only allow the use of the products listed below. Please check each barrel individually during acceptance to avoid aircraft contamination.
(1) Acceptable smoke oil:
a. Chevron U.S.A., Inc Canopus 13 04BH0
b. Shell Oil Company Aeroshell Smoke Oil 5W416
c. Copper State Petrol. CSP Aviation Smoke Oil 6TAZ7
d. W.S. Dodge Oil Company Smoke Oil C13 0XAK2
e. PetroBlend Corporation Pure White Smoke Oil 7G4W2
f. Petro-Canada Paraflex HT10 Fluids 0NVS1

8. HYDRAZINE (H-70) SUPPORT

a. H-70 Response - The F-16 aircraft has an Emergency Power Unit (EPU) containing 6.8 gallons of hydrazine (H-70). This particular solution is 70% pure hydrazine and 30% water.
(1) Disaster response procedures are necessary for any H-70 spill or leak, regardless of quantity or location.
(2) Thunderbird maintenance personnel will neutralize, contain, and remove all H-70 spills, then contact the appropriate base/area personnel.
i. Special H-70 Maintenance Area - In the unlikely event of an EPU activation or H-70 spill, we must have a designated area for maintenance near the runway. This area must be large enough to accommodate an F-16 aircraft and be located no less than 1,000 feet from any person or inhabited structure. Make sure this area is not near a sewer opening or drainage ditch, so the spill will not enter local water systems.

9. MAINTENANCE RADIO FREQUENCIES

a. We will utilize our own hand-held FM radios while at your location. Please contact your base frequency manager at least 30 days prior to our arrival to identify/avoid any potential frequency problems.

b. Our frequencies are 413.275 and 413.325. We only require one clear channel to operate. If both our frequencies conflict with others in your area, the show site must complete one of the three following options:
   (1) Make arrangements to clear one frequency for our use or,
   (2) Provide us with a frequency we can use or,
   (3) Supply 15 hand-held FM radios and chargers with a clear net.

10. HAZARDOUS WASTE DISPOSAL

a. We require a means to dispose of hazardous waste (used hydraulic fluid, oil, fuel, soak up pads, etc).

11. MAINTENANCE EQUIPMENT REQUIREMENTS

a. Exact requirements are listed in the charts on Attachment 12. This is the minimum amount of support equipment we require to guarantee a successful air show. It must be dedicated to the team for the duration of our stay.

b. If you are planning to co-utilize any of this equipment with anyone else, or make any substitutions, it must be discussed with the Thunderbird Air Show Events Coordinator at least 30 days prior to our arrival. Co-utilization may increase the quantities required to support your air show.

c. Maintenance equipment may be obtained from nearby military installations; however, you may be responsible for costs incurred in transporting the equipment. It is the show site's responsibility to coordinate with military installations for the use of support equipment. **Please check all equipment to ensure it is fully serviced and operational.** The cost of fuel for AGE equipment is the responsibility of the show site.

d. Maintenance equipment must be in place near the maintenance hangar before the Advance Pilot arrives. <u>Placing the equipment in an area where we need local support to access it is unacceptable.</u>

e. In the event a military instillation requires a Memorandum of Understanding (MOU) to utilize maintenance equipment, a sample MOU is attached (See Attachment 23) for reference.

MAINTENANCE CHECKLIST

Have you:	YES	NO
1. Arranged for sweeping and cleaning parking ramps, runways, and taxiways prior to Advance Pilot arrival?	[ ]	[ ]
2. Ensured the designated parking area has certified grounding points for all 8 F-16s?	[ ]	[ ]
3. Coordinated parking spaces for our aircraft upon arrival, the day of the show, and on departure day?	[ ]	[ ]
4. Procured all equipment listed in Attachment 12 and hangar space?	[ ]	[ ]
5. Designated facilities for our oil analysis lab?	[ ]	[ ]
6. Ensured support equipment is serviced and operational?	[ ]	[ ]
7. Placed all support equipment near our maintenance hangar?	[ ]	[ ]
8. Procured fuel and smoke oil?	[ ]	[ ]
9. Confirmed that fuel costs will be at or lower than government-contract prices?	[ ]	[ ]
10. Coordinated maintenance-support arrangements with our Thunderbird Air Show Events Coordinator?	[ ]	[ ]
11. Designated an isolated area for hydrazine (H-70)?	[ ]	[ ]
12. Contacted the base frequency monitor to confirm our land mobile radio (LMR) frequencies?	[ ]	[ ]
13. Inspected the hangar space to make sure it is EMPTY?	[ ]	[ ]
14. Provided a status report for maintenance equipment to the Events Coordinator 60 days prior?	[ ]	[ ]
15. Provided a status report for equipment shortfalls and substitution intents 30 days prior?	[ ]	[ ]

Chapter 5
Security

1. CROWD SECURITY

   a. Well-organized crowd control is essential to ensure the safety of spectators and to satisfy FAA requirements.

   b. For effective crowd security, the air show must:
      (1) Set up a physical barrier to act as a crowd line and keep all spectators behind this line.
      (2) Establish procedures, including road closures, physical sweeps, or water patrols, to clear the aerobatic box prior to any aerobatic flight. This includes practices and any other time aerobatics will be performed in the aerobatic box. The Thunderbird Event Coordinator will indicate any flights, outside of the practice and show performances, that require a sanitized aerobatic box.
      (3) Position one security/law enforcement person at either the air boss stand or at our communications trailer during our flight times. (This applies to both practices and demonstrations.) It is very important for this person to have a reliable communication link to other security personnel on the site in order to quickly correct security deficiencies.
      (4) Brief your air show security team on all procedures for the air show.
      (5) Provide a crowd count estimate to the host Public Affairs representative within one hour after landing.

   c. Bona fide photographers desiring to take photographs closer than the crowd line must get approval from, and be escorted by, a Thunderbird Public Affairs representative.

2. AIRCRAFT SECURITY

   a. The Security/Law Enforcement representative must coordinate all matters of aircraft security. He or she must:
      (1) Arrange for 24-hour protection of all Thunderbird F-16s and the support aircraft, from Advance Pilot arrival until the team departs.
         i. Military security forces are preferred for security detail.
         ii. Police detail is acceptable if military security forces are unavailable.
         iii. If our support aircraft will remain at your show site you must provide security for it as well. If the parking plan does not allow the same security detail to monitor both our F-16s and support aircraft you must provide additional security personnel.
      (2) The show organizer is responsible for providing the security force and ensuring the F-16 and support aircraft parking areas are well lit at night.
      (3) Establish access procedures for all Thunderbird aircraft. At no time will our support aircraft be open to the general public. Only personnel with Thunderbird escorts are authorized to be near any of our aircraft.
      (4) Ensure Thunderbird members have unimpeded access to the aircraft at all times.
      (5) Provide a representative to the Advance Pilot/Narrator meeting with “Red Line Status” for military installations.

3. POLICE ESCORTS

   a. Due to the likelihood of traffic congestion leading into your show site on the day of the show, we will require two police escorts for each show day. Contact the Thunderbird Air Show Events Coordinator for times.
      (1) We request a dedicated unit on the front and rear of the caravan.

(2) There should be enough additional units to stop traffic at intersections and lead our convoy through traffic lights.

b. There will be approximately 25 cars in our first departure and 10 in the second departure. All Thunderbird vehicles will be clearly marked with placards on the driver side window, Thunderbird flags attached to the driver's side rear window and will travel with headlights and hazard lights on.

c. We request the lead police unit not exceed the posted speed limit.

d. For show sites where our lodging location is not in close proximity to the air show, be prepared to provide a "staging location" where the Thunderbirds can meet the police escort into the show site. In all other cases, the police escort should begin at the lodging location for the team.

e. Alternatives to a police escort will be reviewed on a case-by-case basis by the Thunderbird Event Coordinator. An example of an acceptable alternative is team access to the show site (both operations and maintenance work areas) via an additional non-public access gate that is relatively free of traffic during air show hours.

4. MOVEMENT ON BASE/AIRFIELD

a. The Thunderbird team needs to be able to move throughout the airfield or base environment quickly and efficiently in order to conduct our mission.

b. If billeted on base, ensure the vehicle traffic plan on air show days allows for team members to efficiently move from billeting to our work area. This may include providing traffic breaks to allow Thunderbird vehicles to cross general traffic inbound/outbound lanes, as well as allowing Thunderbird vehicles to pass through road blocks in order to get to the maintenance hangar and/or operations area. It is imperative these instructions are passed to the lowest echelon of security forces to allow efficient movement on base.

c. In the case of a civilian airport with secure gate access, ensure the Thunderbirds have the appropriate codes to access flight line gates and/or station security personnel at the gate to allow team member entry from 0600-2200 hours.

d. If Thunderbirds are required to remain at the show site or airport after 2200 due to maintenance of our aircraft, or report to work prior to 0600, the show site is responsible for either providing 24-hour access gate codes or a POC for "after-hours" access to and from the aircraft parking area.

SECURITY CHECKLIST

Have you:	YES	NO
1. Established procedures to maintain the crowd line?	[ ]	[ ]
2. Arranged 24-hour security for our aircraft?	[ ]	[ ]
3. Arranged for and discussed procedures for police escorts?	[ ]	[ ]
4. Planned to provide a crowd count to your Public Affairs Rep?	[ ]	[ ]

Chapter 6
Public Address System

1. GENERAL

   a. It is your responsibility to provide a public address system for your air show. If you cannot provide a public address system, you must notify the Thunderbird Air Show Events Coordinator NLT 90 days prior to your show. We will bring our own public address system that covers approximately 300-foot frontal area and contains all amplifiers, speakers, microphones, and radios necessary for required transmission/reception. The Thunderbird sound system will be used only for the Thunderbird demonstration. It is not available as a sound system for the entire show. We desire to tie-in to the show site's public address system, but reserve the right to use our own system if required.

   b. Commercial radio broadcasts of the narration and Thunderbird air show music are possible through direct tie- in. We encourage shows with large crowd viewing areas – especially beach shows – to coordinate with a local radio station to broadcast the narration and music via a tie-in with our communications trailer; this will increase our exposure to the viewing crowd which may be out of listening range of the available speaker setup. The broadcast must be commercial free during the Thunderbird show.

   c. If radio or TV stations need power, the sponsor must provide it.

   d. During the Friday practice session the Thunderbird Communications Specialist will tie-in to the show site's system. To make an accurate test of the show location system, it must be completely set-up and at the same volume levels that will be used for the show. Our communications specialists must control all tie-ins. No unauthorized tie-ins will be allowed.

   e. Normally, the communications trailer is stowed in the maintenance hangar. At deployed show site locations, i.e. a beach, please provide either a secure storage facility at the show site, or provide overnight security at the communications trailer if left outside.

   f. The trailer is 120" long, 77" wide, 84" high, and weighs 4,400 lbs.

2. SPONSOR REQUIREMENTS

   a. Music Licensing Rights: The United States Air Force requires that any U.S. air show -- civilian or military -- hosting an Air Force aircraft demonstration must secure the necessary music licenses for broadcast of pre-recorded, copyrighted music over public address speaker systems. On behalf of all U.S. air shows, the International Council of Air Shows (ICAS) has negotiated a rate of $150 per public air show day from BMI and ASCAP and $65 per air show weekend from SESAC. These rates are not controlled or negotiated by the USAF and are subject to change. (Note: This rate applies only to music broadcast over the public address system during the air show portion of the program and does not provide the show with the right to use pre- recorded music at concerts or other non-air show special events held in conjunction with the air show.) Each event organizer should secure music licenses from BMI, ASCAP and SESAC and provide proof of licenses to the teams no later than 30 days prior to the event. Contacts to obtain these licenses are listed on the ICAS website (http://www.airshows.aero).

3. COMMUNICATIONS TRAILER SET UP

a. The communications trailer will normally be set up at or near show center just in-front of the crowd line. To ensure your VIPs have an unobstructed view of the demonstration, place your VIP section slightly to the left or right of show center, not directly behind the communications trailer.

b. Our PA system must be fully operational in order to perform our aerial demonstration. Normally, the system will be operational 1 hour prior to the Thunderbirds' takeoff for the air show.

c. A three to five minute sound check will be required before the demonstration. Our communications specialists will coordinate with the show site narrator or communications person prior to testing our system.

d. Our communication trailer personnel will need a golf cart for Saturday and Sunday setup. This is included in the vehicle request. We request the golf carts be located at the show site in the case of a deployed show.

e. Our communications system will be picked up following the autograph session. Please DO NOT handle any Thunderbird PA equipment.

f. Request 5 gallon container of mo-gas available on Friday's practice day out the communications trailer to power our generators.

g. Our current Communications Specialist Non-Commissioned Officer In-Charge/Point of Contact can be obtained from the Thunderbird Events Coordinator.

4. THUNDERBIRD AUDIO OUTPUTS

a. The audio signal from our communications trailer is a balanced line level, from an XLR connector. The output will consist of music and narration only.

b. Stations desiring to patch into our system must be prepared to supply the cable for the tie-in. The cable should be long enough to reach our communications trailer (situated at show center near the crowd line), and have three pin XLR female connectors. This needs to be pre-coordinated with Thunderbird Public Affairs the weekend of the show, and the station(s) will need to be in place no later than 1 hour prior to the start of our show.

5. PUBLIC ADDRESS EXPECTATIONS

a. From the beginning of our ground ceremony (30 minutes prior to takeoff) until the end of our aerial demonstration, no announcements on other PA systems, engine or APU runs, bands playing, drill teams marching, etc., should be allowed. Just prior to our autograph session we will allow the show announcer 2-3 minutes to make announcements and thank the crowd for attending the show as well as play appropriate music while we are on the autograph line. <u>We no longer restrict aircraft departures during this time.</u>

b. If you must make an emergency announcement during our show, please bring it to the Thunderbird communications trailer.

5. SAFETY

a. For the safety of all concerned, do not allow spectators to cross the crowd line and come near the communications trailer, the speakers, speaker cable connectors, or other associated equipment.

PUBLIC ADDRESS SYSTEM CHECKLIST

Have you:	YES	NO
1. Briefed your narrator of our expectations of how we will get the microphone and when they can make announcements after the show?	[ ]	[ ]
2. Coordinated requests for radio patch-ins or re-broadcasts?	[ ]	[ ]
3. Located a storage area for the trailer with proper outlets?	[ ]	[ ]
4. Discussed the potential for tie-ins with your sound team?	[ ]	[ ]
5. Discussed the potential for tie-ins with your PA for media?	[ ]	[ ]

Chapter 7
Airfield Setup

1. SHOW LINE

   a. Choosing a show line is possibly the most crucial decision you must make. The show line will determine the location of your aerobatic box, crowd line, and show center. If you have any questions about your show line send out an aerial photo or map to the Thunderbird Air Show Events Coordinator and ask the Operations Officer to call you to discuss the placement.

   b. The show line should be an absolute straight path over the ground, located 1,200-1,500 feet in front of the closest portion of the spectator area. The Thunderbird pilots will use this line as their primary reference during their demonstration.

   c. When selecting an overland show line you have three potential options listed below in order of preference:
      (1) Natural Show Line - The optimum choice is a natural show line that runs along or parallel to and within 200 feet laterally of a runway or taxiway.
      (2) Aligned Natural Show Line - The second choice is a natural show line aligned with, or parallel to and within 200 feet laterally of, a clearly visible straight path on the ground. Examples of this might include highways, distinctive tree lines, or pipelines.
      (3) Artificial Show Line - If the show line is not on or parallel-to a natural show line, please ensure the show line is free of major obstacles and significant build-up within the aerobatic box (e.g. multiple radar facilities, construction sites, buildings, etc). In addition, after reviewing your show line, we may require the show site to mark a white line on the ground (40 feet wide x 5,000 feet long) to clearly identify the show line. This can be white plastic, white sand, etc, but must be secured to the ground. <u>Do not place extra vehicles on the show line to help define the ground track.</u>

   d. You MUST provide the Thunderbirds Air Show Events Coordinator an airfield diagram of your show setup at least 90 days prior to your show to allow adequate review.

   e. Over-Water Show Line - For demonstrations flown over-water the artificial show line is defined by two boats, each a MINIMUM of 35 feet in length with significant vertical development and preferably white in color. One boat must be anchored at show center and another anchored at the bomb burst cross point.
      (1) <u>Please ensure the boats will be in the same exact location each day</u>. This can be accomplished by using a hand-held Global Positioning System (GPS), buoy markers, etc. The boats must be in position no later than (NLT) 1 hour prior to our arrival survey/practice/demonstration. Boats must verify GPS position via phone with the air boss or Thunderbird Control NLT 1 hour prior to our arrival survey/practice/demonstration. If possible, boats need to be anchored off both the bow and stern to prevent them from swinging around during the demonstration. Definition of the show line is critical to the demonstration and the success of your air show. Without the boats to define the artificial show line, the Thunderbirds will not be able to perform the demonstration.
      (2) You will need the assistance of the Coast Guard or Lake Patrol to ensure other boats do not enter the demonstration area and mingle with the two boats that mark the show line. A typical over-water air show diagram is located in Attachment 7. Ensure the Coast Guard/Lake Patrol boats used to enforce the erobatic box are not moving inside the aerobatic box during the demonstration, as this is potentially disorienting to the pilots.
      (3) Please have a Coast Guard representative with 2-way communications to the patrol boats available at either the airboss stand or at the Thunderbird communications trailer during the team's arrival survey, all practices, and demonstrations.
      (4) In the interest of safety for our pilots and spectators, we cannot allow parasailing inside the TFR during our arrival survey, practices, or demonstrations. Please work with local municipalities to ensure that all

parasailing operations are terminated prior to, and for the entire duration of our TFR times.

