



# SHARE



# THE AIR



**AN IN-FLIGHT GUIDE TO:  
SHEPPARD AIR FORCE BASE/  
WICHITA FALLS MUNICIPAL  
AND SURROUNDING AREA**

MAR 17

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## INTRODUCTION

The area surrounding Sheppard Air Force Base/Wichita Falls Municipal Airport is host to a great variety of aviation activities. Numerous airline, other civil aviation, and military training flights take place at Sheppard Air Force Base/Wichita Falls Municipal Airport and in the surrounding area.

Please take a few minutes to read through this guide. It offers valuable advice on “Sharing the Air” in the Texoma region.

This guide was created by the Flight Safety Office at Sheppard Air Force Base. Please refer any questions or comments to Public Affairs Office at (940) 676-2732, Flight Safety Office at (940) 676-5000 or the Air Traffic Control Office at (940) 676-7677.

This guide is current as of Mar 2017. Please refer to current aviation publications for the latest aeronautical information.

### **Why do we publish our Share the Air Book?**

On the 18 Jan 05, a midair collision occurred between a T-37B and an Air Tractor AT-502B near Hollister, Oklahoma. The commercial pilot in the AT-502B was fatally injured.

**By publishing this pamphlet and the Share the Air poster, we seek to minimize dangerous and potentially deadly situations.**

Flight Safety can provide your pilot group of 20 or more with a seminar on how training is conducted at Sheppard.

### **LIST OF RECENT NEAR-MIDAIR COLLISIONS:**

- 29 Sep 16 T-38 vs Cessna (pipeline) in final turn at KSPS
- 9 Jun 16 T-6 vs Air Evac at KDUC
- 24 Mar 15 T-38 versus civilian traffic on final at KSPS
- 13 Feb 15 T-38 vs Cessna at KAMA
- 8 Oct 14 T-38 versus civilian traffic taking off from Kickapoo
- 1 Apr 14 T-6 versus civilian traffic on KLAW
- 6 Mar 13 T-38 took evasive actions on final for a civilian traffic at KSPS
- 25 Jul 12 T-38 versus civilian aircraft flying (not cleared) in R-5601C
- 31 Oct 11 T-6 on final versus Cessna 172 performing powerline survey
- 19 Apr 11 T-6 versus C-172 a/c on straight-in to 33 at KSPS
- 18 Mar 11 T-38 versus Cessna Citation on 1NM final at KSPS
- 30 Sep 10 T-6 versus crop duster during GPS approach at KLAW
- 30 Apr 10 T-6 versus civilian traffic from Kickapoo in T-6 VFR traffic pattern

# WICHITA FALLS MUNICIPAL SHEPPARD AFB

Wichita Falls Municipal/Sheppard AFB is unique in that it is the only United States Air Force flight training base that hosts a civilian municipal airport.

There are several points to be aware of when flying to or from the base. During most times when the 80th Flying Training Wing is flying, Sheppard Tower controls Runways 17/35 and 15C/33C. Runways 15R/33L and 15L/33R are controlled by separate runway supervisory units (RSUs). These RSUs control either T-38 or T-6 aircraft on separate UHF frequencies.

During normal operations, civilian aircraft primarily takeoff and land on Runway 17/35. T-38 aircraft utilize a west traffic pattern from 2,300 to 5,000 feet MSL on Runway 15R/33L. It is imperative that aircraft operating on Runway 17/35 comply with altitude restrictions (usually to remain at or below 1,800 feet MSL) given by Sheppard Air Traffic Control. This will decrease the chance of a conflict with traffic operating from other runways.

Due to the intensity of air traffic operations in the vicinity of Wichita Falls Municipal/Sheppard AFB, **contact Sheppard approach control on 118.2 within 25 nautical miles.**

Approach control will provide VFR advisories to the maximum extent possible.

Solo students are not authorized. When SAFB is flying, dual civilian training operations are restricted to full stop only Rwy 17/35. Touch and go's permitted only when SAFB isn't training. Use of SAFB flying facilities (RWY 15/33) should be limited to necessary launch and recovery when Rwy 17/35 is not available, or when required due to aircraft size, or for safety purposes.

# WICHITA FALLS MUNICIPAL

## CONTACT SHEPPARD APPROACH CONTROL

### ON 118.2 WITHIN 25 NM

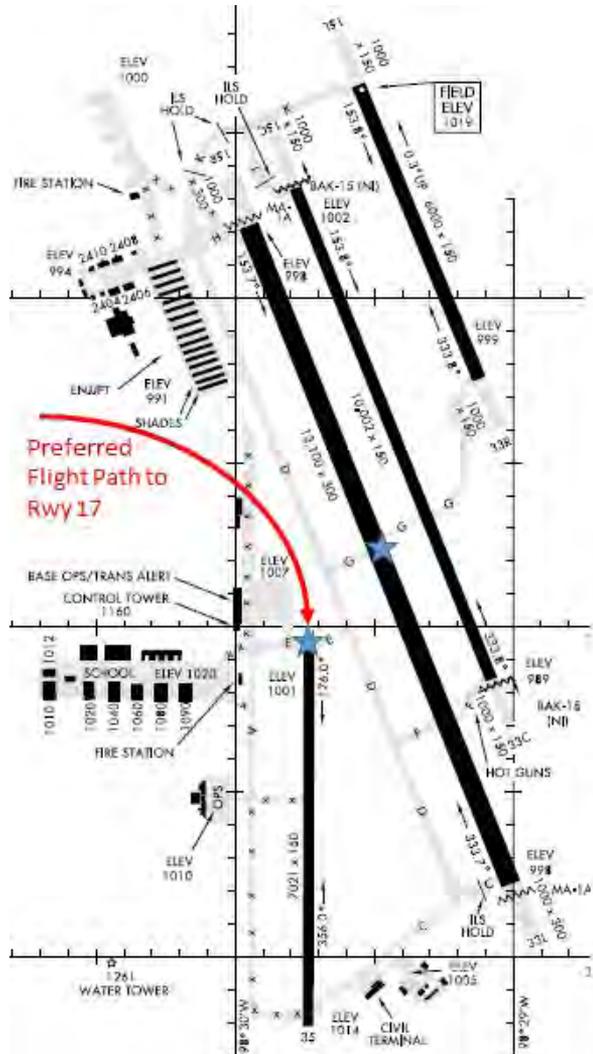
### WARNING!!

The final approach to Runway 17 requires a steep, descending right turn from base leg with almost no straight-in portion. Overshooting this turn presents the most serious potential for conflict in the Sheppard environment due to the high performance, high density traffic on Runways 15R and 15L. Extreme caution should be exercised when landing on Runway 17 so as not to overfly Military Parking Ramp or the taxiway parallel to Runway 15R.