2. SHOW CENTER MARKER

   a. Show center is the location the Thunderbirds will use to center each maneuver during the demonstration. If possible, locate show center in a highly-visible area. Examples are on the edge of a runway or the edge of a taxiway.

   b. The show center marker must be in the center of the 12,000 foot aerobatic box with 6,000 feet on each side.

   c. The show center marker should be a large, highly visible vehicle, a minimum of 35 feet in length: white, yellow, blue, or orange in color (that contrasts with surrounding terrain) with significant vertical development. Examples include, but not limited to: large snowplows, buses, and semi-truck trailers. These markers should be mobile to allow for repositioning if needed after the Advance Pilot's arrival.

   d. This marker should be in place <u>for the Advance Pilot's arrival, the arrival survey, all practices, and demonstrations.</u>

   e. If the edge of the runway is the show line, the vehicles should be placed at least 100 feet (but less than 300 feet) off the runway so as not to interfere with takeoff or landing.

   f. A NOTAM may be required for placement of the markers if near an active runway. Check with the local airfield manager.

   g. Please arrange the SHOW CENTER marker so it faces **PERPENDICULAR** to the show line (i.e. the show center marker points at the crowd).

   h. If the physical center of the crowd (CROWD CENTER) is not co-located with the SHOW CENTER then we request you submit your TFR distance as "OTHER" and use at least 5.5 NM as your TFR radius. This will ensure the TFR encompasses enough room so no modifications to our show are required.

3. BOMB BURST MARKER (WHERE JETS WILL CROSS DURING BOMB BURST MANUEVER)

   a. The cross point for the bomb burst must be located on the same show line as the show center marker - **<u>500 feet past the right edge of the crowd line</u>**. The best way to envision this marker is to imagine you are the very last person on the right side of the crowd watching the show. The bomb burst cross point would be 500 feet to your right. For our planning purposes, please provide the distance in feet from the show center and bomb burst crossover.

   b. The best distance for the bomb burst marker from the show center marker is 2200'. If you have a long crowd line, this may not be possible. The priority is to always have the Bomb Burst Marker no closer than 500' from crowd right at all times.

   c. The bomb burst marker should also be a large, highly-visible vehicle using the examples listed above.

   d. This marker must also be in place <u>for the Advance Pilot's arrival, the arrival survey, all practices, and all demonstrations</u>.

   Please arrange the BOMB BURST marker so it faces **PARALLEL** to the show line.

4. SHOW PARKING

a. Our preference is to recover the aircraft at the same parking location we will use for the show, and to remain there until our departure. An acceptable alternative is to recover the aircraft on arrival day to an alternate location, and then recover to show parking at the completion of our practice session. It is not acceptable to build a plan that requires us to tow all 8 aircraft from one location to another for the show. Ensure your static display aircraft arrival plan takes into account our parking locations. Require any large aircraft that cannot taxi in/out around the Thunderbird parking location to arrive before the practice session and stay until after the Thunderbirds depart. It is not acceptable to assume the Thunderbirds will tow our aircraft to make room for static display arrivals or departures.

b. The 8 F-16s will park in the same location until the morning of the demonstration; at that time the two spare aircraft will be towed to the end of the primary runway. Thunderbird #8 will coordinate during the Advance Pilot's meeting for these locations.

c. For the safety of the crowd, it is necessary to ensure our aircraft are parked with the nose wheel of any aircraft positioned no closer than 300 feet from the crowd for engine start. We reserve the right to waive the requirement down to 250 feet with prior coordination.

d. We request to park all 8 jets at show center to provide the crowd a clear view of the maintenance and support personnel, maximizing recruiting capability. If you are not able to get 300-foot clearance consider "notching" the crowd line where the F-16's are parked. ( )

e. Minimum taxiway width for parking is 75 feet. Our support aircraft should also be parked on the same side of the runway as the F-16s, near our maintenance hangar. You should select an area that will give Thunderbird pilots and maintenance personnel unrestricted access and movement without crossing active runways. Ensure both parking areas have proper weight-bearing capacity. NOTE: The Thunderbird parking plan (or its mirror image) is shown in Attachment 6. This parking plan must be indicated on the airfield diagram (See Attachment 5).

f. Please do not park the support aircraft where it blocks spectator view of the show line. Our support aircraft and spare F-16 are not static display aircraft, and general access will not be permitted.

g. If you plan to use a 500-foot show line for civilian performers, our aircraft must be parked at least 200 feet from the 500-foot show line to avoid over flight of our aircraft.

h. Please attempt to avoid taxiing other aircraft in front of our 8 F-16s.

i. We cannot allow any show acts (aircraft, jet trucks, etc.) to smoke on the ground in front of our jets. Residue from the smoke oil will cover our canopies and reduce pilot visibility.

5. CROWD LINE

a. The crowd line is a physical barrier preventing spectators from moving forward during an air show. Use snow fencing in combination with chain-link or bicycle fencing to prevent FOD from blowing onto the taxiways.

b. The optimum distance for the crowd line is 1,500 feet from the show line.
   (1) If the only well-defined show line is closer to the crowd than 1,500 feet, and it is not possible to move the crowd line back, it is permissible, with FAA approval, to locate the crowd line a minimum of 1,200 feet from the show line.
   (2) Exceeding 1,500 feet for the crowd line is permissible, but distances greater than 1,500 feet progressively reduce the effectiveness of the demonstration.

c. Due to the design of our demonstration with regard to spectator safety, please reference the table below to determine how far right of show center your crowd can extend. Your crowd can extend no further than 4,000

feet left of show center. If you are unable to meet this requirement, contact the Thunderbirds Air Show Events Coordinator ASAP and allow us to determine if we can safely execute a show at your location. **Failure to adhere to this restriction may force us to cancel our demonstration**.

Distance from Crowd Line to Show Line	How far Right of Show Center crowd is allowed
1200’	1080’
1300’	1250’
1400’	1415’
1500’	1600’
1600’	1770’
1700’	1960’
1800’	2120’

d. All static display aircraft should be positioned well behind the crowd line. For suggested arrangements of your show line, crowd line, and aircraft parking see the illustration in Attachment 5, or contact the Thunderbird Air Show Events Coordinator, Operations Officer or Advance Pilot.

e. The FAA requires the aerobatic box be void of all people who are not mission essential during our practice and demonstration days. The aerobatic box is defined as the area from the crowd line to the show line, and 1,200 to 1,500 feet beyond the show line (for a minimum depth of 2,700 feet), and 6,000 feet either side of show center. (See Attachment 5.)

(1) Only essential personnel are permitted in the aerobatic box, i.e. demonstration teams and fire/rescue personnel.

(2) The strict nature of this FAA guidance means that access to this area must be controlled, and all personnel kept from entering the area. Because the safety of all spectators is essential, the aerial demonstration cannot begin, or may possibly be terminated, if non-essential personnel access the area.

(3) Any essential personnel within the aerobatic box during the Thunderbird performance MUST NOT MOVE during the demonstration, to avoid distracting the Thunderbird pilots.

6. BRIEFING ROOMS

a. TEAM BRIEFING ROOM

(1) We will need a room where the team can brief and debrief. The briefing room must be air-conditioned and be large enough to accommodate 15 people with table and chairs in a conference room arrangement, not an auditorium. It must have an electrical outlet, 50-gallon (or similar sized) trash container, and access to restroom facilities. The team does not require audio/visual equipment setup.

(2) The briefing room must have easy access to show center without having to drive through the spectator area. It must have a lockable door, and the room should be available for our exclusive use from the time we arrive until our departure. We also request 12 reserved parking spaces for Thunderbird vehicles close to the briefing room. **Finally, we request bottled drinking water (48 bottles of water per day) be provided in the briefing room for all practice and demonstration days.** This bottled water is in addition to the water provided for maintenance and show center personnel and for the Thunderbird Tent.

b. MEDIA FLIGHT BRIEFING ROOM

(1) We request an additional room located near the team briefing room to brief the media flyers and for our Public Affairs team to work. At a minimum, please arrange two chairs and a small table. Remember, this room may be filmed, so please ensure it reflects the image you desire (ie. organized and clean).

c. AIRCREW FLIGHT EQUIPMENT ROOM

(1) We also request a separate, lockable room in the same area we can use to hold and inspect our flight gear. **We request this room contain empty table space** for pre-flight and post-flight inspections of the flight gear and that it be scheduled exclusively for the Thunderbird team for the duration of our stay.

7. THUNDERBIRD TICKET/TENT ARRANGEMENTS

a. THUNDERBIRD FAMILY/FRIEND TICKETS

(1) We issue 250 Thunderbird family/friend tickets per show day (NOTE: There are certain show sites where we may expect an increased number of guests due to proximity to alumni or team member families and will coordinate for an increased number through our Thunderbird Air Show Events Coordinator). These passes are easily recognizable, and are good only on specific dates. The Air Show Events Coordinator will provide a copy to the show site Project Officer 30 days prior to the show via email. Please disseminate to those directing traffic, parking, gate entry, and VIP area entry. We request the tickets:

i. Preclude any air show entry fee.
ii. Preclude any air show parking fee.
iii. Enable access to your VIP parking area (approximately 50-100 vehicles).
iv. Enable access to the Thunderbird tent.
v. Allow access for Thunderbird guests 10 and under without a ticket when accompanied by a ticketed adult

b. THUNDERBIRD TENT

(1) A majority of our Thunderbird family/friend tickets are released to current Thunderbird team members' families and Thunderbird alumni. As this population includes a wide range of ages from young infants to senior citizens, we request a tent with seating to provide shade from the elements as well as water to ensure guests avoid dehydration. Please adhere to the following in order to ensure the safety of local friends and family members:

i. Area for 250 guests with 150 reserved seats per day near show center.
ii. Canopy or tent to provide guests shade.
iii. Bottled water or refreshments for our guests. (this is in addition to the water requirements for the briefing room and for our maintenance and show center personnel)
iv. Latrine within seating area.
v. Please provide someone to check tickets at tent entrance to preclude non-ticket holders from entering.
vi. A physical break in the fence for Thunderbird team member flight line access.

(2) We request a banner/sign affixed near the tent entrance for easy identification, however, please take care to avoid placing the Thunderbirds' logo/emblem on the same sign as a commercial advertiser.

(3) Be prepared to identify the Thunderbird Tent location on the ramp diagram during the Advance Pilot meeting.

(4) Please understand that the allotted number of guests does not include the 65-70 team members that may utilize the tent and facilities during the air show. This means there may be up to 320 people utilizing the tent during the day.

8. TRAFFIC FLOW

c. Please consider using a separate gate for air show performers and VIPs. Be prepared to pass gate number and/or road names to the Advance Pilot upon arrival.

9. AIRFIELD DIAGRAM

d. Airfield Diagram - Air show organizers must provide the Thunderbird Air Show Events Coordinator with a scale diagram of their airfield/show site NLT 90 days prior your air show.

e. For deployed shows, we must have a diagram of the show site as well as the airfield parking plan from which the aircraft will deploy.

(1) Please contact the Thunderbird Air Show Events Coordinator prior to drawing your diagram. We may have previously flown a show at your site and have information that could help you determine the best location for your crowd line, show center, bomb burst cross point, etc.

(2) Detailed instructions for locating these areas and sample diagrams are in Attachments 5, 6, and 7.

(3) As a minimum, your airfield diagram should depict:

i. The complete aerobatic box from 6,000 feet right of show center to 6,000 feet left of show center, and 1,500 feet on either side of the show line (1,200 feet on secondary crowd line if waived by FAA). (See Attachment 5.)

ii. The show line, the entire crowd area (with distance to show line), and any secondary crowd locations.

iii. Show center and bomb burst markers with geographic coordinates in degree-minute-decimal-minutes format (DD MM.MMM) and elevations in feet. Also, include the distance (in feet) between the markers. The bomb burst coordinates MUST be a minimum of 500' to the right of the crowd line (see section 3 of this chapter for additional guidance.)

iv. Parking locations for show parking, spare F-16, and support aircraft parking locations.

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

vi. Support hangar and briefing room locations, with access routes to show center and the support aircraft.

vii. VIP and Thunderbird family/friends seating.

(4) For military sites, we recommend using a map that depicts building numbers or a Disaster Preparedness grid map (with the same information listed above). Please include an 8½ X 11-inch copy of the completed airfield diagram.

(5) For civilian sites, your Airport Manager should have a diagram of the airfield. The diagram should cover the entire airfield. Ensure the diagram's scale is clearly depicted. Please include an 8½ X 11-inch copy of the completed diagram.

(6) Accuracy in this planning phase with particular emphasis on placement of the show center and bomb burst markers enables us to fly our maneuvers safely and with precision.

AIRFIELD SETUP CHECKLIST

Have you:	YES	NO
1. Established a visible show line 1,500 feet from the crowd? (1,200 with FAA waiver)	[ ]	[ ]
2. Located show center near the middle of the crowd line (if possible) and complied with crowd area dimensions listed in paragraph 5d?	[ ]	[ ]
3. Located the bomb burst cross point on the show line, at least 500 feet off the right end of the crowd line?	[ ]	[ ]
4. Mailed airfield diagram to the Thunderbird Air Show Events Coordinator?	[ ]	[ ]
5. Situated the Thunderbird tent at show center?	[ ]	[ ]
7. Parked all static displays to the rear of the crowd line?	[ ]	[ ]
8. Ensured there are no open ropes at the far ends of the crowd line?	[ ]	[ ]
9. Placed the crowd line at least 300 feet from the nose gear of our parked F-16s?	[ ]	[ ]
10. Arranged for two large, distinctive objects/vehicles to mark show center and the bomb burst cross point in place prior to Advance Pilot's arrival with ACCURATE GPS coordinates in DD MM.MMM format?	[ ]	[ ]
11. Arranged for two 35-foot (minimum) boats for markers if your show is over water?	[ ]	[ ]
12. Discussed your parking plan with the Thunderbird Air Show Events Coordinator?	[ ]	[ ]
13. Organized a briefing room with access to requirements?	[ ]	[ ]

Chapter 8
Operations

1. HAZARDS

   a. Please notify the Thunderbird Air Show Events Coordinator of any flying or ground hazards (bodies of water, trash dumps, VFR traffic congestion areas, bird hazard areas, etc.) in the local area that are not readily known to transient aircraft. This information must be provided prior to the arrival of the advance team.

2. UNCONTROLLED AIRFIELD OPERATIONS

   a. If your show site is at an uncontrolled airfield, you MUST arrange for the Airboss to be present and controlling the field for ALL Thunderbird aircraft operations including TBird 8's arrival, TBird 1-7's arrival, all media/hometown hero flights, all practices/demonstrations, and TBird 1-8's departure.

3. RUNWAY BARRIERS

   a. **Regardless of runway length, we require a barrier on site unless there is a runway with arresting gear within 80 NM of the airfield.**

   b. The following are approved arresting gear per the F-16CM-1: BAK-6, BAK-9, BAK-12, BAK-13, BAK-14, BAK-15 NI, MAAS, 44B-2L, BLISS 500S-6, TAGS BLISS 500S-6 Transportable, 44B-3H/SP/WR, MAGS 44B-3H/SP/WR Mobile, RHAG MK-1, RHAG MK-2, PUAG, PAAG, P-IV/BAK-12 Portable, Aerazur Textile Braking System, MA-1A Modified, MA-1A/E-5, MA-1A/BAK-9, MA-1A/BAK-12, SAFE-BAR, 61QSII, 61QSIIM, MIK-6, ARZ-30/40, BEFAB 21:2/MK VI-I, BEFAB 6:3/MK VI-I, MK-12A, RAF TYPE A, RAF TYPE BB.

   c. If your runway is less than 7,000 feet, we always require pre-certified arresting gear in-place on-site.

   d. If required, obtaining arresting gear is a safety requirement that is your responsibility. Instructions for requesting arresting gear are contained in AFI 32-1043. Included in the AFI is information concerning funding responsibilities.

   e. Reference Attachment 22- Memorandum of Agreement to help attain your arresting gear system if required.

   f. Show sites should coordinate with local FAA and airport management, as certain types of temporary arresting gear may affect civil and commercial operations.

   g. If installing a runway barrier we request it be positioned 1,500 feet from the departure end of the primary runway (dependent upon prevailing winds). Arresting gear may be activated from the tower or manually positioned. If manually positioned, it must be in place before all Thunderbird arrivals, practices and demonstrations. To avoid potential damage to our aircraft we require another aircraft certify the barrier. <u>If significant time is required for setup, please build that into your air show schedule timeline so as not to interfere with a 1500 local time ground show and 1530 local time takeoff.</u>

4. WEIGHT-BEARING WAIVER

a. A weight-bearing waiver is required when your airfield weight bearing for a twin tandem is less than 415,000 lbs. (C-17). This is the minimum weight for our support aircraft. If you are in doubt, please contact the Thunderbird Air Show Events Coordinator.

5. RUNWAY/TAXIWAY SWEEPERS

a. The parking area and all taxiways and runways we use must be absolutely free of foreign objects that could damage our aircraft engines. Due to the vacuum effect of the F-16 engine, especially significant during formation takeoffs and landings, it is mandatory that all surfaces (runways, taxiways, and ramps) be thoroughly swept prior to the arrival of the Advance Pilot, and are periodically swept throughout our stay.
   (1) If your airport maintenance facilities do not possess a vacuum sweeper, it will be necessary to make arrangements to obtain one.
   (2) If a brush-style sweeper is used, ensure the bristles are not made of steel, and that thorough foreign object damage (FOD) checks are accomplished after its use.
   (3) Please restrict helicopters and Harriers from hovering over taxiways, ramps, and runways intended for our use, unless you have a plan for cleaning up the area afterward. It is absolutely essential that hovering not be performed over or near our parked aircraft.
   (4) If pyrotechnics are going to be used anytime during the air show, ensure they are detonated far enough away to prevent blowing foreign objects onto our aircraft or the runways and taxiways intended for use by the F-16s. We require a complete FOD sweep of the airfield following any pyrotechnic or firework display. For safety purposes, we cannot permit pyrotechnic performances closer than 500 feet from our parked aircraft.

6. THUNDERBIRD 1-7 ARRIVAL

a. Arrival Times – Thunderbirds 1-7 will arrive in the local traffic pattern at the scheduled time on the itinerary. The seven-ship formation will circle the airfield for approximately 1 hour. See Chapter 10 for information on the required CFR waivers and Temporary Flight Restriction for our arrival.

b. Communications - The Thunderbird Advance Pilot will establish contact with the Thunderbird Commander/Leader approximately 10-15 minutes prior to arrival of the F-16s on a discrete frequency. The Advance Pilot will then coordinate with the tower or air boss via phone call or VHF (typically Tower's local control frequency) to take control of ground and airspace 5 minutes prior to arrival and will hand control back after the Thunderbird aircraft have landed and taxied back to chocks.

c. Landing – Upon arrival, the Thunderbirds may perform a "Thunderbird Pitch". This consists of proceeding inbound at 300 feet over the approach end of the runway. At mid-field each aircraft pitches up to downwind.

7. THUNDERBIRD AIRSPACE USE DURING AEROBATIC FLIGHT

a. The Thunderbirds require a TFR from the surface up to 15,000 feet AGL within a 5 NM radius of the show center coordinate for all practices and demonstrations. The airspace should also be waivered as described in Chapter 10.

b. Thunderbird aerobatic maneuvers begin and end a maximum of 6,000 feet (1 NM) left and right of show center. After each maneuver, a clearing turn to the left or right begins, followed by a climb and repositioning turn that may extend all the way out to 5 NM from show center.

   The Diamond and Solos normally enter the run-in corridor wings-level at a point 12,000 feet (2 NM) from show center and at an altitude of 200-500 feet AGL. They proceed inbound to 6,000 feet while descending to 100-400 feet before actually starting the aerobatic maneuver. This "run-in", or approach to the maneuver, is required in order to properly stabilize the aircraft, and is absolutely essential to consistently perform safe and precise maneuvers.

8. AIR SHOW COMMUNICATIONS

a. During the demonstration, our Operations Officer, call sign "Thunderbird 7," will be in continuous contact with our aircraft and your tower through our radio communication specialist, call sign "Thunderbird Control," using radios in our communications trailer.
   (1) Control of the airfield will be requested, and is highly desired prior to the F-16s taxiing. The tower must relinquish control before the Thunderbird aircraft will takeoff for the demonstration.
   (2) We fully recognize that emergency situations must take priority over aerial demonstrations, but positive transfer of control of the field must be accomplished and acknowledged by both parties to prevent further safety complications. If the tower needs to regain control of the airfield due to an emergency, it may do so only after coordination with our Operations Officer or Thunderbird Control, allowing time to halt the demonstration and advise the aircraft that the tower has control of the field. After the emergency situation has been resolved, our demonstration will not resume until we regain control of the airfield.
   (3) Thunderbird Control monitors "Guard" frequency (243.0).

9. POST SHOW PROCEDURES/AUTOGRAPHS

a. Once the Thunderbird aerial demonstration has ended and all post-performance narration ceased, the Thunderbirds will usually be available for autographs for approximately 30 minutes (during inclement weather we will move to the back-up location). Normally, the Thunderbirds will come forward to the crowd line; however, to prevent undue distraction or detracting from another performer, the Thunderbirds will not sign autographs if there are any other acts performing after the Thunderbird demonstration. This includes narrated fly-bys.

b. Coordinate with local Security Forces or Law Enforcement to allow a full 30 minutes following the completion of the Thunderbird performance for autographs prior to clearing the airfield of non-air show personnel. If, based on safety or risk mitigation it is determined that Thunderbird autographs need to be terminated prior to the scheduled 30 minutes, please have the Thunderbird Project Officer or any Security Forces/Law Enforcement representative notify Thunderbird Public Affairs immediately to allow Thunderbird personnel to leave the autograph line prior to evacuating the flight line. This allows a smooth, safe flow of both air show patrons and performers.

c. Please do not begin cleaning up or tearing down concessions during our autograph session. This often leads to handling of our equipment by individuals who are not familiar with it, and could result in serious damage to our sensitive communication system.

d. Please provide a back-up autograph location in case of inclement weather, which can include extreme summer heat. A minimum of 4 tables and 12 chairs need to be available on stand-by at the back-up location. Contact Thunderbird PA office for follow-on questions.

e. Deployed Shows – Normally, our demonstration pilots will not return to the deployed show location for autographs. Our show center personnel may be available for autographs with proper coordination. Please work out the details with our Thunderbird Air Show Events Coordinator.

10. GROUND RESCUE PROCEDURES

a. Emergency Vehicles - Our F-16s have standard F-16 rescue features. You must have all crash equipment in place1 hour prior to takeoff in positions that are inconspicuous. These vehicles should be located outside the crowd line with immediate access to the show line. We request that all emergency vehicle flashing lights/rotating beacons be turned off during our practice/demonstration to prevent pilot distraction.

   Egress Training - Egress training with the Thunderbird Egress Technician will be scheduled for fire and rescue crews after the arrival of the support C-17/Thunderbird personnel and F-16 aircraft. Due to scheduling conflicts, we can only provide training for a single shift. Please have a Fire Department representative at the Advance Pilot's Meeting.

11. THUNDERBIRD TIMING

a. The Thunderbird portion of your air show, ground and flying, lasts 1 hour and 15 minutes (1:15). It is imperative that no other events be scheduled during this time, and that the Thunderbird Narrator has full control of the microphone and public address system.
   (1) The first portion of our show can begin with the enlistment of new recruits or the re-enlistment of base personnel. Following the ceremony is our precision launch and taxi for takeoff.
   (2) Our takeoff is approximately 30 minutes after the Thunderbird Narrator takes control of the microphone. Do not confuse the beginning of our show (ground ceremony) with our takeoff time (wheels up).
   (3) The actual flying portion is 35-45 minutes long depending on show type.
   (4) Do not schedule acts or events during the 30 minutes after scheduled landing for autographs.
   (5) Scheduled takeoff time must be more than 2 hours prior to official sunset.
   (6) See Chapter 10 for FAA waiver/TFR times.

12. MEDIA FLIGHT AIRSPACE

a. Please make arrangements to reserve OVER LAND airspace for potential media flights during two periods for a normal two-day show schedule.
   (1) Arrival day 2.5 hours after the arrival of the F-16s
   (2) Practice day from 1030-1200L.
   (3) Confirm times for media flights with the Thunderbird Air Show Events Coordinator prior to scheduling the airspace with the controlling agency.

b. Our preferred airspace is a military operating area (MOA) or restricted area large enough for aerobatic flight in a high-performance fighter. The airspace should be at least 10 NM x 10 NM in size, and from 1,000 feet AGL to 18,000 feet MSL scheduled for 2 hours. The area MUST be over land, and should be no further than 60 NM away from the field if possible.

c. Please coordinate with the owning agency of the MOA (usually military base operations) to schedule the MOA or restricted area. Additionally, if available, request a copy of the flying squadron in-flight guide page for the applicable MOA or restricted area.

13. GENERAL INFORMATION

a. We will not exceed the speed of sound during our demonstration.

b. With the exception of the U.S. Army Golden Knights, the U.S. Navy Leap Frogs, and the Air Force Academy Wings of Blue, all landing zones for parachutist demonstrations must be at least 300 feet from our aircraft.

c. Please do not allow concessions at your air show to sell helium-filled balloons; they are a threat to safe-flying operations.

d. 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.

e. If radio-controlled model aircraft will operate during your show, they must not come within 300 feet of our aircraft parking location, laterally or vertically. Radio-controlled aircraft must not be operated during our arrival, practice, or demonstration.

14. END OF RUNWAY CHECKS

a. Thunderbird maintenance personnel will perform an end-of-runway (EOR) inspection of the F-16s prior to each launch. This involves one or more vehicles following the F-16 to the end of the runway and checking the aircraft just prior to takeoff. We normally follow the taxiing aircraft to the hold short area.

15. LOCAL AIRPORTS

a. 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. Additionally, contact all airports outside a 5 NM ring whose approach or departure corridors would infringe upon the sanitized 5 NM ring.

OPERATIONS CHECKLIST

Have you:	YES	NO
1. Informed the Thunderbird Air Show Events Coordinator of any hazards in the local area?	[ ]	[ ]
2. Planned to pre-position and certify manual barriers?	[ ]	[ ]
3. Checked the weight-bearing capability of the parking area? (Adequate for both our support aircraft and F-16s?)	[ ]	[ ]
4. Requested a weight-bearing waiver if the ramp, runway, or taxiways cannot support the weight of our aircraft?	[ ]	[ ]
5. Ensured the ramp, runway, and taxiways are free of FOD?	[ ]	[ ]
6. Ensured tower personnel understand the Advance Pilot controls airfield during arrival maneuvers?	[ ]	[ ]
7. Briefed tower personnel that the Operations Officer takes control of the airfield during our demonstration?	[ ]	[ ]
8. Allowed 1 hour and 15 minutes for our demonstration and practice?	[ ]	[ ]
9. Briefed the crash rescue team on required procedures?	[ ]	[ ]
10. Briefed tower personnel on our EOR/runway procedures?	[ ]	[ ]
11. Contacted all airports within a 5 NM radius to ensure they are shutdown during the FAA waiver periods to include those outside 5 NM whose approach/departure infringe upon 5 NM ring?	[ ]	[ ]
12. Scheduled overland Special Use Airspace for all media flights?	[ ]	[ ]

Chapter 9
Advance Pilot Meeting

1. ADVANCE PILOT/CREW CHIEF ARRIVAL

   a. The Advance Pilot and Crew Chief will normally arrive at your show site 1 day before the rest of the team. The show center marker and the bomb burst marker must be in place prior to their arrival.

   b. Please inform the ATC controlling agency that Thunderbird 8 will survey the entire airfield upon arrival. This will consist of several passes down the runway and/or show line at low altitude, as well as low altitude passes perpendicular to the runway or show line. The arrival survey is to check the accuracy of the placement of the show center and bomb burst markers, as well as any obstructions within 5 miles of the show center. Due to the low altitude survey requirement, ensure the FAA waiver includes Thunderbird #8's arrival and survey times.

   c. Landing - Thunderbird 8 will conduct a "Thunderbird Pitch" prior to landing. Expect the approach at a minimum of 300 feet over the approach end of the runway. At mid-field the aircraft pitches up to downwind.

   d. After landing, the Advance Pilot will taxi to the assigned parking area and should be marshaled into the parking area. Please ensure the taxi route has been FOD swept and **an F-16 ladder/maintenance stand** is available.

   e. Please have one sedan and a mini-van from the vehicle request for the Advance Pilot and Crew Chief near the aircraft for their use. After securing the aircraft, they will grab food (their own expense) and then will complete essential details, to include:
      (1) Inspecting and painting the F-16 parking area. Please have a can of red and a can of white spray paint available.
      (2) Verifying the location of the show markers.
      (3) Examining the briefing room and maintenance hangar.
      (4) Inventorying and inspecting the maintenance equipment and vehicles.

2. ADVANCE PILOT'S MEETING

   a. Timing - The Advance Pilot's Meeting is crucial to the success of your air show. It will begin 1 hour after the landing of the Advance Pilot and will involve reviewing the itinerary and ensuring all coordination is complete and correct. The Advance Pilot's Meeting must start on time. It is imperative that the following individuals be present at the meeting:
      (1) Air Show Director
      (2) Thunderbird Project Officer
      (3) Transportation Representative
      (4) Maintenance Representative
      (5) Ground Communications / Public Address Specialist
      (6) Public Affairs Representative
      (7) Recruiter
      (8) Security Representative and/or local police
      (9) Fire Department Representative
      (10) Base Operations Representative
      (11) Air Traffic Control Representative
      (12) FAA Representative

b. Agenda – At the Advance Pilot meeting, the Thunderbird Project Officer should provide copies of the final Thunderbird itinerary, as received from the Thunderbird Air Show Events Coordinator, to the above listed individuals. The Advance Pilot will discuss the following as a minimum:
   (1) Thunderbird schedule, line-by-line
   (2) Vehicle and transportation issues
   (3) Maintenance issues
   (4) Security issues, including aircraft security and police escorts
   (5) Disaster response plan with Fire Department
   (6) Public Affairs commitments and plans
   (7) Recruiting opportunities
   (8) Public address system requirements and tie-ins
   (9) Airfield and airspace operations—Please have a map depicting the aerobatic box and a map depicting ground setup available
   (10) FAA Waiver—If desired by the FAA, the Advance Pilot can sign the waiver for the weekend; otherwise a Thunderbird representative will sign the waiver at the FAA meeting on the practice day

c. In order to ensure ease of discussion between the advance pilot and the meeting attendees, please have a large scale printout of the air show ramp diagram and the aerobatic box available during the meeting. The Thunderbirds will not need to keep a copy of these diagrams.

d. It is recommended that the Thunderbird Project Officer have the following information available:
   (1) Best entry for flight line access
   (2) Vehicle access to jet parking
   (3) Vehicle access to our communications trailer on show days
   (4) Gate closures and performer gate availability (if applicable)
   (5) Door/gate codes for access to facilities we'll be using
   (6) Parking location for Thunderbird vehicles near maintenance hangar and operations facilities
   (7) Parking location for Thunderbird VIPs with tickets
   (8) Any special access routes we'll be required to use
   (9) Miscellaneous information we need to know about the airfield/facilities/local area/etc.

ADVANCE PILOT MEETING CHECKLIST

Have you:	YES	NO
1. Included Thunderbird 8's arrival and survey time in the FAA waiver?	[ ]	[ ]
2. Ensured the show markers and maintenance equipment are in place prior to the Advance Pilot's arrival?	[ ]	[ ]
3. Obtained the required vehicles and a ladder for deplaning?	[ ]	[ ]
4. Notified key personnel of the time of the Advance Pilot's Meeting and printed required copies of the Thunderbird itinerary?	[ ]	[ ]
5. Arranged for a suitable briefing room/hangar space/F-16 parking space?	[ ]	[ ]

Chapter 10
FAA Waivers/TFR/NOTAMS

1. FAA WAIVERS

   a. General Information:
      (1) A waiver from the Federal Aviation Administration is required for the Advance Pilot's arrival, Thunderbirds 1-7's arrival, practice(s), and demonstration(s).
      (2) You may submit all waiver requests on the same FAA Form 7711-2, Application for Certificate of Waiver or Authorization. Sample waivers are in Attachments 9 and 10. You should initiate the waiver as early as possible. Please have your air boss or designated representative **send us your DRAFT Waiver Request no later than 45 days prior to your show**. We will review it for accuracy and return it for submittal.
      (3) Do not issue your request for waiver to the "Thunderbirds." Please name a representative of your organization in the "issued to" block.
      (4) If the FAA representative determines congested areas around the show site will be a problem for maneuver run-in, contact the Thunderbird Air Show Events Coordinator as soon as possible so the Thunderbirds can assist in obtaining the necessary waivers.
      (5) Please ask the FAA to send a copy of the approved waiver directly to the Thunderbird Air Show Events Coordinator, to arrive at least 30 days prior to your show. This will enable us to ensure times are correct and that all special provisions can be met. We cannot perform any aerobatics without an approved FAA waiver.
      (6) We normally do not perform any aerobatics during our arrival survey. On the rare occasion that the Thunderbirds will perform aerobatic maneuvers on arrival, the Thunderbird Air Show Events Coordinator and the Advance Pilot will coordinate with the show site to ensure the aerobatic box is sanitized and all appropriate safety precautions are taken, but the waiver must be in place with appropriate CFRs waived IAW this chapter.
      (7) If desired by the FAA, the Advance Pilot can sign the FAA waiver during the Advance Pilot Meeting.

   b. We require the following CFRs waived for our arrival maneuvers, all practices, and all demonstrations:
      (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 in Class D airspace (where appropriate)
      (7) 91.130 – Operations in Class C airspace (where appropriate)
      (8) 91.131 – Operations in Class B airspace (where appropriate)
      (9) 91.155 - Minimum VFR cloud clearances
      (10) 91.303 - Definition of aerobatic flight
      (11) 91.303 (c) - Within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport
      (12) 91.303 (d) – Aerobatic flight within 4 NM of the centerline of any Federal airway
      (13) 91.303 (e) - Aerobatic flight below an altitude of 1,500 feet above the surface

Note: For the Advance Pilot's arrival we only require CFRs 91.117 (a) and (b), and 91.119 (b) and (c) to be waived. No TFR is required and the airfield does not need to be NOTAM closed, but traffic priority is requested to accomplish the aerial survey.

c. The CFR waivers must be valid for the following times as a minimum, **additional time is requested if available** to provide maximum flexibility for possible maintenance problems or weather conditions:
   (1) Advance Pilot arrival: 15 minutes prior to, and 45 minutes after the Advance Pilot's scheduled arrival time.
   (2) Thunderbirds 1-7's arrival practice (primary): 10 minutes prior to, and 80 minutes after the scheduled arrival time (total of 90 minute period).
   (3) Thunderbirds 1/5/6 backup survey: If weather/maintenance/etc precludes accomplishing an arrival survey during 1-7's arrival, we will require a 60 minute block of time in the morning the following day for a Thunderbird 1/5/6 survey flight. This is a backup plan but must be planned for when coordinating your Waiver and TFR times. Work with the Thunderbirds Air Show Events Coordinator for the required times.
   (4) Practices/Demonstrations: 15 minutes prior to scheduled takeoff and extend for 90 minutes.

2. TEMPORARY FLIGHT RESTRICTION (TFR)

a. TFRs are REQUIRED for Thunderbirds 1-7's arrival, practices, and demonstrations. This needs to be approved as early as possible, at least 30 days prior to your air show, through your local Air Force representative from your appropriate FAA region. An example request letter is provided in Attachment 11. To ensure that the TFR meets all of our requirements, have your air boss send your DRAFT TFR request to the Thunderbirds Air Show Events Coordinator no later than 45 days prior to your show. We will review it for accuracy and return it directly to the Airboss for submittal.
   (1) Required TFR altitudes
      i. Thunderbirds 1-7's Arrival Practice: Surface to 10,000 feet AGL
      ii. Practice/Demonstration: Surface to 15,000 feet AGL
   (2) The required lateral boundary for ALL Thunderbird TFRs (arrival/practice/demonstration) is a **5 NM radius from the Thunderbirds' show center coordinate** unless your CROWD CENTER and SHOW CENTER are not co-located, then we are requesting a **5.5 NM TFR.**
   (3) The TFR must be in effect for the following times as a minimum, additional time is requested if available to provide maximum flexibility for possible maintenance problems or weather conditions:
      i. Thunderbirds 1-7's arrival: 10 minutes prior through 80 minutes after our scheduled arrival time (90 minutes total).
      ii. Thunderbirds 1/5/6 backup survey: If weather/maintenance/etc. precludes accomplishing an arrival survey during 1-7's arrival, we will require a 60 minute block of time in the morning the following day for a Thunderbird 1/5/6 survey flight. This is a backup plan but must be planned for when coordinating your Waiver and TFR times. Work with the Thunderbirds Air Show Events Coordinator for the required times.
      iii. Practice/Demonstrations: 15 minutes prior to scheduled takeoff and extend for 90 minutes at a minimum (total period of 1+30).