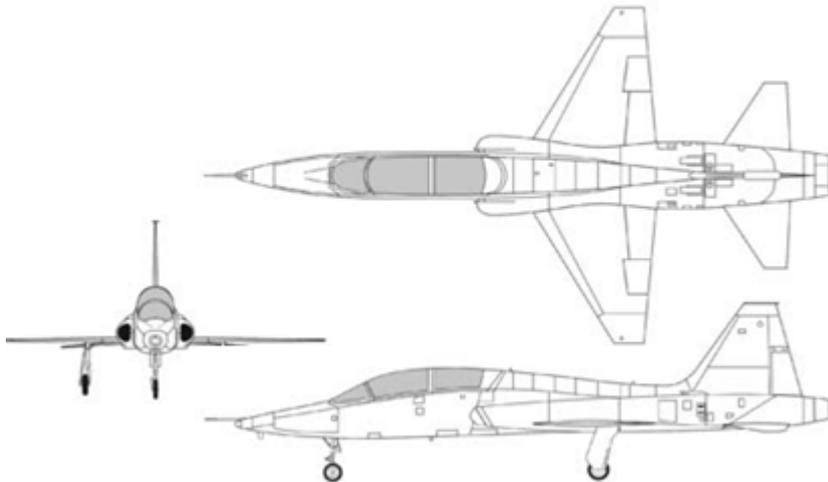
Pattern entry will be at or below 2,400 feet MSL from either the SPS VORTAC or Kickapoo Airport. Maintain 1,800' MSL in the pattern for Runway 17/35.

RWY 17/35 has no landing strobes; however, ATC is able to highlight the runway by turning on/increasing the intensity of the runway edge lights, if necessary.

See NOTAMS for applicable runway/taxiway construction.



★ Indicates Hotspots with most often occurring CMAVs



**T-38C**  
**THE NORTHROP T-38 "TALON"**

Mission: advanced jet pilot training

Crew: usually two (instructor pilot and student pilot). Can be and often is, flown by solo student pilots.

Normal takeoff gross weight: 12,500 lbs.

Length: 46"4' wingspan: 25" 3'

Engines: two general electric J85-GE-5 axial flow turbo-jet engines with afterburner. Maximum thrust -2,050 lbs. pr. engine at 100% rpm, 2900 lbs. pr. engine in full afterburner.

**Performance data**

Departure: airspeed will normally be 300 knots (345 mph) below 10,000' MSL, 350 knots (410mph) above 10,000'MSL rate of climb will vary between 2,000 to 10,000 fpm.

Cruise: maximum range is approximately 900 nautical miles (1035 Statute miles). Maximum airspeed is 710 knots (820 mph) or 1.2 mach.

Normal cruise airspeed is about 300 knots (345 mph).

Arrival: airspeed during descent and arrival is normally 300 knots (345mph)

Traffic pattern: VFR pattern airspeed is 300 knots (345 mph). Final approach airspeed is 165knots (190 mph) with landing gear extended and full flaps.

**Special characteristics**

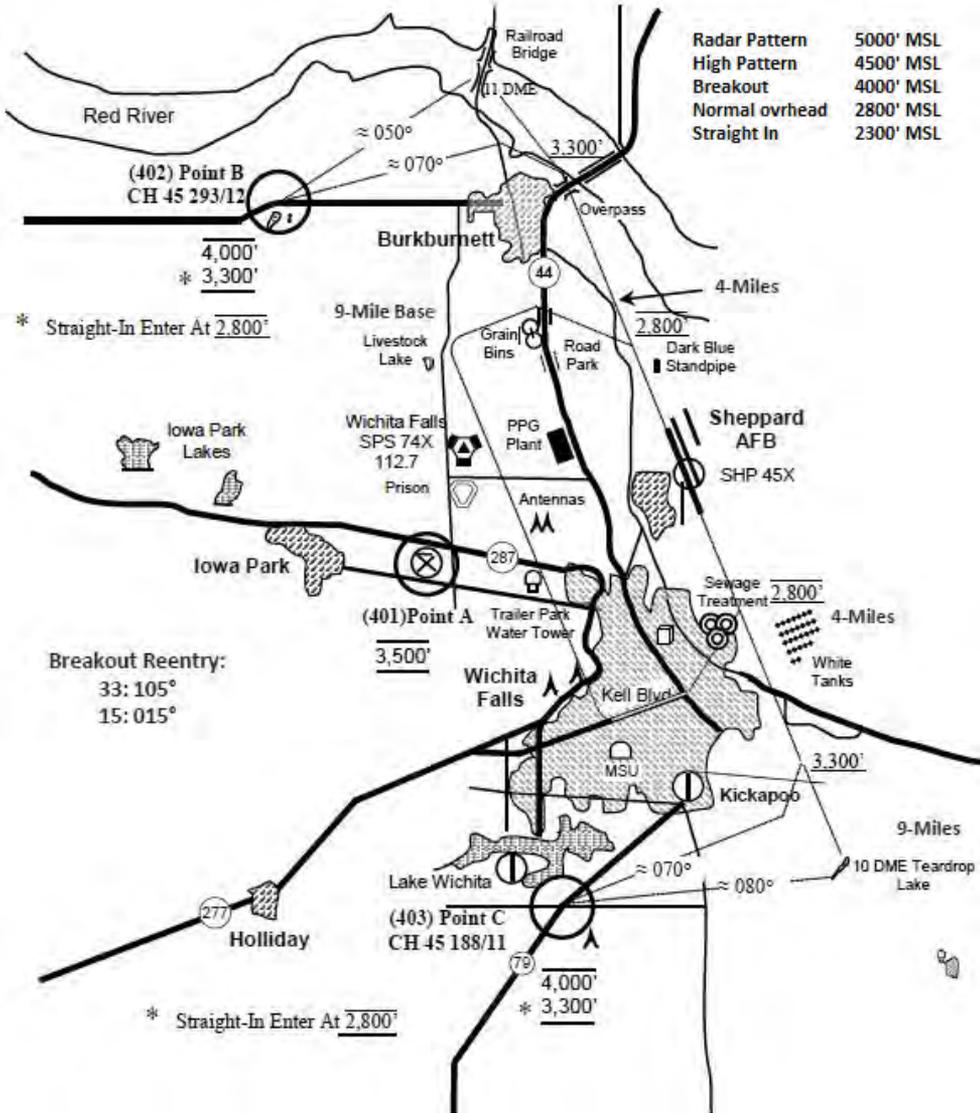
Gray coloring of the aircraft and its relatively small size make it difficult to see. Because the T-38 flies at such a high airspeed and the frontal profile is extremely small, it presents a very real problem in midair collision avoidance. The wake turbulence of a T-38 is significant.

Communications: UHF and VHF

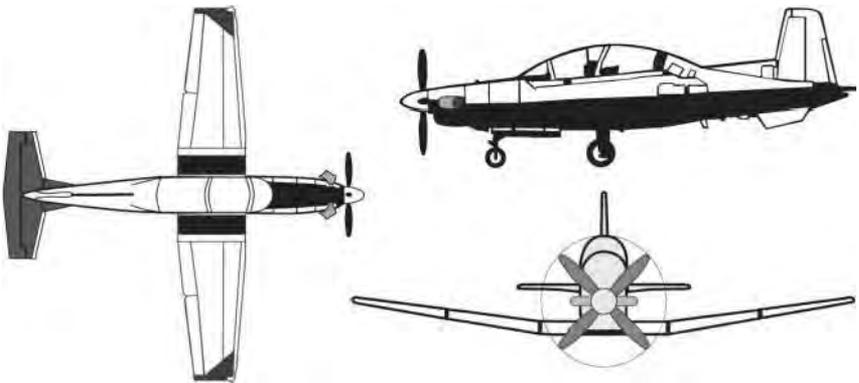
Navigation systems: TACAN, ILS, Localizer, VOR, GPS

**Traffic collision avoidance system (TCAS) (shows all squawking aircraft).**

# T-38 VFR TRAFFIC PATTERN RWY 33L / 15R



Warning: T-38s might be as low as 2300' MSL on a straight-in approach (for Rwy 33, once past Kickapoo's extended centerline)



## **T-6 II TEXAN**

Mission: primary student jet training

Crew: usually two (instructor pilot and student pilot). Can be, and often is, flown by solo student pilots.

Normal takeoff gross weight: 6,500 lbs.

Length: 33' 4"

Wingspan: 33' 5"

Engine: PT6A-68 Free-Turbine Turboprop

### **Performance data**

Departure: airspeed will normally be 180 knots (190 mph). Rate of climb will vary between 1,000 to 5,000 fpm.

Maximum airspeed is 316 knots (365 mph). Normal cruise airspeed is about 200 knots (230 mph)

Arrival: airspeed during descent and arrival is 200 knots (230 mph).

Traffic pattern: VFR pattern airspeed is 200 knots (230 mph). Final approach airspeed is 100 knots (115 mph) with landing gear extended and full flaps.

### **Special characteristics**

Blue and white color.

Wake turbulence of a T-6 is minor.

Communications: UHF and VHF

Navigation systems: VOR, ILS, localizer, GPS.

All are equipped with TAS systems. All with an operating squawk can be picked up by these systems

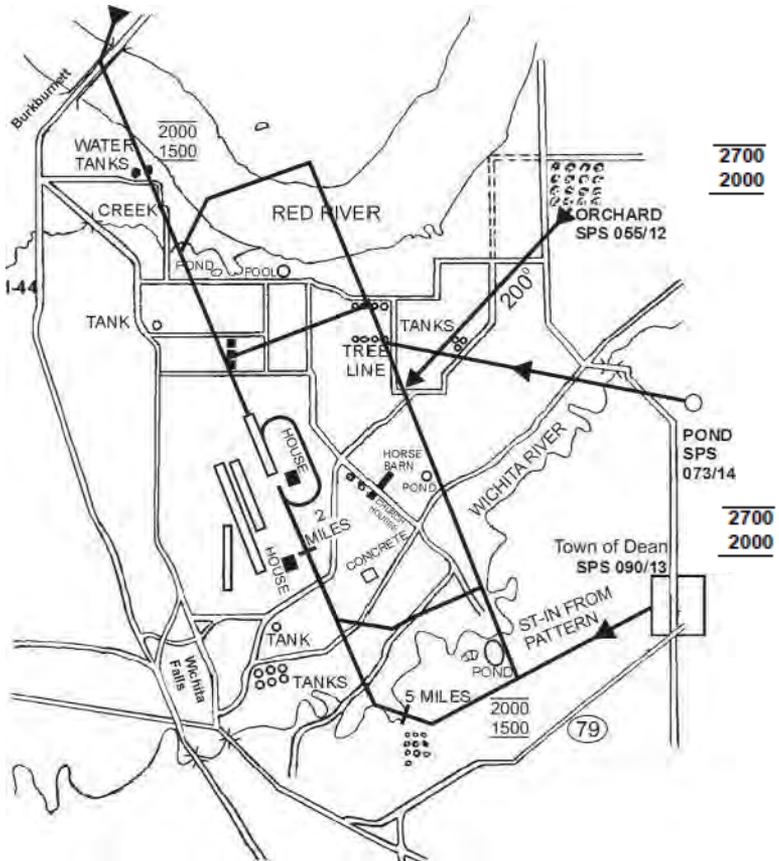
# T-6 VFR TRAFFIC PATTERN RWY 15L/33R

Straight-in	1,500'MSL
Normal Overhead	2000'MSL
Breakout	3000'MSL
High Pattern	3,500'MSL
Emergency Landing Pattern	4,000'MSL

Bridge at town of Randlett

SPS013/12

2700  
2000



**T-6s will fly their Emergency Landing Patterns  
outside Class D airspace.  
T-6s might fly as low as 1500'MSL from  
the pattern entry points towards Class D airspace.**

# SHEPPARD AFB TRAFFIC PATTERN



-  latest civ. vs mil. near midair collision Points
-  RDR/VFR dropoff
-  Class D airspace
-  T-38 pattern (simplified, ref pg. 6)
-  T-6 pattern (simplified, ref pg. 8)

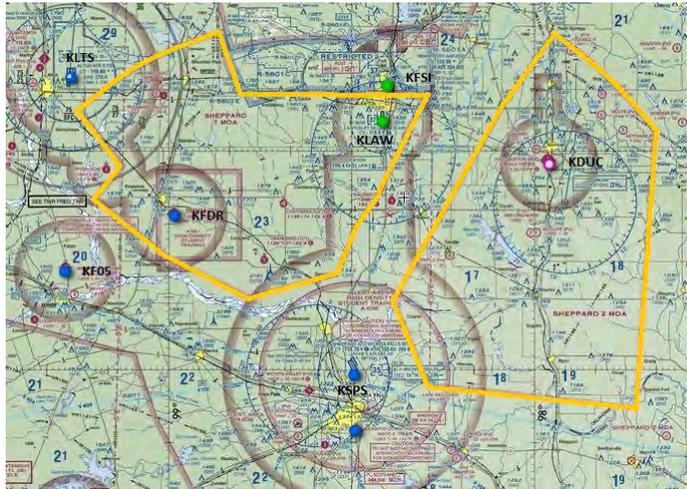
**T-6 - EAST PATTERN**  
**T-38 - WEST PATTERN**

# All Sheppard assigned Military Operating Areas (MOA)

T-6 MOAs  
(Mon-Fri)