3. NOTICES TO AIRMEN (NOTAMS)

a. Your airfield must be closed for the total time issued on the waiver for Thunderbirds 1-7's arrival maneuvers, the practice(s), and all demonstrations. This time includes closure to airlines at commercial or joint-use fields. If you anticipate any conflicts, contact the Thunderbird Air Show Events Coordinator.

b. Ensure a NOTAM is issued at least 48 hours in advance for both arrival and demonstration waivers. It is of the utmost importance to not only provide a NOTAM closing the airfield, but to include the closure requirements for arrival maneuvers, practice, and demonstration.
   (4) Sample NOTAM (for arrival maneuvers, practices, and demonstrations):
   Airspace surface to_____MSL closed within 5 NM of _____
   airfield/TACAN from_____Z to_____Z on_____(date).

c. **Please provide the Thunderbird Air Show Events Coordinator a copy of the TFR request/proposed TFR NOTAM no later than 45 days prior to your show.** This will allow us to check the accuracy of the TFR dimensions, center, etc. to avoid any last minute changes.

FAA WAIVERS/TFR/NOTAMS CHECKLIST

Have you:	YES	NO
1. Coordinated your airfield closing times if civilian airlines operate from your airfield?	[ ]	[ ]
2. Submitted your request for FAA waiver to the local Flight Standard District Office (FSDO) for the arrivals, practices, and demonstrations?	[ ]	[ ]
3. Issued NOTAMs at least 48 hours prior to your air show?	[ ]	[ ]
4. Received the approved FAA waiver?	[ ]	[ ]
5. Verified that the Thunderbird Air Show Events Coordinator has received the approved FAA waiver and a copy of the TFR NOTAM?	[ ]	[ ]
6. Implemented TFRs for the time of our practice and demonstration?	[ ]	[ ]
7. Have a copy of the FAA waiver ready for the Advance Pilots signature at the Advance Pilot meeting?	[ ]	[ ]

Chapter 11
Publicity

1. ADVANCE PUBLICITY AND PUBLIC AFFAIRS MATERIAL

   a. A successful air show begins with an organized Public Affairs plan and publicity campaign. The Thunderbird Public Affairs office and your local Air Force recruiting office are here to get involved and make your air show a world-class event. The Thunderbirds are coming to your event for three main reasons:
      (1) **Recruit** and inspire young Americans to join military service.
      (2) **Retain** the quality force we currently have and remind those who are wearing the uniform just how important their service is to the Air Force and the United States.
      (3) **Inspire** the patrons of your air show by highlighting what's possible when you work together and put your mind to something great.

      With these three goals in mind, below are a few guidelines to follow in order to support Thunderbird media and community relations operations.

2. THUNDERBIRD PUBLIC AFFAIRS/PUBLICITY MATERIAL AVAILABLE

   a. Before beginning your show's publicity campaign, please contact the Thunderbird Public Affairs office at (702) 652-7200/9932. For DSN, our prefix is 682, COMM 702-652.

   b. Publicity material and standard press kit information can be immediately obtained from the Thunderbird website at www.afthunderbirds.com. This website contains fact sheets, the team's history, biographies, individual team member photographs and videos. All images and artwork are public domain, so please feel free to use them in all of your marketing/media products (posters, air show programs, newspaper/magazine advertisements, billboards, fliers, news articles, etc). Advertising space on billboards, TV, radio, newspaper supplements, company or school newspapers, local magazines, Chamber of Commerce newsletters, local restaurant placemats and city transportation are great avenues to help spread the word about your show. Also, please ensure your local media outlets are aware of these resources and encourage them to use it in advertisements, articles, public service announcements, etc. One note of clarification, Thunderbird images/products/graphics/words are to be used in advertising the air show itself, not for advertising commercial products or services (per Title 18 of the U.S. Code, Section 709). For questions, contact the Thunderbirds Public Affairs office.

   c. The Thunderbird Public Affairs office has the ability to generate 30 to 60-second public service announcements (PSAs) in audio and/or video format, which can be tailored to advertise your specific air show. At least 45 days prior to your show, please reach out to your local TV and radio stations and gauge their ability to provide free commercial time for such PSAs.

3. REQUIRED SHOW SITE INFORMATION TO THUNDERBIRD PUBLIC AFFAIRS

a. In an effort to add a personal touch for what we can do in your community, it is ESSENTIAL to provide the following information about your show and your local area. Send the information outlined below to Thunderbird Public Affairs office at Remoshay.Nelson.1@us.af.mil, terri.barriere@us.af.mil, Ned.Johnston@us.af.mil and usafads.pa@us.af.mil no later than 45 days prior to our arrival:
   (1) Official name and theme of your air show
   (2) Air show information which must include the website address, admission costs, parking fees, gate open/closures times, schedule of events, list of other performers, city population, etc.
   (3) Brief history of your city/local area/military base. For civilian show sites, this should include any local military ties.
   (4) Pertinent messages you would like us to help you disseminate.
   (5) Names and biographies of the host commander (military show sites) or Distinguished Visitors the team will meet.

b. Thunderbird Public Affairs requires a crowd count and list of distinguished visitors (general officers and civilian equivalents, and federal politicians) who attended the air show immediately following the Thunderbirds demonstration. We understand this will often be a rough estimate, but need your most accurate crowd count before the team begins the demonstration debrief (approximately 1 hour after the conclusion of the demonstration).

4. MEDIA OPERATIONS

a. Thunderbirds team members are available for telephone interviews prior to our arrival. Please contact Thunderbird Public Affairs and Airshow coordinator Teddy Rux to arrange interviews and get them on the itinerary.

b. Arrival interviews (normally Thursday): The Thunderbird media day is upon the arrival of Thunderbirds 1-7. Send advisories announcing our arrival to local media and ask them to respond if they desire to conduct planeside interviews. Contact the Thunderbirds Air Show Events Coordinator for confirmation of the actual arrival time. Upon arrival of Thunderbirds 1-7, the team will survey the surrounding area within view of the show site at low altitude and high speed. Please, do not advertise or imply survey or arrival maneuvers as an official aerial demonstration.

c. Practice day: Friday morning is another opportune time to use the Thunderbirds to promote your air show. Thunderbird professionals are available for local radio and TV interviews (either at the news stations, via phone or at the air show). Please coordinate any scheduled practice day interviews directly with the Thunderbird Public Affairs office. Media coverage of the practice demonstration is also encouraged. Please know the Thunderbird practice is not an official demonstration and the Thunderbirds retain the option to cancel the practice, if necessary. If you invite the base populace or a large group to attend, please inform them practice demonstrations are subject to change or cancellation.

5. MAKE-A-WISH/SPECIAL NEEDS GROUPS/MEET AND GREETS

a. Practices are an excellent opportunity to host groups that would otherwise have difficulty seeing the Thunderbirds perform (i.e. special needs children's organizations, physically challenged, etc.) In particular, the Thunderbirds would like to extend an invitation to Make-A-Wish chapters or similar children's special-needs groups in your area to attend the practice. With prior arrangements, Make-A-Wish/special-needs guests will have a unique opportunity to meet the officers, take photos and receive autographs after the practice show. Please limit groups to no more than 30 children, so we can give them individualized attention. Provide the Thunderbird Air Show Coordinator with a Public Relations Event Information

Sheet (See Attachment 16) if you plan for Make-A-Wish to attend the practice. We will schedule specific time in our itinerary to meet with these individuals.

b. If you invite special guests, please ensure sure you have appropriate seating near show center, paved ramps for wheelchair parking as required, appropriate signs, parking areas, and facilities. for physically-challenged people. Please consider providing earplugs to further enhance your guests' air show experience.

c. You must provide a designated, covered, limited-access secure area for these groups, as well as water. The Thunderbirds believe it is important to meet with and provide autographs to these individuals separately. Do not invite other guests to take part in this special autograph session for the children. Also ensure you have enough volunteers to ensure a sectioned/cordoned-off area. We do not want an embarrassing situation to detract from the individualized attention intended for your special guests. If separate groups or bystanders intrude on this time, we will be forced to terminate the autograph session for everyone, to include the special-needs guests.

d. If you request a Make-A-Wish event with the team, please do not make arrangements for your guests to arrive more than one hour prior to takeoff. We have found that inviting special-needs children hours prior to the show is tough for smaller children, especially on hot days and precludes their ability to stay and meet the pilots after they land.

6. FALLEN WARRIOR/HERO

a. In an effort to remember those who have made the ultimate sacrifice in defense of our nation or your community, the Thunderbirds will invite the family of a military member killed in action or a first responder killed in the line of duty from your local area to your show. Please make arrangements for VIP parking for up to seven vehicles and access for up to 20 family members. (Note: The Fallen Warrior/Hero program is an internal program administered by the Thunderbirds. The **Thunderbird PA** will select the honorees **90 days** out from your show. We will take your recommendations; however, **do not attempt to solicit additional, alternate or independent honorees once a decision has been made by the Thunderbirds PA**. The team does not have the capacity to honor more than one Fallen Warrior/Hero and needs your help avoiding any awkward or embarrassing situations.)

7. LITHOGRAPHS

a. The Thunderbirds Public Affairs staff will bring lithographs for the following positions:

(1) Official Air Show name
(2) Host Commander*
(3) Command Chief Master Sergeant*
(4) Air show Director
(5) Thunderbird Project Officer
(6) Maintenance Representative
(7) Public Affairs Representative
(8) Local U.S. Air Force Recruiter
(9) Briefing Room Host Unit
(10) Hotel/Billeting
(11) Schools/Hospitals (only those we visit)
(12) Air Traffic Control
(13) Workout Facility

** Military show sites only*

b. In addition, you may request up to 25 additional lithographs to distribute as your airshow director/commander see fit. Please email the number of additional lithographs you want to receive along with the names to be put on the title to the Thunderbirds Air Show Events Coordinator, Teddy Rux, 30 days prior to your air show to afford sufficient preparation time. We realize many people have contributed time and money and it is important to recognize people's contributions however; DO NOT promise personalized lithographs.

PUBLICITY CHECKLIST

Have you:	YES	NO
1. Contacted Thunderbird Public Affairs?	[ ]	[ ]
2. Visited the Thunderbird website for publicity material?	[ ]	[ ]
3. Contacted your local USAF Recruiter to help support your publicity efforts?	[ ]	[ ]
4. Invited the media to cover the team's arrival and the air show?	[ ]	[ ]
5. Invited Make-A-Wish/special-needs guests to attend the team's practice/arrival?	[ ]	[ ]
6. Emailed your lithograph requests to Thunderbird Air Show Events Coordinator 30 days in advance?	[ ]	[ ]
7. Sent the required show site information in Section 3 of this chapter to the Thunderbird Public Affairs Superintendent 30 days in advance?	[ ]	[ ]

Chapter 12
Media Flights

Important Reminder for Show Sites: Turning in the requisite paperwork for a flyer candidate only starts the process of getting them approved to fly with the Thunderbirds. Every candidate's paperwork is sent to the Pentagon for a rigorous background check and Air Force Public Affairs screening and then is sent through multiple Air Force general officers to get the flight approved. The flights are not official until the Pentagon and our chain of command are in agreement, and only a "Congrats from the Thunderbirds!" email from the Thunderbirds Public Affairs team is a sign of selection and approval to fly.

1. MEDIA FLIGHTS

NOTE: Flyers who have previously flown with the Thunderbirds or Blue Angels will be given considerable scrutiny to determine if they are eligible to fly. If nominees are not U.S. citizens, considerable coordination is required in the approval process, which requires a minimum of 60 days.

a. Do not promise a flight to anyone. The Thunderbird Public Affairs office will determine which individuals are approved for a flight. Please keep in mind there is no guarantee the media flight will happen. The flights are based on aircraft availability, weather, and other operational, logistical or medical factors. Thunderbirds Public Affairs will notify approved flyers of their selection to fly with the team once selected and approved.

b. The Thunderbirds Public Affairs office will work with you to determine if your air show will receive media flights, and if so, how many, who will fly, and when. Please discuss media flights early in your planning process with Thunderbird Public Affairs before offering these flights.

c. Flights are normally conducted on the Friday morning after the team arrives. Depending on time of arrival and operational considerations, the Thunderbirds may consider an additional flight on Thursday upon arrival. This is highly unlikely for shows in the Eastern time zone due to operational risk management considerations from lengthy cross-country flights and early morning personnel show times.

d. **The Thunderbirds do not consider local news station, radio, etc. as eligible candidates for a media flight.** Please invite these agencies to our arrival planeside media events. There, they can interview the pilots, receive the sound bites they need and shoot B-roll for their news pieces. They can also find stock B-roll of the team on our website and on www.dvidshub.net/unit/Thunderbirds.

e. The only candidates eligible for media flights are national media (FOX, CBS, NBC, etc.), nationally prominent citizens, or prominent internet/social media influencers who live in the local area of the show site. These flights will garner positive regional/national media attention and help spread positive messaging about the Air Force, the Thunderbirds, and your local air show.

f. Media flights are used to effectively garner positive media attention for the Thunderbirds and US Air Force as well as meet Air Force recruiting objectives and advertise your air show. These flights are not to be used as paybacks for supporters of the air show. For example, do not offer a flight to the mayor, Chamber of Commerce president or business leaders, show sponsors, etc. The team will not fly elected/appointed officials or individuals who could be perceived as influencers of the air show or local/state policy.

g. The show site Public Affairs representative should coordinate through the show site's Thunderbird Project Officer to submit nomination packages, which include at a minimum:
   (1) Written justification(s) (one per submitted candidate). Justifications should state why each individual should receive the flight.
   (2) Information Sheets (one per submitted candidate) [See Attachment 14.2]. Incomplete information or blank areas could cause delays or cancellation of approval process.
   (3) Medical Evaluation Forms (one per submitted candidate) [See Attachment 14] signed by a physician.
   (4) Air Transportation Agreement (one per submitted candidate) [See Attachment 15].

h. Requests for media flights are due no later than 45 days (60 days for non-U.S. citizen), prior to the team's scheduled arrival.

i. The Thunderbirds have installed a GoPro Hero 7 to capture in-cockpit 4K/30FPS video of media, and, if available, Thunderbirds Public Affairs will pull the Digital Video Recorder for the audio between the media flyer and pilot. Audio is not always available. Flyers are expected to bring a 64GB USB-C thumb drive or external hard drive combatable with Mac computers (formatted to exFAT file system) with them to the flight. If they don't bring a hard drive or bring the antiquated USB 2.0 or 3.0 format, flyers will not be able to receive their video and audio that day. File sizes are typically in excess of 30GB, which take hours to transfer over anything other than USB-C.

j. Air Force regulations dictate height, weight, and anthropomorphic measurement standards for media flyers and are strictly enforced. The general limitations are as follows:

   (1) Min/Max weight = 103-245 lbs.
   (2) Max height = 6'5"
   (3) Max waist = 38"
   (4) Age limit = 55 years old

k. Finally, things to keep in mind: All medical briefings, aircrew flight equipment fittings, pilot briefing and additional training will begin no later than three hours prior to the scheduled takeoff time. Arriving late will cancel the flight.

MEDIA FLIGHTS CHECKLIST

Have you:	YES	NO
1. Coordinated with local public affairs for media flier selection and nomination packages?	[ ]	[ ]
2. Obtained all paperwork for the nomination packages?	[ ]	[ ]
3. Submitted nomination packages Thunderbird Public Affairs <u>45 days in advance (60 days for non-U.S. citizen)</u>?	[ ]	[ ]
4. Arranged for a suitable briefing room (different from the team briefing room)?	[ ]	[ ]
5. Scheduled suitable airspace? (Over land MOA or Restricted airspace w/in 60 miles)	[ ]	[ ]
6. Made arrangements to get the media flier onto base/site and to the briefing/Aircrew Flight Equipment room?	[ ]	[ ]
7. Coordinated for the Thunderbirds to appear on TV/radio morning shows for the media flight outlet(s)?	[ ]	[ ]

Chapter 13
Hometown Hero Flights

Important Reminder for Show Sites: Turning in the requisite paperwork for a flyer candidate only starts the process of getting them approved to fly with the Thunderbirds. Every candidate's paperwork is sent to the Pentagon for a rigorous background check and Air Force Public Affairs screening and then is sent through multiple Air Force general officers to get the flight approved. The flights are not official until the Pentagon and our chain of command are in agreement, and only a "Congrats from the Thunderbirds!" email from the Thunderbirds Public Affairs team is a sign of selection and approval to fly.

1. HOMETOWN HERO PROGRAM

   a. In tandem with the Media Flight program, the Thunderbirds host a Hometown Hero Flight program. This program is designed to showcase American citizens doing amazing things in their communities.

   b. Do not promise a flight to anyone. Inform the nominee their flight is pending approval and the flight is subject to cancellation for operational, maintenance, and weather reasons. Thunderbirds Public Affairs will notify approved fliers of their selection to fly with the team once selected and approved.

   c. Heroes might include, but are not limited to:
      - Wounded warriors (pending medical clearance)
      - An average citizen who heroically saved a life
      - A renowned teacher
      - A community humanitarian volunteer
      - A local firefighter, paramedic or police officer
      - One who mentors children or volunteers as a coach or tutor in a youth program
      - Someone who dedicates their life to working with at-risk children

   d. When choosing/evaluating potential Hometown Hero flight candidates, it is critical to use your local media outlets as a sounding board. Any individual submitted to the Thunderbirds as a Hometown Hero candidate should come with a coverage commitment from a local media outlet.

   e. People ineligible for the program include, but are not limited to:
      - Elected and appointed officials
      - Unit honorary commanders
      - Members of the air show's board of directors
      - Air show sponsors

   f. Nomination package procedures are identical to the procedures for media fliers (see Chapter 12), including all medical, height, and weight screening requirements. The timeline for nomination packages are also identical, including the requirement to have names submitted 45 days (60 days for non-U.S. citizen) prior to the Thunderbirds arrival.

Chapter 14
Public Appearances

1. GENERAL

   a. All public appearances must be coordinated with the Thunderbird Public Affairs Office and the Air Show Events Coordinator no later than 30 days prior to our scheduled appearance.

   b. We consider everything we do outside of the aerial demonstration a public appearance. That includes:
      - TV/radio interviews
      - School visits
      - Hospital visits
      - Receptions
      - Air show parties

   c. We prefer to make as much contact as possible with those in our target recruiting demographic (ages 18-35). Please contact local area high schools, vocational schools, junior colleges, summer sport camps, and youth organizations first. The local Active Duty Air Force Recruiting representative will work to schedule 1-2 high school visits if school is in session. These events receive scheduling priority, especially over elementary school visits.

   d. Do not commit us to any additional public relations events without the consent of the Thunderbird Public Affairs and Recruiting liaison.

   e. In order to allow our team members adequate rest to offset the high operations tempo of our show season, only schedule the team for one evening reception event per show site. If more than one event is requested, identify which event you would prefer to be a mandatory, and we will make the other events optional for the team members.

   f. It is imperative that every public appearance be documented on a separate Thunderbird Public Relations Event Information Sheet (See Attachment 16) to include:
      - School visits
      - Hospital visits
      - Receptions
      - Air show parties

   g. The local USAF Recruiter is responsible for planning all high school and/or vocational school visits. We also encourage you to invite them to any other scheduled public appearances. The team has a video to play at school visits. Please arrange for audio/visual equipment to be in place and operational before our scheduled appearance time.

   h. All formal portions of public relations engagements (introductions, speeches, presentations) requiring the team's involvement and/or presence should be FINISHED by 8:00 p.m. This does not necessarily mean the team will leave the event at that time, but is imperative for crew rest based on other commitments.

   i. If scheduling a post-show reception, please remember the team will complete a 30 minute autograph session after the demonstration, a 1½ hour demonstration debrief, and up to 30 minutes for commute before we can be in-attendance (Minimum of 2 ½ hours total from landing).

j. All public relations commitments must be within a maximum of a 30-minute drive time from the briefing room or hotel. Please keep traffic and construction delays in mind when planning your event. If an escort cannot be provided for the event, please ensure the team has accurate directions/maps.

k. Public appearances will not be scheduled on down days to allow our team members adequate rest.

l. While we never solicit presentations or gift exchanges, please let us know if the event host/sponsor or invited guest is making a presentation to the team and what is being presented, so we may reciprocate appropriately.

m. If any formal public presentation is planned for any Thunderbird team member, including our Commander/Leader, an exact itinerary of the event must be provided to Thunderbird Public Affairs at least 24 hours prior to the event. Thunderbird Public Affairs will consider any potential challenges with the schedule of events and work with the Project Officer to make the event run as smoothly as possible.

PUBLIC APPEARANCES CHECKLIST

Have you:	YES	NO
1. Contacted Thunderbirds Public Affairs?	[ ]	[ ]
2. Contacted the Thunderbirds recruiting liaison?	[ ]	[ ]
3. Coordinated all public appearances with the Thunderbird Air Show Events Coordinator?	[ ]	[ ]
4. Completed a Thunderbird Public Relations Event Information Sheet for each public/social commitment?	[ ]	[ ]
5. Ensured commitments are within a 30 minute drive?	[ ]	[ ]
6. Made arrangements for the necessary equipment if Thunderbird DVD is to be shown at local schools?	[ ]	[ ]
7. Ensured our public relations events end by 8 p.m.?	[ ]	[ ]
8. Sent Public Affairs all the required event reception information? (Host, DVs attending, presentations, invited guests)	[ ]	[ ]

Chapter 15
Air Force Recruiting

1. GENERAL

   a. Recruiting is at the heart of the Thunderbird mission. It is essential that air show directors and Thunderbird Project Officers work closely with local recruiter squadron commanders, flight chiefs and community recruiters to get the most out of our visit. If you need assistance contacting your local recruiter, please call the Thunderbird Recruiting office. (Ch.1 Getting Started)

   b. Once contacted, the recruiting service will assign a squadron marketer to act as the recruiting representative at each show site. The recruiting representative will then contact your Air Show Project Manager and Public Affairs representative to coordinate their participation and will attend air show planning committee meetings.

2. RECRUITING SUPPORT

   a. We request you give full support to DoD recruiting efforts. Such support should include, but not necessarily be limited to:
      (1) Coordination with local U.S. Air Force Recruiting personnel and Thunderbirds AFRS representative to schedule placement of recruiting display booth. (If HQ AFRS approve a national asset, then a display space large enough to accommodate the asset is required. This asset will require a minimum of a 60 x 40 foot and a maximum of 100 x 100 foot display space, depending on which asset is available).
      (2) Providing, at no-cost, prime space for the recruiting display booth to maximize foot traffic – this should be set up as close to show center as possible.
      (3) Setting up/coordinating public appearances with support from Recruiting Service personnel. The local active duty recruiter will be responsible for setting up the local high school visits. Schools must be located within 30 minutes of hotel.
      (4) Inviting Recruiting Service to all official functions in which the Thunderbirds participate.
      (5) Arranging for an enlistment ceremony. This will take place on show days, in front of the crowd at show center.

   b. A Thunderbird officer will visit the recruiting booth in the middle of the day to discuss opportunities available in the US Air Force and share their Air Force story. We request your air show narrator brings attention to this event by announcing the name of the officer, time of the event, and location (Air Force recruiting booth, air boss stand, main gate, etc.). The Thunderbird team members will visit the recruiting booth throughout the weekend to talk to kids and parents about Air Force opportunities.

3. RECRUITING SQUADRON RESPONSIBILITIES

   a. Assign a squadron marketer as the main point of contact for the air show.

   b. Ensure a recruiting representative is at EVERY air show planning committee meeting.

   c. Adhere to the planning timeline checklist.

   d. Schedule 1-2 school visits for the Thunderbirds to attend at the show site. School visits are typically done on Fridays from 0900-1000. Exception must be approved by Thunderbird Public Affairs Superintendent. (2 high schools preferred)

e. Follow the guidance set forth in the "Recruiter Guidelines" emailed to each show site recruiting representative.

f. Coordinate with civilian show sites that charge admission to allow recruiters and enlistees into the show for the recruitment ceremony without charge.

NOTE: We do not conduct retirement ceremonies or award readings during our demonstration.

4. ENLISTMENT CEREMONY

a. If you want to conduct an enlistment ceremony with the Thunderbird aircraft in the background at show center, flags and/or honor guards are not required. If inclement weather dictates an indoor ceremony, however, a U.S. flag is required. Please inform the Advance Pilot during the Advance Pilot's Meeting. Enlistees must be in place at the Air Force recruiting booth no later than 2 hours before the Thunderbird ground ceremony begins. Ensure enlistees are in an Air Force T-Shirt provided by the recruiter and blue jeans (no ripped jeans, no shorts, no earrings, no hats, no sunglasses, and no open-toed shoes). At that time, the Thunderbird Recruiter will brief the enlistees on what to do during the ceremony. Provide a back-up location in case of inclement weather. Location must be easily accessible to enlistees and their families.

b. Families of enlistees and media representatives are encouraged to attend the ceremony, but are not allowed to go in front of the crowd line for the ceremony without a Thunderbird escort.

c. The Thunderbird photographer will take digital photos of the ceremony and will post those images on the afthunderbirds.com website or the official Thunderbird Facebook page.

AIR FORCE RECRUITING CHECKLIST

Have you:	YES	NO
1. Contacted the local U.S. Air Force Recruiting Office to ensure recruiting involvement?	[ ]	[ ]
2. Coordinated the location of the recruiting display booth?	[ ]	[ ]
3. Informed your air show narrator of the time, location, and officer′s name for recruiting booth visit event?	[ ]	[ ]
4. Invited Recruiting Service personnel to all official functions?	[ ]	[ ]
5. Arranged for an enlistment ceremony?	[ ]	[ ]
6. Invited media to cover the enlistment ceremony?	[ ]	[ ]
7. Informed the recruiter of the date, time, and location of the Advance Pilot's Meeting?	[ ]	[ ]

Chapter 16
Air Force Retention

1. GENERAL

   a. Today, more than ever, retention of quality Air Force personnel is critical. It is important to get your unit's career assistance advisor and/or command chief master sergeant involved in all Thunderbird retention activities.

   b. The Thunderbirds can impact retention by helping units recognize their people and the work they do. Airmen need to feel good about what they do and must understand how they contribute to the Air Force mission.

2. RETENTION OPTIONS

   a. **Re-Enlistment Ceremony:** If requested, we can conduct a re-enlistment of your base personnel with a ceremony at the No. 1 jet. The re-enlistment ceremony for small groups of people will take place 30 minutes prior to takeoff for the practice show. Those taking part in the ceremony need to meet with the Thunderbird Recruiter no later than 1.5 hours prior to the ceremony at a designated location near show center (this area will be confirmed at the Advance Pilot's Meeting).
      (1) In the event of inclement weather, plan to use an indoor facility with adequate space. Be sure to provide an American flag.
      (2) This ceremony provides an excellent media opportunity, and exhibits immediate recognition for outstanding enlisted personnel who have chosen to continue military service. We encourage you to invite friends, family, and co-workers to attend the ceremony. For a smooth, efficient paperwork flow, give re-enlistment contracts to the Thunderbird recruiter prior to the ceremony. The Thunderbird Project Officer will be given signed contracts Monday morning before the team's departure. Please have them completely filled out and signed by the re-enlistee, except leave the signature block blank

      (Leave Blank)
      USAFADS/ACC
      Nellis AFB, NV 89191-6079

      (3) We recommend you provide a photographer at the event for coverage in the base newspaper, and personal copies for the individuals. The Thunderbirds will take digital images and post on the afthunderbirds.com website or official Thunderbird Facebook page.
      (4) The Thunderbird Commander will sign the re-enlistment papers following the demonstration.
      (5) For deployed shows, coordinate with the Thunderbird Air Show Events Coordinator for the best time and location for the re-enlistment ceremony

AIR FORCE RETENTION CHECK LIST

Have you:	YES	NO
1. Discussed Thunderbird retention activities with your unit's career assistance advisor and/or command chief?	[ ]	[ ]
2. Arranged for a re-enlistment ceremony, if applicable (alternate location for inclement weather)?	[ ]	[ ]

Chapter 17
Post-Show Report

1. GENERAL

   a. Each show site is required to submit a post-show report to Thunderbird Public Affairs. This report will help us evaluate publicity campaign procedures. The initial crowd count must be given to the Public Affairs officer each day immediately following the demonstration; however, the Post-Show Report should arrive at Thunderbird Public Affairs 15 days after your air show. (See Attachment 19)

   b. The Post-Show Report must include:
      (1) The official per day crowd count. Please be as accurate as possible, and if the crowd count differs from what was originally provided immediately after the show, please indicate.
      (2) List of media outlets that interviewed Thunderbird personnel and/or provided air show coverage.
      (3) A media outreach number from every outlet that interviewed Thunderbird personnel and/or provided covered of the air show.
      (4) Critique - Customer satisfaction is very important to the Thunderbirds and the U.S. Air Force, so please critique our operation. We welcome comments and criticism, along with suggestions on how we can improve our overall operation.

POST-SHOW REPORT CHECKLIST

Have you:	YES	NO
1. Received an accurate daily attendance count?	[ ]	[ ]
2. Provided a list of media outlets and outreach numbers from every outlet who interviewed Thunderbird personnel and/or covered the air show?	[ ]	[ ]
3. Critiqued our operation?	[ ]	[ ]

Chapter 18
Timetables

1. SCHEDULE OF EVENTS

   a. The Thunderbird Air Show Events Coordinator will send you a draft of the Thunderbird Itinerary approximately 60 days prior to the show. Review the itinerary and subsequent drafts to ensure accuracy. The itinerary is extremely important. It is the document that drives the schedule for 60+ personnel at your site. Double check scheduled flight times with the air boss for your show. The following timelines are preferred but can be altered with advanced notice. Please work directly with Mr. Teddy Rux and Thunderbird #8 on non-standard timelines. An example of a non-standard timeline would be if the Team is planning on arriving to your location at the beginning of week. This commonly occurs if we are going from one show site direct to another instead of returning to Nellis AFB in between.

   b. Arrival days and times are determined at the beginning of each year. Normally, for a weekend show (Saturday and Sunday), the Advance Pilot and Crew Chief will arrive at your show site on Wednesday (time to be determined); the support aircraft (normally a C-17) will arrive on Thursday (one hour prior to the F-16s), followed by the F-16s. F-16 arrival times are guidelines only, and may vary according to specific needs. General F-16 arrival times are:
      (1) Eastern Time - 4 PM (1600 hrs)
      (2) Central Time - 3 PM (1500 hrs)
      (3) Mountain Time - 1 PM (1300 hrs)
      (4) Pacific Time - 1 PM (1300 hrs)

      NOTE: Circumstances such as weather or maintenance problems and time changes (Daylight Savings Time/Standard Time) may dictate deviation from our pre-determined arrival times. The Thunderbird Air Show Events Coordinator will inform you of our exact arrival time.

   c. Friday rehearsal will be initially scheduled for a 1400L Microphone (Mic) time. We make every attempt to keep a standard time but can be flexible if desired by the show site. Mic time is when we expect to have microphone, air and ground control. Normally, we desire a full show launch on Friday, however, if desired, the airboss/director can coordinate in advance to remove the show launch so that other acts can rehearse up to our takeoff.

   d. Saturday and Sunday performances will include a ground show (if non-deployed) that will normally have a Mic time of 1500L (Thunderbirds own air and ground at this time). This will allow us to perform Enlistment and Ground Ceremonies without interruption 30 minutes prior to takeoff.

Attachments

Attachment 1

THUNDERBIRD PROJECT OFFICER'S CHECKLIST

ITEM	SUSPENSE	DATE ACCOMPLISHED
FAA Waiver Applied for by Site (Atch 10 and 11)	90 days	
Airfield Diagram to USAFADS (Atch 6)	90 days	
Air Show Information Sheet (Atch 2 or 3)	60 days	
Weight-Bearing Waiver (Atch 9)	60 days	
Transportation Status Report	60 days	
Maintenance Status Report	60 days	
Approved FAA waiver and TFR to USAFADS for Review	45 days	
Media Flight Nominations (Atch 14, 15 and 16)	45 days (60 days for Non-U.S. Citizen)	
Public Affairs Publicity/ Show Site Information (Atch 16)	45 days	
Maintenance Shortfalls Report	30 days	
Check Mailed	30 days	
Public Appearance Requests to USAFADS	30 days	
Lithograph Requests to USAFADS (Atch 17)	30 days	
Music Licenses sent to USAFADS	30 days	
USAFADS MX frequencies coordinated	30 days	
Post-Show Report to USAFADS (Atch 20	15 days after	

Attachment 2

MILITARY AIR SHOW INFORMATION SHEET
(Provide to Thunderbird Air Show Events Coordinator 60 days prior to air show date)
AIR SHOW TITLE:
SITE/LOCATION:
AIR SHOW OFFICE PHONE:
AIR SHOW OFFICE FAX::
SHOW DATE AND PROPOSED TAKEOFF TIME:
PREVIOUS THUNDERBIRD SHOW DATE: CROWD COUNT:
BASE DSN PREFIX:
(NOTE: ANNOTATE IF DSN NUMBER IS NOT THE BASE DSN PREFIX FOLLOWED BY COMMERICAL LAST FOUR)

BASE OPERATOR
COMM:

COMMAND POST
COMM:

BASE OPERATIONS
COMM:

WG/CC NAME:
COMM:

GP/CC NAME:
COMM:

COMMAND CMSgt:
COMM:

AIR SHOW DIR:
COMM:

T-BIRD PROJO:
COMM:
CELL:
E-MAIL:

MAINT REP:
COMM:
CELL:
E-MAIL:

PA REP:
COMM:
CELL:
E-MAIL:

SECURITY REP:
COMM:
CELL:
E-MAIL:

HOUSING REP:
COMM:
CELL:
E-MAIL:

TRANS REP:
COMM:
CELL:
E-MAIL:

POLICE ESCORT REP NAME / UNIT:
COMM:
CELL:
E-MAIL:

BRIEFING ROOM UNIT:
COMM:
CC NAME:
HOST UNIT ADDRESS:

LOCAL USAF RECRUITER NAME:
PHONE:
CELL:
E-MAIL:

Attachment 3

CIVILIAN AIR SHOW INFORMATION SHEET
(Provide to Thunderbird Air Show Events Coordinator 60 days prior to air show date)

AIR SHOW TITLE:

SITE/LOCATION:
AIR SHOW OFFICE PHONE:
AIR SHOW OFFICE FAX:
SHOW DATE AND PROPOSED TAKEOFF TIME:
PREVIOUS THUNDERBIRD SHOW DATE: CROWD COUNT:

AIR SHOW DIR:
COMM:
CELL:
E-MAIL:

AIRBOSS:
COMM:
CELL
E-MAIL:

T-BIRD PROJO:
COMM:
CELL:
E-MAIL:

MAINT REP:
COMM:
CELL:
E-MAIL:

PA REP:
COMM:
CELL:
E-MAIL:

SECURITY REP:
COMM:
CELL:
E-MAIL:

HOUSING REP:
COMM:
CELL:
E-MAIL:

TRANS REP:
COMM:
CELL:
E-MAIL:

MEDICAL REP:
COMM:
CELL:

NAME OF MEDICAL FACILITY:

POLICE ESCORT REP NAME / UNIT:
COMM:
CELL:
E-MAIL:

BRIEFING ROOM LOCATION:

COMM:
ADDRESS:

LOCAL USAF RECRUITER NAME:
PHONE:
CELL:
E-MAIL:

Attachment 3-1

TRANSIENT ALERT:

WEATHER:

AIR SHOW CONTROL:

MOC:

AIR SHOW WEB SITE:

(NOTE: Please include full name (Nickname or preferred name in parentheses) of all individuals listed above, and verify all telephone numbers. Notify us immediately when changes occur.)