8500' MSL-FL220

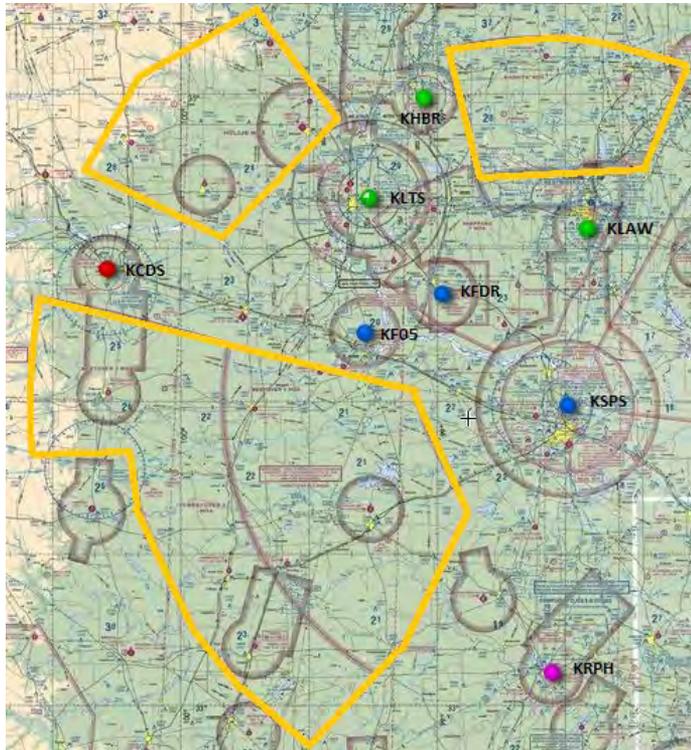
Controlled by Sheppard Approach



T-38 MOAs  
(Mon-Fri)

8000' MSL- FL230

Controlled by Fort Worth Center



**WARNING:**  
AVOID FLYING THROUGH MILITARY OPERATING AREAS

# KICKAPOO AIRPORT

Kickapoo Airport is approximately 8 miles south of Sheppard AFB.

Sheppard AFB conducts intensive student jet training both day and night.

Numerous airline and other civilian aircraft operate out of Sheppard AFB.

The T-38 straight-ins cross Kickapoo's extended centerline to the south at 2800' MSL and then descends to 2300' MSL and continues to the north less than 3 miles to the east of Kickapoo Airport.

## Advice for Kickapoo users:

Squawk 1200 (unless otherwise assigned) and mode C (altitude) if equipped.

Contact Sheppard approach (118.2) or Sheppard departure (120.4) when operating to, or from, Kickapoo.

If proceeding toward the extended centerline of runway 33 remain below 1,800' MSL. In all other cases remain below 2,200' MSL until in contact with approach/departure or until well clear (10 miles from Sheppard AFB).

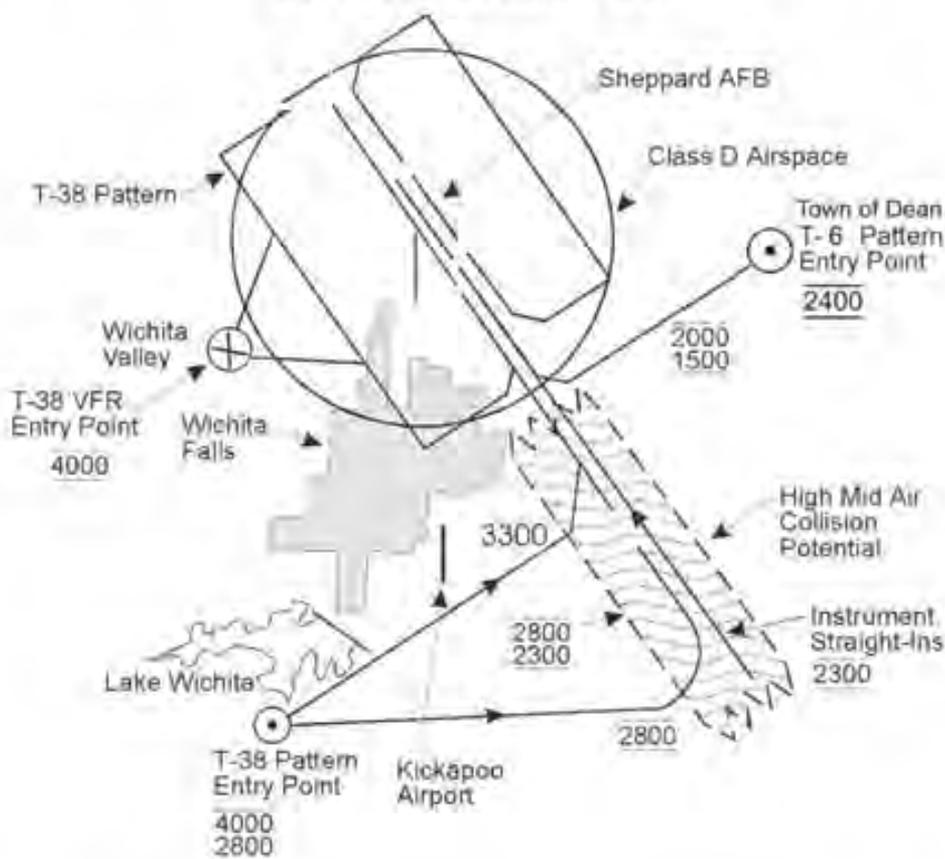
When Sheppard Rwy 33 is the operational runway, there is a traffic conflict between T-38 approaches and Kickapoo departures.

**CONTACT SHEPPARD APPROACH  
[118.2] OR DEPARTURE [120.4]**

**Use extreme vigilance while clearing during VMC**

# CAUTION

HIGH MID/AIR POTENTIAL FOR AIRCRAFT ARRIVING OR DEPARTING KICKAPOO



If practical avoid flight between the town of Dean and the Class D airspace since T-6's on a straight-in will be as low as 1500' MSL.

## TCAS/TAS

As a GA pilot, you're probably wondering "what does TCAS have to do with me?" First of all, knowing the basics of TCAS will assist you when flying in congested areas shared by larger aircraft and you'll realize **how important it is to have your transponder on.**



**Example of a TCAS display**

Airliners, larger commuter aircraft and most military aircraft are now equipped with TCAS. In order for TCAS to provide alerts and advisories, the conflicting aircraft must have an operational transponder. A Resolution Advisory (RA), which is the active vertical guidance provided by TCAS, requires the conflicting aircraft to have Mode C altitude reporting capability. **TCAS is blind to aircraft without a transponder or with their transponder turned off.**

**YOUR OPERATIVE ALTITUDE  
ENCODING TRANSPONDER CAN HELP  
TRAFFIC ALERT AND COLLISION  
AVOIDANCE SYSTEMS (TCAS) EQUIPPED  
T-6 AND T-38 AIRCREWS**

# **SEE AND AVOID !!!**

## **LOW-LEVEL MILITARY TRAINING ROUTES (MTRs)**

The 80th Flying Training Wing at Sheppard AFB conducts extensive low-level training within 100 miles of the base. Training is conducted from 1,500 to 500' AGL, at speeds up to 450 knots for T-38 aircraft and 250 knots for T-6 aircraft. Military pilots use the routes to maintain proficiency by simulating wartime missions. Actual wartime missions require high speed low-level penetrations to avoid detection by the enemy. MTRs are not only used by Sheppard training aircraft, but also by various other fighter, bomber, and transport aircraft. Flight in or near MTRs requires constant vigilance since the hazard potential is great. Flight through MTRs is not prohibited; however, it is not recommended.