Attachment 4

SAMPLE SAT/SUN AIR SCHEDULE OF EVENTS -

CASPER, WY

1100 - Gates Open

1230 - Support Aircraft Lands

1245 - Flag Ceremony

1300 - Casper Skydivers Jump

1325 - Northern Knights (2 Pitt Specials - Acrobatic Demo)

1330 - Samson (Pitt - Solo Acrobatic Demo)

1355 - Pioneer Arrives

1356 - Jim Good (Great Lakes B-Winged Solo Acrobatic Act)

1408 - Frontier Arrives

1409 - Big Sky Arrives

1410 - Pioneer Departs

1411 - Northern Knights (Solo Act)

1423 - Frontier Departs

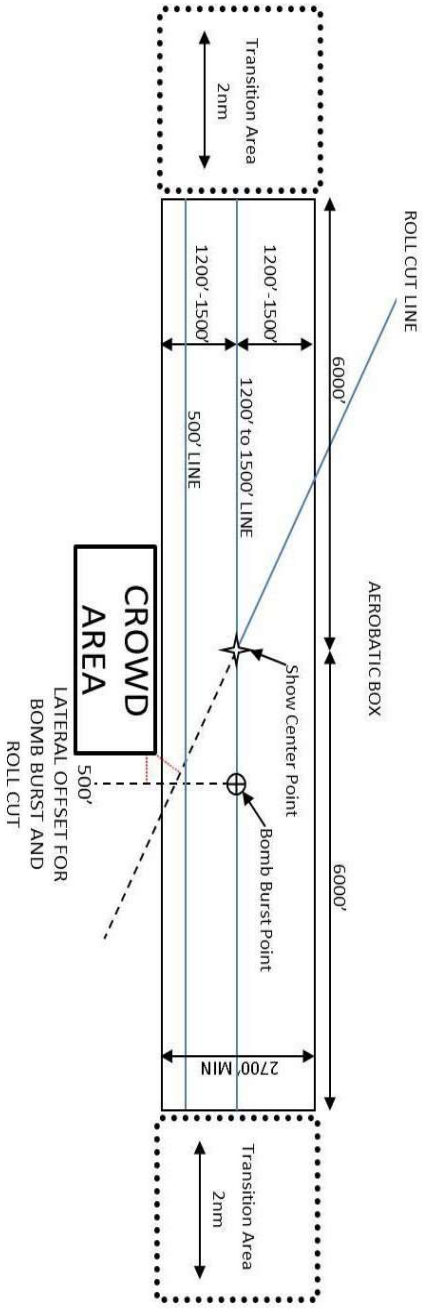
1424 - Big Sky Departs

1500 - Thunderbird Ground Ceremony (Give Ground and Airspace to Thunderbird Control)

1530 - Thunderbirds Takeoff, fly and autograph session

1700 - Gates Close

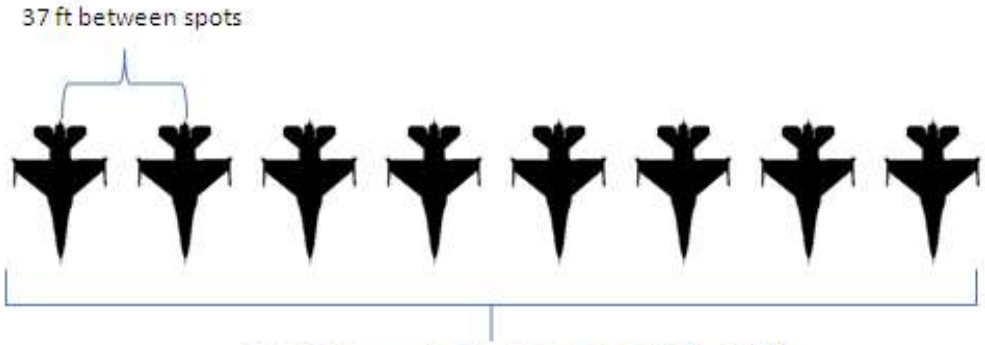
Attachment 5



Attachment 6

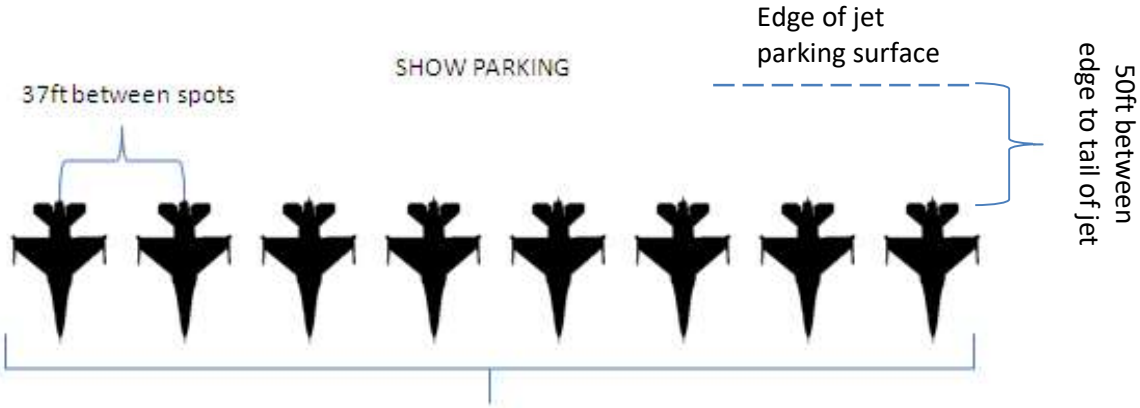
Thunderbird Parking Diagram

ARRIVAL AND SHUTDOWN PARKING



Total Distance wing tip #1 to wing tip #8 is 291 ft
Require 225ft from nose tire to crowd line.

SHOW PARKING

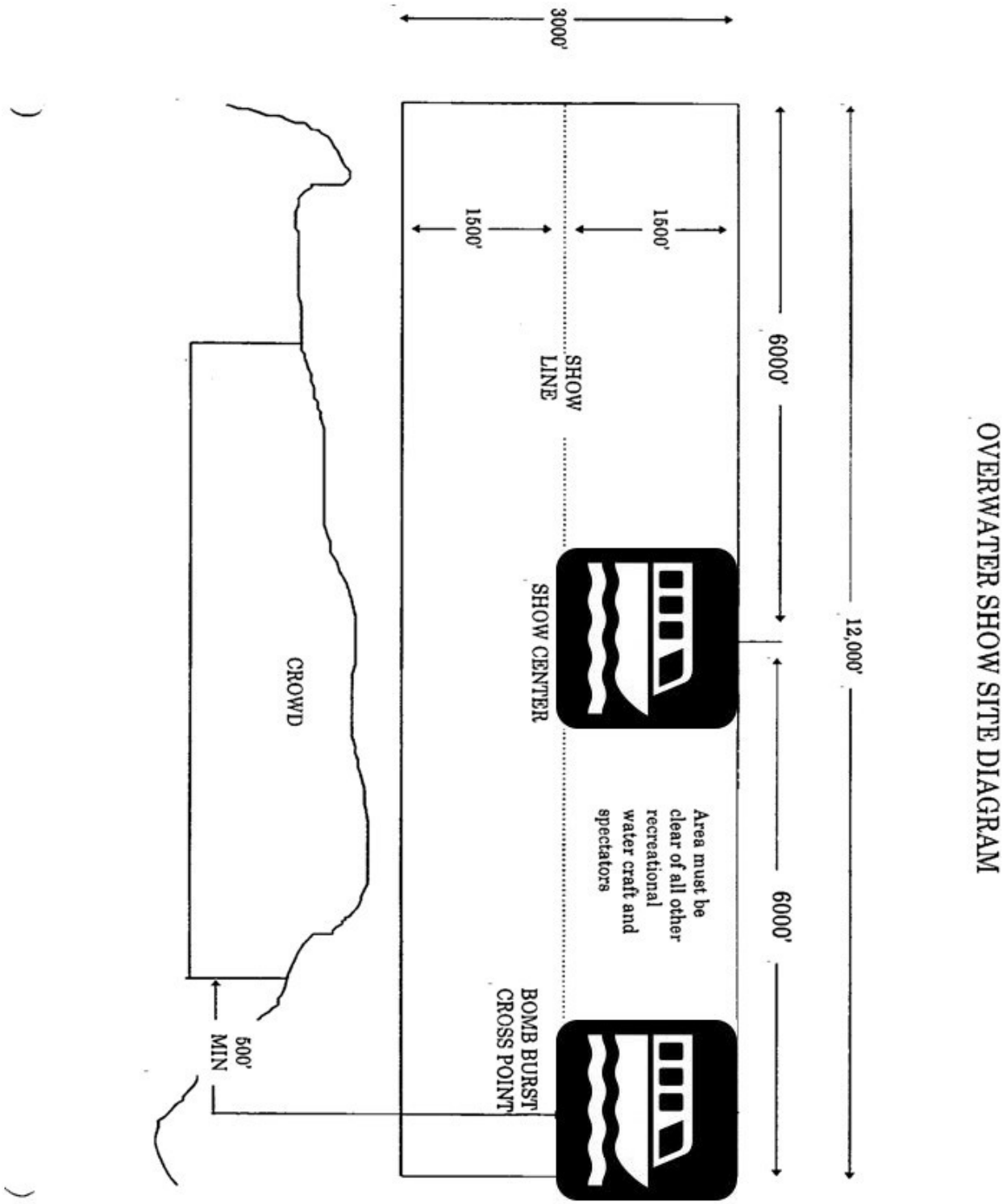


Total Distance wing tip #1 to wing tip #8 is 291 ft
Require 300ft from nose tire to crowd line.

C-17	C-130
Length 174 ft	Length 98 ft
Span 170 ft	Span 133 ft
Weight 585,000lbs	Weight 160,000lbs

Attachment 7

Attachment 7



Attachment 8

WEIGHT BEARING WAIVER
(Provide to Thunderbird Air Show Coordinator 60 days prior to air show date)

FROM: (Your Organization)

SUBJECT: Airfield Weight Waiver

TO: USAF Thunderbirds
4445 Tyndall Ave
Nellis AFB, NV, 89891-6079
ATTN: Air Show Coordinator

(Signed by the Airfield Manager)

NOTE: If any specific areas are to be avoided, please indicate areas on one airfield diagram and forward with the waiver.

SAMPLE WAIVER FOR ARRIVAL MANEUVERS

Attachment 9

No certificate may be issued unless a completed application form has been received (14 C.F.R. 91, 101, and 105)

U.S. Department of Transportation **Federal Aviation Administration** **APPLICATION FOR CERTIFICATE OF WAIVER OR AUTHORIZATION**	*Form Approved: O.M.B. No. 2120-0027* **APPLICANTS – DO NOT USE THESE SPACES** Region / Date Action ☐ Approved ☐ Disapproved – ***Explain under "Remarks"*** Signature of authorized FAA representative

INSTRUCTIONS

Submit this application in triplicate (3) to any FAA Flight Standards District Office. Applicants requesting a Certificate of Waiver or Authorization for an aviation event must complete all the applicable items on this form and attach a properly marked 7.5 series Topographical Quadrangle Map(s), published by the U.S. Geological Survey (scale 1:24,000), of the proposed operating area. The map(s) must include scale depictions of the flight lines, show lines, race courses, and the location of the air event control point, Police dispatch, ambulance, and fire fighting equipment. The applicant may also wish to submit photographs and scale diagrams as supplemental material to assist in the FAA's evaluation of a particular site. Application for a Certificate of Waiver or Authorization must be submitted 45 days prior to the requested date of the event. Applicants requesting a Certificate of Waiver or Authorization for activities other than an aviation event will complete items 1 through 8 only and the certification, item 15, on the reverse.

1. Name of organization	2. Name of responsible person
343rd Fighter Wing	Jon J. Doe, Capt., USAF

3. Permanent mailing address	Home number and street or route number	City	State and Zip Code	Telephone No.
	1234 Main Street	Anywhere AFB	IA 12345-6789	(555) 123-4567

4. FAR section and number to be waived

91.117 (a) (b), 91.119 (b) (c), 91.127, 91.129, 91.130, 91.131, 91.155, 91.303 (c) (d) (e)

5. Detailed description of proposed operation (Attach supplement if needed)

Aerial/aerobatic maneuvers by the USAFADS "Thunderbirds" at Anywhere AFB within the area defined as radius of five (5) nautical miles from show center (60°40.780N, 147°06.690W), from the surface up to 10,000 feet AGL.

6. Area of operation (Location, altitudes, etc.)

Five (5) nautical miles from show center (60°40.780N, 147°06.690W), surface to 10,000 feet AGL.

7a. Beginning (Date and hour)	7b. Ending (Date and hour)
26 July 2001 1450L (2150Z)	26 July 2001 1620L (2320Z)

8. Aircraft make and model (a)	Pilot's Name (a)	Certificate number and rating (c)	Home address (Street, City, State) (d)
6/F-16C			Nellis AFB, NV

FAA Form 7711-2 (6-86) Supersedes Previous Edition

Attachment 10

SAMPLE WAIVER FOR BACKUP SURVEY & ARRIVAL MANEUVERS

No certificate may be issued unless a completed application form has been received (14 C.F.R. 91, 101, and 105)

U.S. Department of Transportation **Federal Aviation Administration** **APPLICATION FOR CERTIFICATE OF WAIVER OR AUTHORIZATION**	*Form Approved: O.M.B. No. 2120-0027* **APPLICANTS – DO NOT USE THESE SPACES** Region / Date Action ☐ Approved ☐ Disapproved – ***Explain under "Remarks"*** Signature of authorized FAA representative

INSTRUCTIONS

Submit this application in triplicate (3) to any FAA Flight Standards District Office. Applicants requesting a Certificate of Waiver or Authorization for an aviation event must complete all the applicable items on this form and attach a properly marked 7.5 series Topographical Quadrangle Map(s), published by the U.S. Geological Survey (scale 1:24,000), of the proposed operating area. The map(s) must include scale depictions of the flight lines, show lines, race courses, and the location of the air event control point, Police dispatch, ambulance, and fire fighting equipment. The applicant may also wish to submit photographs and scale diagrams as supplemental material to assist in the FAA's evaluation of a particular site. Application for a Certificate of Waiver or Authorization must be submitted 45 days prior to the requested date of the event. Applicants requesting a Certificate of Waiver or Authorization for activities other than an aviation event will complete items 1 through 8 only and the certification, item 15, on the reverse.

1. Name of organization	2. Name of responsible person
343rd Fighter Wing	Jon J. Doe, Capt., USAF

3. Permanent mailing address	Home number and street or route number	City	State and Zip Code	Telephone No.
	1234 Main Street	Anywhere AFB	IA 12345-6789	(555) 123-4567

4. FAR section and number to be waived

91.117 (a) (b), 91.119 (b) (c), 91.127, 91.129, 91.130, 91.131, 91.155, 91.303 (c) (d) (e)

5. Detailed description of proposed operation (Attach supplement if needed)

Aerial/aerobatic maneuvers by the USAFADS "Thunderbirds" at Anywhere AFB within the area defined as radius of five (5) nautical miles from show center (60°40.780N, 147°06.690W), from the surface up to 15,000 feet AGL.

6. Area of operation (Location, altitudes, etc.)

Five (5) nautical miles from show center (60°40.780N, 147°06.690W), surface to 15,000 feet AGL.

7a. Beginning (Date and hour)	7b. Ending (Date and hour)
15 minutes prior to scheduled aerial demonstration	1:15 (one hour-fifteen minutes) after scheduled takeoff for aerial demonstration (Block of 90 minutes)

8. Aircraft make and model (a)	Pilot's Name (a)	Certificate number and rating (c)	Home address (Street, City, State) (d)
6/F-16C			Nellis AFB, NV

FAA Form 7711-2 (6-86) Supersedes Previous Edition

Attachment 11
Sample Memo-TFR Request

XX Month 19

MEMORANDUM FOR AIR FORCE REPRESENTATIVE, FAA SOUTHWESTERN REGION

FROM: 57 OG/DO (Airspace Manager)

SUBJECT: Request Temporary Flight Restriction (TFR) for Nellis AFB, NV

1. On behalf of the Operations Group Commander, the airspace manager at Nellis AFB, NV, requests a TFR on Nov 12 and 13, 2019. The purpose of this TFR is to alert general aviation to remain clear of the military aircraft aerial demonstration area during the Nellis Air Force Base Aviation Nation air show. Request your consideration and assistance on this action. Listed below are the parameters for Nellis' Open House TFR:

a. November 12, 2019, 2100Z –2359Z - A Radius of 5 NM around Nellis AFB, NV, from the surface to 15,000' AGL. (Thunderbird Familiarization Flight & Military Aircraft Demo Familiarization)

b. November 13, 2019, 1630Z –2230Z- A Radius of 5 NM around Nellis AFB, NV, from the surface to 15,000'AGL. (Military Aircraft Demo & Thunderbird Show)

2. The base has coordinated with the local FSDO and has designed the appropriate show box for this event. If you have any questions, I can be reached at DSN: 682-9594 and COMM: (702) 652-9594.