A good safety precaution is to avoid flying below 2,000' AGL when in the vicinity of an MTR. This will keep you above high speed military jet traffic as well as providing a greater margin of safety in the event of engine failure. If you choose to operate below 2,000' AGL near an MTR, then make sure to use all available anti-collision lighting (to include landing lights, if practical) and increase your clearing efforts. If crossing an MTR is necessary, this should be done at a 90 degree angle.

Consult the latest Sectional Aeronautical Chart for exact route locations. Call the nearest FSS for the current route status.

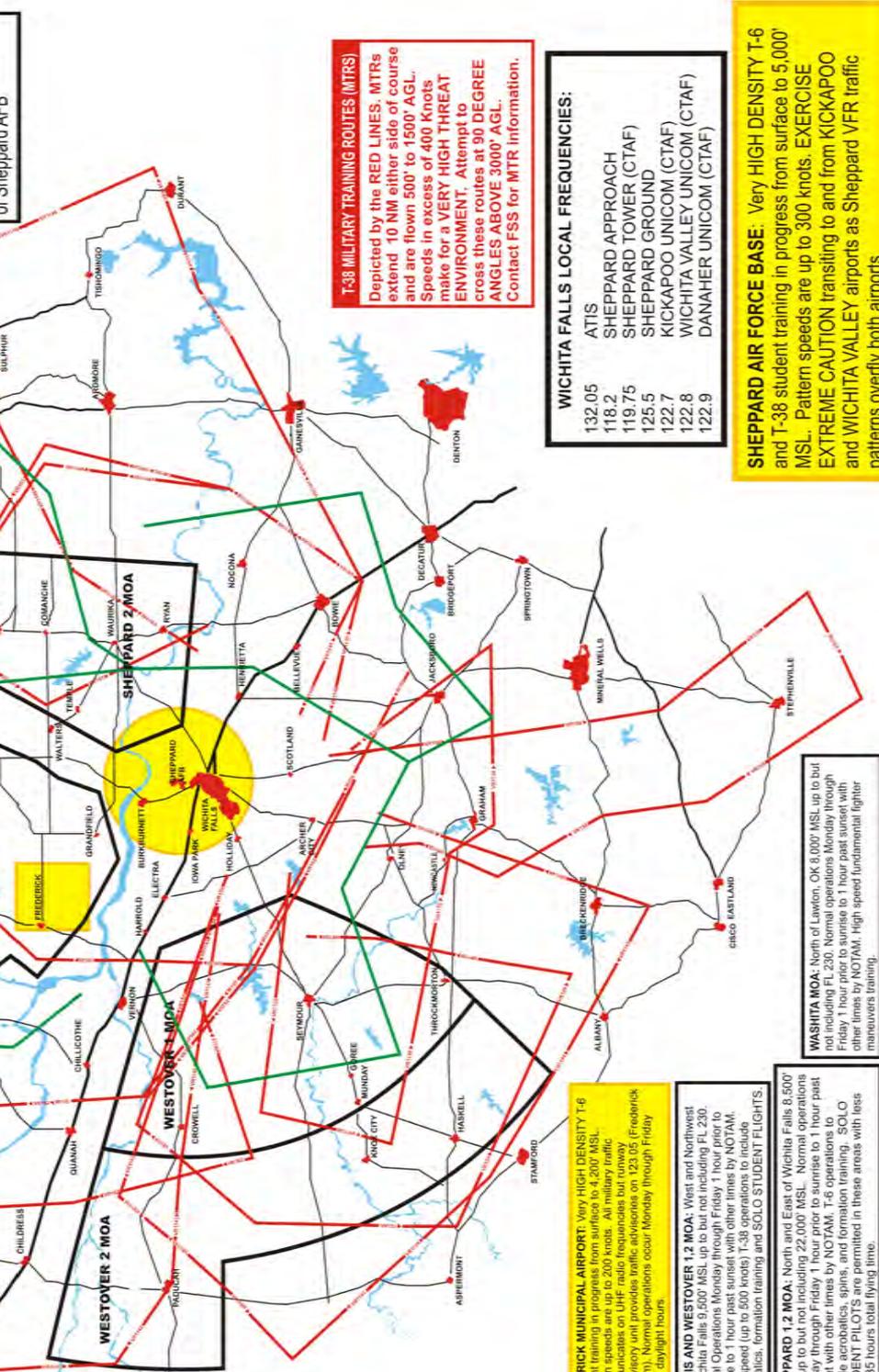
Low Level Routes are depicted on the next page of this guide.

A high resolution overview of the routes can be found on Sheppard's Share the Air website along with views of the individual routes.

<http://www.sheppard.af.mil/Contact/SharetheAir.aspx>

For further information, feel free to contact Sheppard AFB Flight safety office.





**T-38 MILITARY TRAINING ROUTES (MTRS)**  
 Depicted by the RED LINES. MTRs extend 10 NM either side of course and are flown 500' to 1500' AGL. Speeds in excess of 400 Knots make for a VERY HIGH THREAT ENVIRONMENT. Attempt to cross these routes at 90 DEGREE ANGLES ABOVE 3000' AGL. Contact FSS for MTR information.

**WICHITA FALLS LOCAL FREQUENCIES:**

132.05	ATIS
118.2	SHEPPARD APPROACH
119.75	SHEPPARD TOWER (CTAF)
125.5	SHEPPARD GROUND
122.7	KICKAPOO UNICOM (CTAF)
122.8	WICHITA VALLEY UNICOM (CTAF)
122.9	DANAHER UNICOM (CTAF)

**SHEPPARD AIR FORCE BASE.** Very HIGH DENSITY T-6 and T-38 student training in progress from surface to 5,000' MSL. Pattern speeds are up to 300 knots. EXERCISE EXTREME CAUTION transiting to and from KICKAPOO and WICHITA VALLEY airports as Sheppard VFR traffic patterns overfly both airports.

**FREDRICK MUNICIPAL AIRPORT.** Very HIGH DENSITY T-6 student training in progress from surface to 4,200' MSL. Pattern speeds up to 300 knots. Many training sorties on VFR. No primary training. Supervisory unit provides traffic advisories on 123.05 (Fredrick Unicom). Normal operations occur Monday through Friday during daylight hours.

**HOLLIS AND WESTOVER 1,2 MOA:** West and Northwest of Wichita Falls 5,500' MSL up to but not including FL 230. Normal Operations Monday through Friday 1 hour prior to sunrise to 1 hour past sunset with other times by NOTAM. High speed (up to 500 knots) T-38 operations to include acrobatics, formation training and SOLO STUDENT FLIGHTS.

**SHEPPARD 1,2 MOA:** North and East of Wichita Falls 8,500' MSL up to but not including 22,000' MSL. Normal operations Monday through Friday 1 hour prior to sunrise to 1 hour past sunset with other times by NOTAM. T-38 operations to include acrobatics, spins and formation training. SOLO STUDENT PILOTS are permitted in these areas with less than 35 hours total flying time.

**WASHITA MOA:** North of Lawton, OK 8,000' MSL up to but not including FL 230. Normal Operations Monday through Friday 1 hour prior to sunrise to 1 hour past sunset with other times by NOTAM. High speed fundamental fighter maneuvers training.

# WICHITA VALLEY AIRPORT

Wichita Valley Airport is approximately 6 miles west of Sheppard AFB.

T-38 jet aircraft pass overhead Wichita Valley at 3,500' MSL enroute to Sheppard AFB.

Sheppard AFB conducts intensive student jet training both day and night.

Numerous airline and other civilian aircraft operate out of Sheppard AFB.

## Advice for Wichita Valley users:

Squawk 1200 (unless otherwise assigned) and mode C (altitude) if equipped.

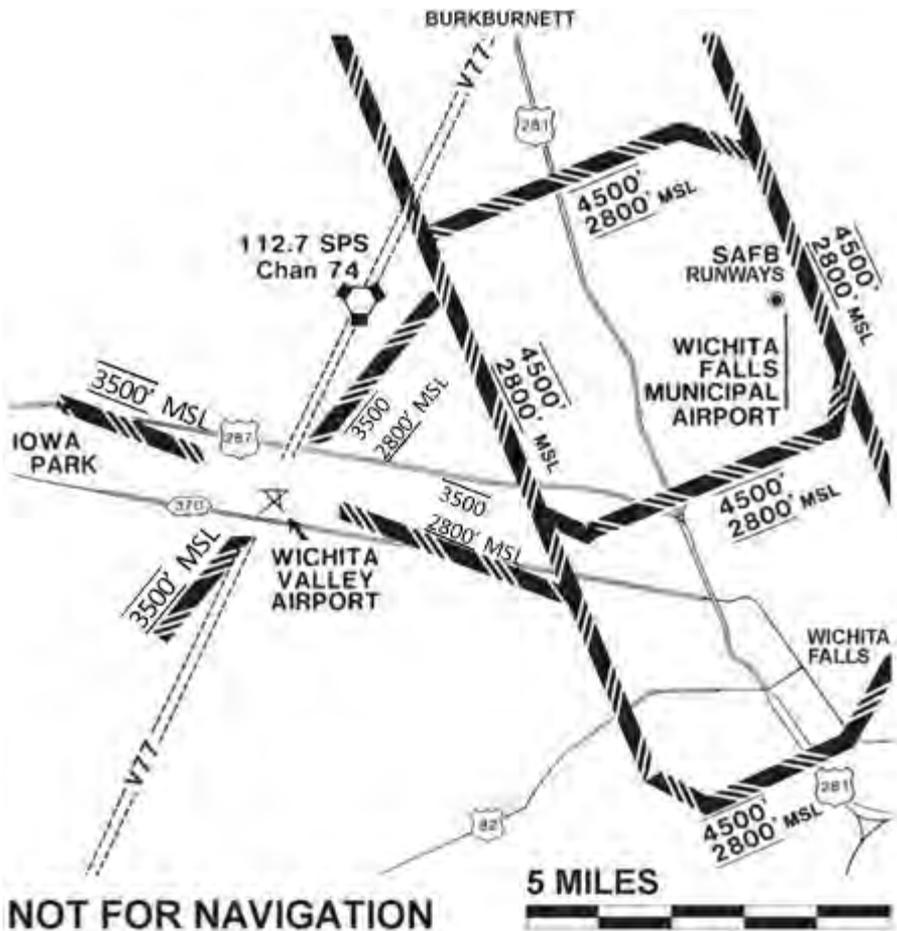
Contact Sheppard approach (118.2) or Sheppard departure (120.4) when operating to, or from, Wichita Valley.

Remain below 2,200 feet MSL until in contact with approach/departure or until well clear (10 miles from Sheppard AFB).

**CONTACT SHEPPARD APPROACH  
[118.2] OR DEPARTURE [120.4]**

**Use extreme vigilance while clearing during VMC**

**T-38 FLIGHT PATTERNS NEAR  
WICHITA VALLEY AIRPORT  
CONTACT SHEPPARD APPROACH ON 118.2**



The T-38 VFR traffic pattern is approximately 2 miles east of Wichita Valley. There is a T-38 VFR entry point directly over Wichita Valley at 3,500' MSL descending to 2,800' MSL. Also, the radar downwind for Sheppard, approximately 2 miles to the west at Wichita Valley at 5,000' MSL. Victor Airway V77 crosses this airport.

## Frederick Airport

Frederick Airport is used by Sheppard AFB T-6 trainers for high density student pilot training.

This training is conducted on weekdays, during daylight hours.

T-6 aircraft are controlled by the red and white runway supervisory units (Call sign: "Hacker") at the end of runways 17R and 35L.

Normal T-6 pattern altitude is 2,200' MSL.  
Straight-ins are flown at 1,700' MSL.

All civilian traffic should contact Hacker on 123.05 (UHF 285.7) approximately 10 miles from the field. Contact Hacker when taxiing for takeoff.

Hacker controls T-6 aircraft but is an advisory-only service for civilian aircraft.

**Contact "Hacker" on 123.05 for advisories**

**Use extreme vigilance while clearing during VMC**



# Duncan Airport

Duncan Airport is used by Sheppard AFB T-6 trainers for high density student pilot training.

This training is conducted on weekdays, during daylight hours.

T-6 aircraft are controlled by the red and white runway supervisory units (Call sign: "Grinder") at the end of runways 17 and 35.

Normal T-6 pattern altitude is 2,200' MSL.  
Straight-ins are flown at 1,700' MSL.

All civilian traffic should contact Grinder on 122.8 (UHF 285.7) approximately 10 miles from the field.  
Contact Hacker when taxiing for takeoff.