Garrett M. Solomon, Lt Col, USAF
Air Show Coordinator

Attachment 12

QUICK REFERENCE TABLE OF MAINTENANCE REQUIREMENTS

QUANTITY	DESCRIPTION	ADDITIONAL INFORMATION
Primary (1 each)	MC-2A Low Pressure Air Compressor	Fully serviced and operational
Substitutes	Portable air compressor w/generator	Must be capable of 200 psi
Primary (3 each)	NF-2 Light Cart, NF-2D Lite Cart or FL1D Light Cart	For night maintenance and security
Substitutes	Civilian portable source and flood lights	Must be portable for movement to remote sites. Must be 115-120 volts AC, 60 cycle, with a current rating of 15 amps
Primary (1 each)	MJ-2 Hydraulic Test Stand with **Hydraulic Fluid #83282 ONLY**	Must be a two-system test capable of producing 3,000 psi hydraulic pressure with a flow rate (a 20-25 GPM variable flow rate with minimum reduction in PRM) Connectors #12 and #16 are quick disconnects
Substitutes	MJ-3 Hydraulic Test TU-228E/HU-228/E-1B, MK-3A Electric Mule, MK-2	If electric substitute is used ensure correct source of power is available in support hangar
Primary (2 each)	Bobtail Tow Tractor with multiple pintle hooks (Must weigh a minimum of 8,000 Lbs. GVW)	For moving AGE and other equipment; upload/download of support aircraft (needs front pintle hook). Place at C-17 parking area
Substitute	MB-4 Coleman Tug (large)	
Primary	Hangar Space	15,000 sq. ft. with 20-foot ceiling
Primary (1 each) Does not need to be on site but needs to be acquired within 3 hours	RJM8935 Crane	Used to remove Canopy and ejection seat if required for maintenance
Substitute	Crane with 20ft clearance height, minimum lift of 1000lbs, with single point hook and latch	A hangar ceiling operated crane is acceptable if it meets weight and height requirements
Primary (1 each)	SGNCS Self Generating Nitrogen Cart charged to 4,000 psi	Aircraft are re-serviced with nitrogen capability after each flight. i.e. JFS, blow down doors

Attachment 12-1

QUICK REFERENCE TABLE OF MAINTENANCE REQUIREMENTS

QUANTITY	DESCRIPTION	ADDITIONAL INFORMATION
Primary (3 each)	M-32A-60A Gas Turbine Generator	Fully serviced with both air and electrical systems operational. Must be 115 volts AC, 400 cycles, three phase.
Substitutes	AM/32A-86 (Hobart)	Note: If AM/32A-86s are used, two MA-1As or two -95s must be provided
Primary (1 each)	AM/32A-86 (Hobart)	Used to provide external power to our support aircraft. The unit must be in place and fully serviced/operational when the support aircraft lands. It must be capable of delivering 120 VAC, 3-phase, 400 cycles
Substitutes	AM/32A-60, NC-5 (Navy) NC-8 (Navy), MD-3	
Primary (1 each)	MD-1 Universal Tow Bar	Must be at least 20-feet long; **ensure large towing lugs are positioned inward**
Primary (2 each) **Does not need to be on site but needs to be acquired within 3 hours**	AM32C-10C/O Air Conditioner	Fully serviced with all hoses in good condition
Substitutes	AM32C-10A/B; AM32C-4; AM32C-6; AM32C-17; MA-3; MAE-4	Must have an 8 inch air duct
Primary (1 each)	LN-2 Liquid Nitrogen Cart or, AV-04 Liquid Nitrogen Cart (converter) **MARKED FOR EPU ONLY**	Aircraft are re-serviced with nitrogen capability after each flight. Carts must be oil/grease-free and new or only used to service EPUs previously
Substitutes	12-bottle nitrogen cart, or 8-bottle nitrogen cart, **or (2) 99.5% pure nitrogen bottles with pressure regulator fully serviced to between 4000-6000 psi.** More bottles need to be available within 6 hours of request. **MARKED FOR EPU ONLY**	Each bottle fully serviced to 3,500 psi; ensure pressure regulator is rated to at least 3,500 psi. Bottles must be either new or used only to service EPUs. These bottles can be sourced locally as they are not USAF specific.
Primary (1 each)	Can of red spray paint Can of white spray paint	To mark F-16 parking spots (provide to Advance Crew Chief on arrival day)

Attachment 12-2

QUICK REFERENCE TABLE OF MAINTENANCE REQUIREMENTS

QUANTITY	DESCRIPTION	ADDITIONAL INFORMATION
Primary (1 each)	C-1 Maintenance Stand	Serviceable condition
Substitute	B-4 Maintenance Stand	
Primary (1 each)	B-7 Maintenance Stand	Serviceable condition
Substitute	B-1 Maintenance Stand	
Primary (5 gallons)	MOGAS, unleaded	Used for mx portable generators, show center generators and smoke oil trailer
Primary (2 each)	Large ice cooler (w/ice and (20) 24-bottle cases of bottled water)	This is for maintenance and show center personnel. Additional water is required for the briefing room. **Be prepared to provide more if needed due to excessive temps or humidity.**
Primary (8 each)	150 lb HALON Fire Bottles If unable to acquire HALON, there are acceptable civilian substitutes. Please contact the Thunderbirds Maintenance Officer for acceptable substitutes	Must have wheels. Place 6 at F-16 parking area and 2 at support aircraft
Primary (1 each)	**Forklift with minimum lift capacity of 10K lbs. Min 72" tine length. Min 33" tine spread. Tines must be capable of opening and closing freely.**	Used for airlift upload/download and moving smoke oil barrels
Primary (2 each)	Garbage Cans	Place near support aircraft maintenance hangar
Primary (8 sets)	Aircraft MLG Chocks	Used by Advance Crew Chief
Primary (1 each)	Fuel Bowser	To dispose of fuel samples
Substitute	55-gallon drums (2 each)	
Primary (2 each)	Portable radio to Job Control/ Air show Control / Ground	To coordinate equipment/fuel needs (provide to Advance Crew Chief upon arrival). 4 radios will be required if access across runways is required or if will be required to call ground control for taxiway access
Position equipment near the Thunderbird maintenance hangar. All equipment must be dedicated exclusively to the Thunderbirds the entire stay, **from the Advance Pilot's arrival to the team's departure**. AGE may not be picked up until the agreed-upon release time, previously coordinated with the Thunderbirds.		

Attachment 13

MEASUREMENT GUIDANCE ATTACHMENT

Official instruction governs the limits for body size and weight for safe operation of the ejection seat. For this reason, it is important that all measurements are taken using the procedures described below.

WEIGHT

The patient's weight will be measured with shoes off and in basic civilian attire. Remove contents from the pockets and any extraneous equipment or outer clothing that would affect the member's weight.

HEIGHT (standing)

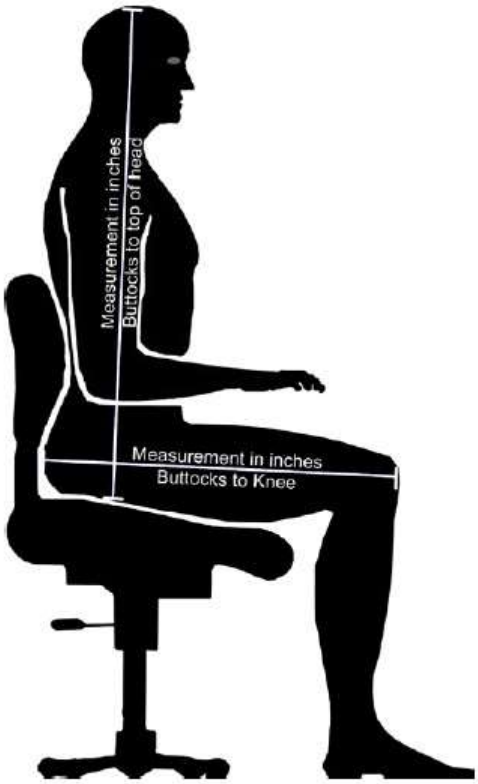
Standing heights are only accomplished without shoes. Examinees are instructed to stand upright and keep their head facing directly forward. Be careful not to allow slouching (which will lower a standing height) or standing on the toes and stretching (which will raise a standing height).

BUTT-HEAD (sitting height)

This is measured by seating the examinee on a flat, hard table or stool with the back of the examinee's knees touching the edge of the table or stool. The hips, knees, and feet must be flexed at 90 degrees, lower legs dangling free, torso straight, and the head facing directly forward. Measure the distance from the top of the head to the surface of the table or stool and record to the nearest quarter of an inch.

BUTT-KNEE

This measurement helps ensure that the examinee's knees and distal lower extremities will clear the instrument panel during the ejection sequence. It is measured by seating the examinee on a flat, hard table or stool with the back of the examinee's knees touching the edge of the table or stool. The hips, knees, and ankles must be flexed at 90 degrees, lower legs dangling free, torso straight, and the head facing directly forward. Measure the distance from the rearmost point on the buttocks to the front of the knee.



Attachment 14

Thunderbirds Orientation Flight Medical Evaluation

APPLICANT'S FULL NAME AND ADDRESS

Name: _____

Address: _____

_____

_____

_____

Applicant Phone Number:

PHYSICAL EXAMINATION
INSTRUCTIONS FOR MEDICAL PHYSICIAN AND APPLICANT

1. This medical certificate must be completed by an M.D. or D.O. only.
2. This exam is for clearance to fly in a high G-force / performance F-16 jet fighter.
3. M.D. or D.O. must complete medical history / exam information.
4. Record all medical findings.
5. Application will be returned if **any** information is incomplete.
6. Reverse side of this form to be completed in full. If unable to complete or obtain any findings, refer patient to a second physician and attach any supplements.
7. M.D. or D.O. must sign reverse side of this form and complete item 36.
8. Application must be completed within 60 days of anticipated date of flight.
9. Applicant cannot donate blood within 2 weeks of anticipated date of flight.
10. Applicant should not wear contact lenses during flight. If required, glasses may be worn with aviator's helmet/mask.
11. Sections 18-24, 30-32 on the reverse side can be used for any additional physical exam or lab documentation if desired by the evaluating physician.
12. Ensure correct completion of the height, weight, butt-head and butt-knee measurements at the top of the reverse side. Refer to provided attachment.
13. Please direct any questions concerning completion of the medical evaluation or the certificate to the Thunderbirds Flight Surgeon. If selected, the applicant will brief with the Flight Surgeon prior to flying. This briefing time is intended to cover physiology training in preparation for the flight. Any medical questions/concerns should be discussed as soon as possible and NOT saved for this briefing time.

MEDICAL HISTORY (This should include any and all changes within the last two years.)

HAVE YOU EVER HAD OR HAVE NOW ANY OF THE FOLLOWING:

Yes	No	Condition	Yes	No	Condition
		a. CLAUSTROPHOBIA / FEAR OF CONFINED SPACES			g. NECK OR BACK (INCLUDING DISC) PROBLEMS
		b. FEAR OF FLYING			h. MUSCULOSKELETAL / JOINT PROBLEMS
		c. DIAGNOSIS OF MOOD DISORDER, DEPRESSION OR ANXIETY			i. HIGH BLOOD PRESSURE, ANEMIA, DIABETES OR HEART DISEASE PROBLEMS
		d. PSYCHIATRIC DIAGNOSIS			j. ASTHMA OR OTHER RESPIRATORY PROBLEMS
		e. AIRSICKNESS / MOTION SICKNESS			k. POSSIBILITY OF CURRENT PREGNANCY (N/A FOR MALES)
		f. CHRONIC SINUS / CONGESTION / HEADACHE PROBLEMS			l. HISTORY OF HOSPITALIZATION

REMARKS: ***(For each "yes" checked, describe and date condition)***

DOCUMENT ANY PRIOR MEDICAL / DENTAL PROCEDURES

DATE	NAME AND ADDRESS OF PHYSICIAN CONSULTED	REASON

Applicant's Certification, Affirmation & Agreement:

I hereby certify that all statements and answers provided by me in this examination form are true and complete, and I agree that they are to be considered part of the basis for approval/clearance to fly as passenger in an F-16 fighter jet. I also agree to notify the Thunderbird Flight Surgeon of any changes to my health that occur after completion of this medical examination.

Official Air Force Instruction requires individuals selected for flight, weighing less than 140 pounds or more than 211 pounds, to be aware of the potential for increased risk of injury in the rare chance of ejection (contact Thunderbirds PA with any questions concerning risk). If applicable, I acknowledge this increased risk.

APPLICANT SIGNATURE (ink)	Date

APPLICANT'S NAME _____

AGE	DATE OF BIRTH	HEIGHT	WEIGHT	BUTT-HEAD	BUTT-KNEE

NOR-MAL	**REPORT OF MEDICAL EXAMINATION** (type or print)	AB-NOR-MAL	NOTES: Describe every abnormality in detail. Enter applicable item number before each comment. Use additional sheets if necessary and attach to this form.
	1. General systemic		CHECK EACH ITEM IN APPROPRIATE COLUMN (Enter NE if not evaluated)
	2. Head, face, neck and scalp		
	3. Nose		
	4. Sinuses		
	5. Ears, general		
	6. Drums (comment on Valsalva Maneuver and if Tympanic Membranes are clear)		
	7. Pupils (Equality and reaction)		
	8. Mouth and throat		
	9. Heart		
	10. Lungs		
	11. Abdomen		
	12. Vascular system		
	13. Endocrine system		
	14. Skin and Lymphatics		
	15. Neurologic		
	16. Musculoskeletal		
	17. Psychiatric		
	18.		
	19.		
	20.		
	21.		
	22.		
	23.		
	24.		

25. BLOOD PRESSURE (Sitting MM Mercury)		26. HEART RATE	27. RESPIRATORY RATE	28. TEMPERATURE
Systolic	Diastolic			

30.	31.

32.	33. DISQUALIFYING DEFECTS/LIMITATIONS

34. COMMENTS ON HISTORY AND FINDINGS, RECOMMENDATIONS

35. LIST ALL MEDICATIONS PATIENT IS CURRENTLY USING (INCLUDE DOSE AND FREQUENCY)

36. PLEASE CHECK ONE

	PHYSICALLY ACCEPTABLE
	FURTHER EVALUATION REQUIRED (Explain in Block 34)

37. MEDICAL PHYSICIAN/D.O. DECLARATION: I hereby certify that I personally examined the applicant named on this medical report and reviewed the medical history on the reverse side of this form. By checking the "PHYSICALLY ACCEPTABLE" box above, I hereby medically clear the applicant to fly in a high performance/high-G F-16 fighter jet.

DATE OF EXAMINATION	**MEDICAL PHYSICIAN(MD/DO ONLY) SIGNATURE**	**MEDICAL PHYSICIAN (MD/DO ONLY) NAME, TITLE, ADDRESS & PHONE (Type or print)**
	State License #	Phone: ( ) Fax: ( )

Attachment 14.2

MEDIA FLIGHT INFORMATION SHEET

Sheets **must** be filled out completely and submitted to Thunderbirds Public Affairs as soon as possible.

Full Name: _____ Last 4 SSAN: _____

Flight Location: _____ Date of proposed flight: _____

"On Air" or "Pen" Name (if different): _____

(This information must be accurate. If Aircrew Flight Equipment does not fit properly, the flight will be delayed/ terminated)

Age: _____ Height: _____ Weight:_____

Waist size (in inches, as measured from the largest portion of waist): _____

Thigh size (in inches, wrap measuring tape around largest part of thigh area): ____

Butt-to-knee: _____ Butt-to-head:_____(refer to diagram on medical paperwork)

Clothing (in men's sizes): Shoe: _____ Jacket: _____ Pants (waist/inseam) :____/___

Health (circle one): Excellent Good Average Poor

Have you ever flown in a fighter aircraft? Yes No If yes, what type?___

Have you ever flown/jumped with ANY military demonstration team? (i.e.: US Thunderbirds, US Navy Blue Angels, US Army Golden Knights, etc.) Yes No

If you answered yes to the above question, please indicate date and location of flight:

_____

Address (include city, state and zip code):

- Office: _____

- Home: _____

Telephone: Office ( )_____-_____ Home ( )_____-_____ Cell ( )_____-_____

E-mail address: Work: _____ Personal: _____

Station call letters/affiliation, publication name or media affiliate: _____

Audience (i.e.: 10,000 viewers, 50,000 circulation, etc.) _____

Who will be accompanying you to help document your experience? _____

When piece will air? _____

INTENT TO BROADCAST/PUBLISH COVERAGE OF YOUR THUNDERBIRDS EXPERIENCE

While exciting, Thunderbirds media flights are not offered as a means of entertainment. Media flights are not offered as rewards/prizes, nor are they offered as (re)payment for other services.

You were specifically nominated to fly with the Thunderbirds based on your potential to communicate about the Air Force to a wide audience. The offer to fly is coupled with the expectation that significant media coverage will be generated shortly after your flight. Even if your flight is approved, we may cancel your flight if unable to confirm intent to produce quality coverage of the experience. If uncertain about responses, please ask local air show organizers.

What is your primary plan for reporting on your experience? (Be specific; i.e, "WXYZ News will air a 3-minute segment on the evening news prior to the weekend's Air Show. They will repeat the segment again on Saturday and Sunday during the morning news, reaching an estimated audience of 400,000 people during peak hours.")

_____

_____

_____

_____

_____

As the passenger, you will be unable to handle the cameras and work on producing the story as you undergo the flight training. How many cameramen/reporters do you (or your team) expect to send to cover the flight? Will you be present for planeside interviews upon the team's arrival?

_____

_____

_____

_____

When do you expect coverage of your flight to be broadcast/published? "WXYZ's story will air on the evening news at 5:30 p.m, Friday, March 6, then again on Saturday and Sunday at 07:00 a.m. both days. The Daily Planet plans to print coverage in their Sunday, March 8 edition, front page.")

_____

_____

_____

I realize my flight may be cancelled at any time, even if previously approved, based on lack of potential coverage.