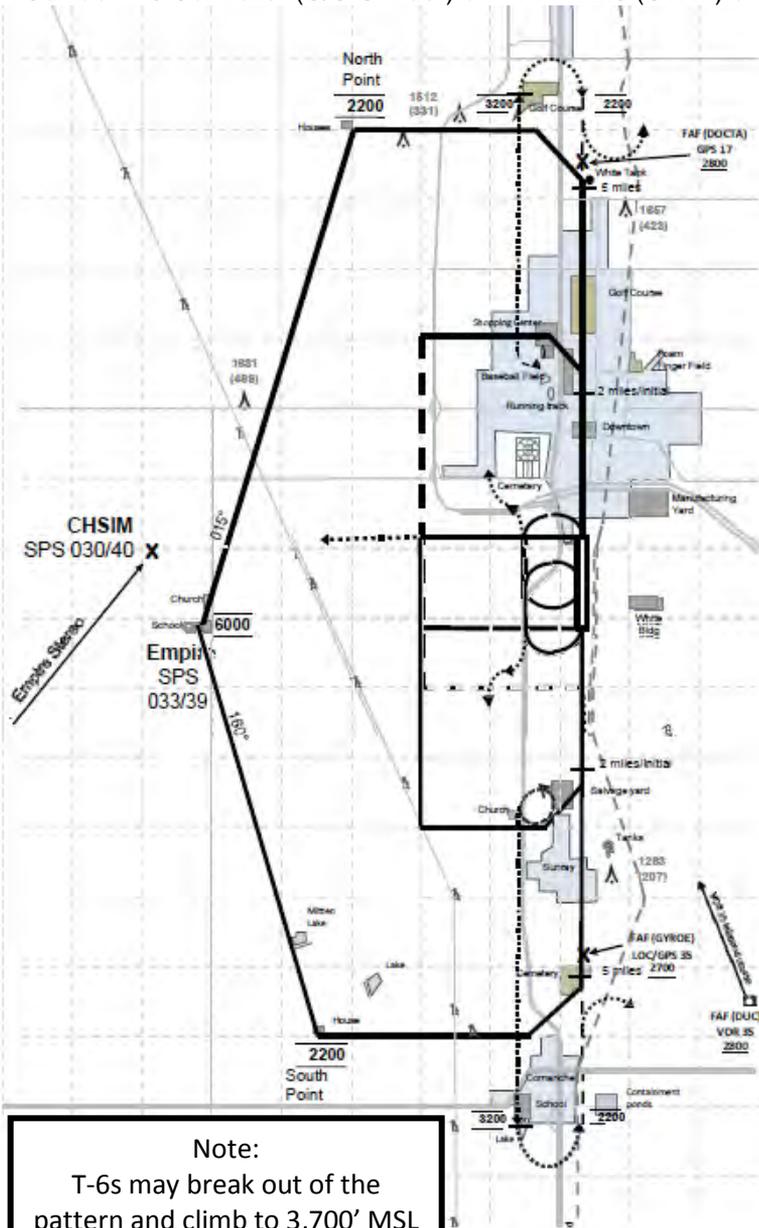
Grinder controls T-6 aircraft but is an advisory-only service for civilian aircraft.

**Contact "Grinder" on 122.8 for advisories**

**Use extreme vigilance while clearing during VMC**

# Duncan VFR Traffic Pattern

Contact T-6 Controller (C/S Grinder) on VHF 122.8 (CTAF) or UHF 285.7



Note:  
T-6s may break out of the pattern and climb to 3,700' MSL for Emergency Landing Pattern

Warning: This is a high density traffic area with military T-6s

# Midair Collision Avoidance

## YOUR ROLE IN COLLISION AVOIDANCE

Recent studies of midair collisions involving aircraft by the National Transportation Safety Board (NTSB) determined that:

- Most of the aircraft involved in collisions are engaged in recreational flying, not on any type of flight plan.
- Most midair collisions occur in VFR weather conditions during weekend daylight hours.
- The vast majority of accidents occurred at or near uncontrolled airports and at altitudes below 1000 feet.
- Pilots of all experience levels were involved in midair collisions, from pilots on their first solo ride, to 20,000- hour veterans.
- Flight instructors were on board the aircraft in 37 percent of the accidents in the study.
- Most collisions occur in daylight with visibility greater than 3 miles.

### Here's how you can contribute to professional flying and reduce the odds of becoming involved in a midair collision:

1. Practice the "see and avoid" concept at all times regardless of whether the operation is conducted under Instrument (IFR) or Visual (VFR) Flight Rules.
2. Under IFR control, don't always count on ATC to keep you away from other aircraft.
3. Understand the limitations of your eyes and use proper visual scanning techniques. Remember, if another aircraft appears to have no relative motion, but is increasing in size, it is likely to be on a collision course with you.

4. Execute appropriate clearing procedures before all climbs, descents, turns, training maneuvers, or aerobatics.
5. Be aware of the type airspace in which you intend to operate in.
6. Traffic advisories should be requested and used when available to assist the pilot's own visual scanning -- advisories in no way lessen the pilot's obligation to see and avoid.
7. If not practical to initiate radio contact for traffic info, monitor the appropriate frequency.
8. Make frequent position reports along your route.  
AT UNCONTROLLED AIRPORTS BROADCAST YOUR POSITION AND INTENTIONS ON COMMON TRAFFIC ADVISORY FREQUENCY (CTAF).
9. Make your aircraft as visible as possible - turn on exterior lights below 10,000' MSL and landing lights when operating within 10 miles of any airport, in conditions of reduced visibility, where any bird activity is expected or under special VFR clearance.
10. If the aircraft is equipped with a transponder, turn it on and adjust it to reply on both Mode 3/A and Mode C (if installed). Transponders substantially increase the capability of radar to see all aircraft and the MODE C feature enables the controller to quickly determine where potential traffic conflicts exist. Even VFR pilots who are not in contact with ATC will be offered greater protection from IFR aircraft receiving traffic advisories.
11. **AVOID COMPLACENCY.**
12. When operating in high density traffic areas, focus on flying rather than talking to your passengers and minimize instructions while flying with students
13. Know the visual limitations of you aircraft; i.e. where your blind angles are etc.

## **VISION IN FLIGHT**

The most advanced piece of flight equipment in any aircraft is the human eye, and since the number one cause of midair collisions is the failure to adhere to the see-and-avoid concept, efficient use of visual techniques and knowledge of the eye's limitations will help pilots avoid collisions. Your vision's clarity is influenced by some characteristics of the objects you are viewing, including:

- a. Your distance from the object
- b. The size, shape, and movement of the object
- c. The amount of light reflected by the object
- d. The object's contrast with the surrounding environment

You cannot see all objects in your field of vision with equal clarity. Visual acuity is best in a central area of about 10 to 15 degrees and decreases steadily toward the periphery of the visual field.

A similar limitation of the eyes is binocular vision. For the brain to believe what is being seen, visual cues must be received from both eyes. The mind seldom believes that the object is really there if it is visible to one eye but obstructed from the other by a strut or windshield frame.

A visual limitation that few pilots are aware of is the time the eyes require to focus on an object. Focusing is all automatic reaction, but to change focus from a nearby object, such as an instrument panel, to an aircraft one mile away, may take two or more seconds.

## **PROPER CLEARING/SCANNING TECHNIQUES**

An efficient scan pattern is paramount to visual collision avoidance procedures. In developing a proper scan technique, remember that when your head is in motion, vision is blurred and the brain will not be able to identify conflicting traffic. Therefore a constant motion scan across the windscreen is practically useless.

A proper scan technique is to divide your field of vision into blocks approximately 10 to 15 degrees wide. Examine each block individually using a system that you find comfortable (e.g. from left to right or starting from the left and moving to the right, then back to the left again). This method enables you to detect any movement in a single block. It takes only a few seconds to focus on a single block and detect conflicting traffic.

**A moving target attracts attention and is relatively easy to see. A stationary target or one that is not moving in your windscreen is very difficult to detect and is the one that can result in a MIDAIR COLLISION.**

The time to perceive and recognize an aircraft, become aware of a collision potential and decide on appropriate action, may vary from as little as 2 seconds to as much as 10 seconds or more depending on the pilot, type of aircraft and geometry of the closing situation.

## **RADAR ADVISORY SERVICE**

As an aid to mid-air collision avoidance, Flight Service Stations or Center provides radar advisories to VFR aircraft upon request. A transponder is required within Class C Airspace. To obtain radar advisories, state your position, altitude, and intentions, then request radar advisories. Once radar contact is established, traffic advisories will be issued for IFR and known VFR traffic (controller workload permitting).

# HOW TO AVOID A MIDAIR COLLISION - A Safety Project of the AOPA Air Safety Foundation

## Introduction

By definition and function, the human eye is one of the most important and complex systems in the world. Basically, its job is to accept images from the outside world and transmit them to the brain for recognition and storage. In other words, the organ of vision is our prime means of identifying and relating to what's going on around us.

It has been estimated that 80% of our total information intake is through the eyes. In the air, we depend on our eyes to provide most of the basic input necessary for performing during a flight. Through our eyes we define attitude, speed, direction, proximity to things (like the ground), and opposing air traffic that may constitute a danger of in-flight collision. As air traffic density and aircraft closing speeds increase, the problem of in-flight collision grows proportionately. A basic understanding of the eyes' limitations in target detection is some of the best insurance a pilot can have against running into another airplane and spoiling his whole day.

## Profile of Midair Collisions

Studies of the midair collision problem form certain definite warning patterns. It may be surprising to some that nearly all midair collisions occur during daylight hours and in VFR conditions. Perhaps not so surprising is that the majority happen within five miles of an airport, in the areas of greatest traffic concentration, and usually on warm weekend afternoons when more pilots are doing more flying.

Also surprising, perhaps, is the fact that the closing speed (rate at which two aircraft come together) is relatively slow, usually much slower than the airspeed of either aircraft involved. This is because the majority of in-flight collisions are the result of a faster aircraft overtaking and hitting a slower plane.

Statistics on 105 in-flight collisions show that 82% were at overtaking convergence angles; 35% were from a 0-10 degree angle - - almost straight from behind. Only 5% were from a head-on angle.

Although your passengers frequently are not pilots, they can greatly assist you in your responsibility to “see and avoid.” Take a few moments to brief your passengers on the importance of detecting traffic and, if possible, acquaint them with the basics of scanning. Explain how to relate traffic position with respect to the clock and encourage them to report all the traffic they see. This will invariably result in a few “false alarms,” but the possibility of a passenger detecting a threat before you do is worth the inconvenience. Besides, most passengers will enjoy the flight more if they can actively participate in the experience.

## **Why Do We Have Share The Air?**

### Causes of Midairs

What causes in-flight collisions? Undoubtedly, increasing traffic and higher closing speeds represent potential. For instance, a jet and a light twin have a closing speed of about 750 mph. It takes a minimum of 10 seconds, says the FAA, for a pilot to spot traffic, identify it, and realize it's a collision threat, react, and have his aircraft respond. But two planes converging at 750 mph will be less than 10 seconds apart when the pilots are first able to detect each other!

These problems are heightened by the fact that our air traffic control and radar facilities are, in some cases, overloaded and limited.

These are all causal factors, but the reason most often noted in the statistics reads: “Failure of pilot to see other aircraft” - failure of the see-and-avoid system. In most cases, at least one of the pilots involved could have seen the other in time to avoid contact if he had just been using his eyes properly. So it's really that complex, vulnerable little organ--- the human eye -- which is the leading cause of in-flight collisions. Take a look at how its limitations affect your flight.

# QUICK REFERENCE GUIDE

Frequencies (Check current publications)

## **Sheppard AFB/Wichita Falls Municipal Approach - 118.2 / 120.4**

Tower/CTAF - 119.75

Ground - 125.5

ATIS - 132.05

Clearance - 121.2 (Phone 676-8354) Hours of operation:

Tower: Mon-Fri: 0600-2000L

Sat, Sun & Holidays: *As published by NOTAM*

Approach control:

Mon-Fri: 0600-2000L

Sat & Sun: *As published by NOTAM*

## **Frederick Airport**

Unicom and "Hacker" advisory - 123.05

## **Duncan Airport**

Unicom and "Grinder" advisory - 122.8

## **Kickapoo Downtown Airport**

Sheppard Approach - 118.2 / 120.4 for runway 33

Unicom - 122.7

## **Wichita Valley Airport Sheppard**

Approach - 118.2 Unicom - 122.8

## **Danaher Airport**

Sheppard Approach - 118.2

Unicom - 122.9

## Phone Numbers

Sheppard AFB Public Affairs: (940) 676-2732

**Sheppard AFB Air Traffic Control Office: (940) 676-7677**

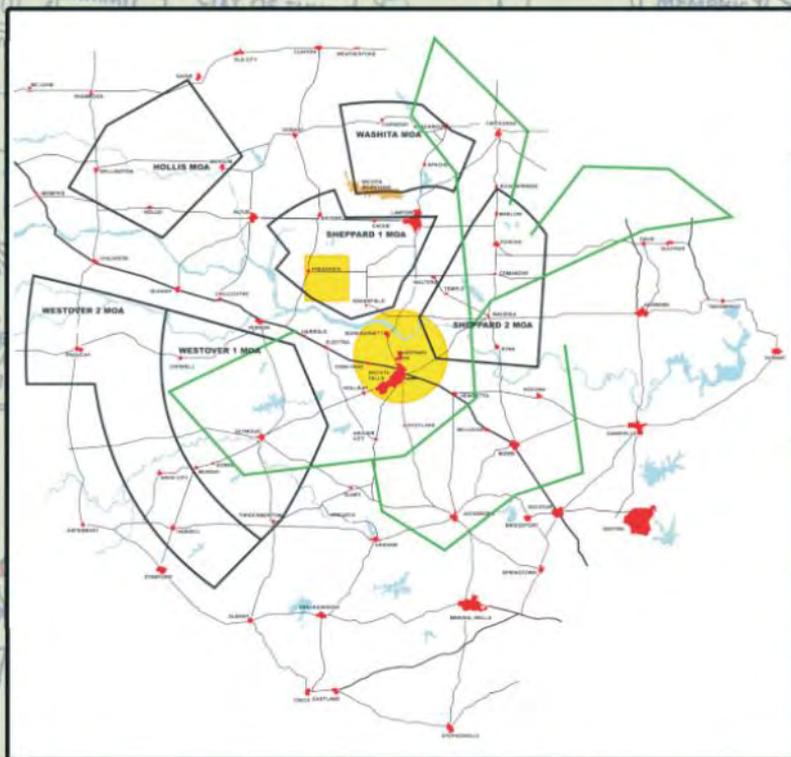
Sheppard AFB Flight Safety Office:

(940) 676-5000/5001

FAX: (940) 676-4968



# FLY SMART



## SHEPPARD MILITARY OPERATING AREAS

<b>Sheppard 1,2</b>	(T-6)	8,500-22,000 MSL	Mon-Fri	SR-1-SS+1*
<b>Westover 1,2</b>	(T-38)	9,500 MSL-FL230	Mon-Fri	SR-1-SS+1*
<b>Hollis</b>	(T-38)	11,000 MSL-FL230	Mon-Fri	SR-1-SS+1*
<b>Washita</b>	(AT-38)	8,000 MSL-FL230	Mon-Fri	SR-1-SS+1*

\*Other times by NOTAMS

# FLY SAFE