Printed name:_____Date: _____

Signature: _____

Attachment 15

HOLD HARMLESS AGREEMENT
(provide to Orientation Flight Nominee)

AIR TRANSPORTATION AGREEMENT		**DATE**
PLACE	**FULL NAME**	
PERMANENT ADDRESS		
For and in consideration of being permitted to fly as a passenger in aircraft operated by or on behalf of the United States of America, for and on behalf of myself, my personal representatives, heirs and assigns, I hereby release and discharge the United States, its agents, servants, or employees from any and all claims for property damage and/or personal injury or death resulting from or during said flight or flights or continuances thereof or from ground operations incident thereto.		
SIGNATURE		
WITNESS	**WITNESS**	
NAME AND ADDRESS OF PERSON TO BE NOTIFIED IN EMERGENCY		

Attachment 16

PUBLIC RELATIONS EVENT INFORMATION SHEET
(Provide to Thunderbird Air Show Events Coordinator 45 Days Prior to air show date)

Type of Event: school / hospital / reception / party / interview / other

Location of Event:

Day and Date of Event:

Point of Contact:

Phone Number:

Start/Stop Time of Event:

Estimated Attendance:

Official Host/Sponsor:

Food/Bar Arrangements:
(i.e., heavy hors d'oeuvres, dinner, snacks; complimentary; pay-as-you-go)

Who Should Attend: Officers Only / Enlisted Only / Officers & Enlisted / Other
(Please specify)

Name of Escort:
(An escort is required for any function you expect the Thunderbirds to attend)

Driving time from (please specify) Hotel/Briefing Room:
(Must be within 30 minutes driving time)

Dress: Casual / Formal / Duty Uniform / Showsuit / Civilian Equivalent:

Will there be formal introductions of the team: YES NO

Can Thunderbird family members attend: YES NO

Will the Thunderbird promotional film be shown: YES NO Format: DVD

Will a presentation be made to the team: YES NO
If yes who will make the presentations and from what organization:_____
Description of presentation:

Will there be VIPs attending: YES NO
(If yes, please list below)

Attachment 17

LITHOGRAPH REQUEST LIST
(Provide to Thunderbird Public Affairs 30 days prior to show date)

We will do lithographs for the representatives listed below AND a maximum of 15 additional lithographs. Please type or print legibly the names and organizations for personalized lithographs. Also, if they are military, please provide the appropriate rank.

Lithographs:

(1) Official Air Show name/theme _____

(2) Host Commander _____

(3) Command Chief Master Sergeant _____

(4) Air Show Director _____

(5) Thunderbird Project Officer _____

(6) Maintenance Representative _____

(7) Public Affairs Representative _____

(8) Local U.S. Air Force recruiter _____

(9) Briefing Room Host Unit _____

(10) Hotel/Billeting _____

(11) Schools/Hospitals (only those we visit) _____

(12) Air Traffic Control _____

(13) Workout Facility _____

Additional lithographs (15 Maximum)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Attachment 19

PUBLIC AFFAIRS POST-SHOW REPORT
(Use reverse if necessary)

Show Site:
Date:

1. Official crowd count (list both days if two-day show):

2. Summary of media coverage/support. This must include specific media that covered the Thunderbirds and a media outreach number:

3. Critique of Thunderbird Public Affairs procedures (problems, suggestions, comments):

Attachment 20

RECRUITING AFTER ACTION REPORT

Air Show Information

Name of the air show:_____

Date: Base/City: State:

Thunderbird Project Officer: Crowd Count:

Public Relations Event Information

High School:	Attendance:
High School:	Attendance:
High School:	Attendance:
Hospitals:	Attendance:
Radio Interviews:	Listening Audience:
Radio Interviews:	Listening Audience:
TV Interviews:	Viewing Audience:
TV Interviews:	Viewing Audience:
TV Interviews:	Viewing Audience:
Other:	Attendance:

Recruiter Information

Recruiting Office:

Recruiter Point of Contact:

Phone Number:

Recruiter's Nominee for Media Flight:

Recruiter Involvement

Please rate Recruiter involvement in the following areas using a number from 1 to 10, with 10 being extremely effective and 1 being unacceptable.

Air Show Meetings	Providing Escorts	Media Flight
Pre-Show Publicity	School Visits	Hospital Visits
Medical Recruiting	Enlistments	Recruiting Booth
Ease in Contacting	Other (explain)	

Attachment 21

Execution Checklists

Advance Arrival Day

- Waiver In Effect
- Show Center and Bomb Burst markers in place
- FOD Sweep Complete
- Ladder or Stand Available
- Red and White Spray Paint Available
- 2 Rental Cars Available
- Advance Meeting Scheduled

Team Arrival Day

- AGE in Place
- TFR and Waivers in Effect
- Show Center and Bomb Burst markers in place
- FOD Sweep Complete
- Media/HH flier available to fly (if applicable)
- Media flight airspace scheduled/NOTAM'd (if applicable)
- Media informed of Team arrival time
- Survey flight helo or aircraft on Standby
- Thunderbird briefing room, media room, life support room, and mx hangar empty and ready for exclusive use by Thunderbird team.
- Water available in maintenance hangar for Thunderbird team

Practice Day

- Media/HH flier available to fly (if applicable)
- Media flight airspace scheduled/NOTAM'd (if applicable)
- TFR, Waivers in Effect
- Show Center and Bomb Burst markers in place
- Aerobatic box sanitized of non-essential personnel
- Crowd line setup with snow fencing
- Reenlistment participants notified and in place
- Make-A-Wish guests organized and in place
- FOD Sweep Complete
- Media airspace scheduled/NOTAM'd
- Water available in MX Hangar, at Comm. Trailer, and in Briefing Room

Demonstration Day(s)

- TFR, Waivers in Effect
- Show Center and Bomb Burst markers in place
- Aerobatic Box sanitized of non-essential personnel
- Crowd line set up with snow fencing
- Police Escorts scheduled
- FOD Sweep Complete
- Enlistment Ceremony participants notified and in place
- Crowd Count to PA Officer after the Demo
- Water available in MX Hangar, Comm. Trailer, and in Briefing Room

Attachment 22

MEMORANDUM OF AGREEMENT BETWEEN
THE **820th RED HORSE SQUADRON (820 RHS)**
AND
(NAME OF AIRSHOW) SPONSORS
FOR
AIRCRAFT ARRESTING SYSTEM SUPPORT FOR
U.S. AIR FORCE THUNDERBIRDS AIR DEMONSTRATION

This is a Memorandum of Agreement (MOA) between the **820th RED HORSE Squadron, Nellis AFB, NV (first party) and the "Name of airshow" sponsors (second party).** When referred to collectively, **820 RHS** and **"Name of airshow"** are referred to as the "Parties".

1. BACKGROUND: As part of their 2017 official air demonstration schedule, the United States Air Force Thunderbirds Demonstration Squadron (Thunderbirds) will perform for the **"Name of Airshow"** at Airshow Location, Date. Aircraft Arresting System support was requested from **820 RHS (first party)** by the airshow sponsors (second party) on behalf of the Thunderbirds squadron during the period the squadron will be deployed to Airshow Location.

2. PURPOSE: This MOA enables the second party to obtain Aircraft Arresting System support from the first party for the purpose of supporting the Thunderbirds' air demonstration. This memorandum ensures support on a non-interference and as-needed basis.

4. UNDERSTANDINGS OF THE PARTIES:

a. The **820 RHS** will provide the following items in support of the Thunderbirds:
(Certain show sites may require more/less equipment determined by cable crew)

(1) 2 x Aircraft Arresting Systems

(2) 2 x Aircraft Arresting System Fairlead Beams

(3) 2 x Aircraft Arresting System Purchase Tapes (Reimbursable Item)

(4) 1 x 205 ft Aircraft Arresting System Cable (Reimbursable Item)

(5) Ensure pre-deployment, employment, and post-deployment inspections of Aircraft Arresting System items

(6) Arrange for shipment to and from airshow location, (Location.)

b. The **"Airshow Airport"** Sponsors will:

(1) Ensure **820 RHS** personnel have access to the Airfield during the installation and maintenance of the Aircraft Arresting System from Date of required cables, beginning to end.

(2) Ensure **820 RHS** personnel have access to the Airfield during any emergency in which an aircraft will employ the Aircraft Arresting System.

(3) Ensure there is no unauthorized access/operation of the Aircraft Arresting System without **820 RHS** personnel present.

(4) Ensure **820 RHS** personnel are provided with hotel accommodations for the entire duration of Aircraft Arresting System installation, maintaining and uninstallation of the system as well as provide two (2) rental vehicles during the duration of the function (Date of required cables, beginning to end.)

(5) Ensure **820 RHS** personnel are provided funds to reimburse travel related expenses to include per diem and fuel costs (see Paragraph 7 below).

(6) Ensure **820 RHS** personnel are provided one (1) backhoe and (1) one All- Terrain 10K Fork Lift during the duration of the function (Date of required cables, beginning to end.)

5. PERSONNEL: Each Party is responsible for all costs of its personnel, including pay and benefits, support, and travel. Each Party is responsible for supervision and management of its personnel.

6. GENERAL PROVISIONS:

a. POINTS OF CONTACT: The following points of contact will be used by the Parties to communicate in the implementation of this MOA. Each Party may change its point of contact upon reasonable notice to the other Party.

(1) For the **820 RED HORSE** Squadron:

. (a) Primary: **TSgt John Doe, cell number**

(b) Alternate: **SSgt Jane Doe, cell number**

(2) For the **"Name of Airshow"** Sponsors:

(a) Primary: **Jane Doe, cell number**

(b) Alternate: **Jane Doe, cell number**

7. FUNDS AND MANPOWER: This MOA is an agreement that an estimate in the amount of **$XX,000** was agreed upon between the **820 RHS** and the "Name of Airshow." Upon completion of the AIRSHOW, the **820th RHS** will provide Name of Airshow Director with an invoice of all expenses incurred which may differ from the initial estimate. Upon receiving such invoice, a check will be issued by **Name of Airshow Director to "820th RED HORSE SQUADRON"** to cover the full amount of invoiced expenses.

8. MODIFICATION OF MOA: This MOA may only be modified by the written agreement of the Parties, duly signed by their authorized representatives.

9. DISPUTES: Any disputes relating to this MOA will, subject to any applicable law, Executive order, directive, or instruction, be resolved by consultation between the Parties or in accordance with DoDI 4000.19.

10. TERMINATION OF AGREEMENT: This MOA may be terminated in writing at will by either Party.

11. TRANSFERABILITY: This MOA is not transferable except with the written consent of the Parties.

12. ENTIRE AGREEMENT: It is expressly understood and agreed that this MOA embodies the entire understanding between the Parties regarding the MOA's subject matter.

13. EFFECTIVE DATE: This MOA takes effect beginning on the day after the last Party Signs.

14. EXPIRATION DATE: This MOA expires on Day/Month/Year.

APPROVED:

FOR THE **820 RED HORSE** SQUADRON

_____

Date _____

FOR THE **"NAME OF AIRSHOW"** SPONSOR

_____

Date_____

Attachment 23

MEMORANDUM OF UNDERSTANDING BETWEEN

USAF AIR DEMONSTRATION SQUADRON
AND
XX MAINTENANCE GROUP, NAME OF WING, STATE
FOR
USAF THUNDERBIRDS AEROSPACE GROUND EQUIPMENT SUPPORT

This is a Memorandum of Understanding (MOU) between the USAF Air Demonstration Squadron and the **XX** Maintenance Group. When referred to collectively, the USAF Air Demonstration Squadron and the **XX** Maintenance Group are referred to as the "Parties".

1. AUTHORITIES: DoDI 4000.19, *Support Agreements*, 25 April 2013, AFI25-201, *Intra-Service, Intra-Agency, and Inter-Agency Support* Agreements, 18 October 2013.

2. PURPOSE: The purpose of this Memorandum of Understanding (MOU) is to establish an understanding between the Parties for the coordination and support of aerospace ground equipment (AGE) for use by the USAF Thunderbirds while performing on **(day/month/year) at the (civilian airshow and address).**

3. UNDERSTANDING OF THE PARTIES:

3.1 USAF Air Demonstration Squadron, Nellis AFB, Nevada—

3.1.1. Desires to coordinate the following AGE support for the USAF Thunderbirds for **(date of equipment usage)** at the **(name of civilian airshow).**

3.2 **XX** Maintenance Group, **(location of military base)—**

3.2.1. Intends to provide serviceable and pre-tested AGE, to include: (add additional equip if needed, the following are just a list of equipment other civilian show sites have requested)

3.2.1.1. MJ-2 Hydraulic Test Stand with Hydraulic Fluid #83282 – 1 each
3.2.1.2. Bobtail Tow Tractor – 2 each
3.2.1.3. Self-Generating Nitrogen Cart (SGNCS) – 1 each
3.2.1.4. AM/32A-86 (Hobart) – 2each
3.2.1.5. AM/32A-95 – 2 each
3.2.1.6. C-1 Maintenance Stand – 1 each
3.2.1.7. MA-3D Air Conditioning unit – 2each

3.2.2. Prepare AGE by **day/month/year** for transport from **(military base)** to **(civilian location).**

4. PERSONNEL: Each Party is responsible for all costs of its personnel, including pay and benefits, support, and travel. Each Party is responsible for supervision and management of its personnel.

5. GENERAL PROVISIONS:

5.1 POINTS OF CONTACT: The following points of contact will be used by the Parties to communicate in the implementation of this MOU. Each Party may change its point of contact upon reasonable notice to the other Party.

5.1.1 USAF Air Demonstration Squadron—
5.1.1.1. Mr. Michael P. Rux, Comm: (702) 679-2222 Cell: (702) 378-7956

5.1.2. **XX** Maintenance Group—
5.1.1.2. **Mr. John Doe, office: (xxx) xxx-xxxx, cellular: _____**

5.2 CORRESPONDENCE: All correspondence to be sent and notices to be given pursuant to this MOU will be addressed, if to the USAF Air Demonstration Squadron, to—

5.2.1. Mr. Michael P. Rux, Nellis AFB, NV

and, if to the, **XX** Maintenance Group to—

5.2.2. **Mr/Mrs._____, Address**

5.3 FUNDS AND MANPOWER: This MOU does not document nor provide for the exchange of funds or manpower between the Parties nor does it make any commitment of funds or resources.

5.4 MODIFICATION OF MOU: This MOU may only be modified by the written agreement of the Parties, duly signed by their authorized representatives.

5.5 DISPUTES: Any disputes relating to this MOU will, subject to any applicable law, Executive Order, directive, or instruction, be resolved by consultation between the Parties or in accordance with DoDI 4000.19.

5.6 TERMINATION OF UNDERSTANDING: This MOU may be terminated in writing at will by either Party.

5.7 TRANSFERABILITY: This MOU is not transferable except with the written consent of the Parties.

5.8 ENTIRE UNDERSTANDING: It is expressly understood and agreed that this MOU embodies the entire understanding between the Parties regarding the MOU's subject matter.

5.9 EFFECTIVE DATE: This MOU takes effect beginning on the day after the last Party signs.

5.10 EXPIRATION DATE: This MOU expires on **DAY/MONTH/YEAR**.

APPROVED:

FOR THE USAF AIR DEMONSTRATION SQUADRON	**FOR THE ?ND MAINTENANCE GROUP**
_____	_____
ERIC GORNEY, Lt. Col. USAF Director of Operations, USAFADS	**JOHN DOE, Colonel, USAF** **Commander, ?? Maintenance Group**
_____	_____
Date	Date

Attachment 24

SUPPORT MANUAL COMPLIANCE CERTIFICATE

The United States Air Force Air Demonstration Squadron (Thunderbirds) takes pride in appearing in air shows each year throughout North America. However, on occasion, cancellations are necessary for a variety of reasons, including, but not limited to, weather conditions, other safety considerations (including safety stand-downs) and budgetary constraints. These occurrences can happen at any time, with little or no warning. Every effort will be made to give as much advance notice as possible; however, when cancellations occur, neither the Thunderbirds nor the Department of the Air Force are responsible for any costs associated with any aspect of the air show. These costs include, but are NOT limited to: fuel, smoke oil, ground support equipment, arresting gear, hotels, vehicles, etc.

This certifies that I have read the entire 2019 Thunderbirds Support Manual and will comply with all specifications mentioned within unless specifically designated in writing by the Thunderbirds Events Coordinator. I understand that failure to comply may result in the Thunderbirds cancelling their demonstrations at my show.

Air Show Coordinator: _____

Air Show: _____

Signature: _____

Date: _____

Glossary

AFSC (Air Force Specialty Code) - A numerical system used to identify an Air Force member's particular job and skill level.

AGE (Aerospace Ground Equipment) - Support equipment necessary to maintain U.S. Air Force aircraft.

AGL (Above Ground Level) - Altitude measured in feet above the ground.

COI (Center Of Interest) - An organization created to focus efforts to a specific U.S. Air Force interest.

DSN (Defense Switched Network) - A military telecommunication which allows military installations to call each other directly.

DV (Distinguished Visitor) - A prominent guest such as a General Officer, U.S. Senator, Congresswoman, Governor, etc.

EOR (End of Runway) - Inspection just prior to takeoff.

FAA (Federal Aviation Administration) - The approving authority for waivers concerning aerobatic demonstrations.

FARKLE - (Friends and Relatives Kinfolk and Everyone else) - A special ceremony performed for members of the team and their families

FOD (Foreign Object Damage) - Damage to aircraft components such as tires or engines caused by loose gravel, nuts, bolts, etc.

GPS (Global Positioning System) - A hand-held system used to determine specific latitude and longitude coordinates.

JOAP (Joint Oil Analysis Program) - Used to test oil for aircraft engine wear.

MOA (Military Operating Area) - A geographical region designated specifically for military aviation use.

MOGAS (Motor Gasoline) - Regular gasoline, the type used in vehicles.

NM (Nautical Miles) - Equivalent to 6,076 feet.

NOTAMs (Notice to Airmen) - Notices that are posted at airports/airfields to inform pilots that a particular airfield will be closed.

ROTC (Reserve Officer Training Corp) - Student oriented military training organization.

TDY - (Temporary Duty) - Duties away from regular place of employment.

TFR – (Temporary Flight Restrictions) – Temporarily restricts flight into designated areas.

UHF (Ultrahigh Frequency) - A band of radio frequencies from 300 to 3,000 megacycles per second.

VHF (Very High Frequency) - A band of radio frequencies between 30 and 300 megahertz.

USAF