

Mid Air Collision Avoidance (MACA)



Our Goal



To educate and address the concerns of civilian pilots in the local area of the potential conflicts and hazards in and around Whiteman Air Force Base.



MACA CONCERNS



- Mizzou Approach Control Airspace
- SGF Approach Control Airspace
- MCI Approach Control Airspace
- IR 527 & VR 1525
- Restricted Area 4501 (Ft. Leonard Wood)
- Whiteman Approach Control Airspace
- Truman MOA
- Whiteman Aircraft



Mizzou Approach Control



- Actual location: Springfield, MO
- SFC-7000' MSL
- Poor Radar Coverage to the south
- Frequency problems to north and south
 - 124.37 to the north
 - 124.1 to the south
- Truman MOA Airspace



Springfield Approach Airspace



- Surface to 15,000 MSL
- Proximity to Truman MOA area "C"
- IFR flights to or from SGF may experience delays or deviations, when the MOA is active



MCI Approach Control Airspace



- SFC-15,000 MSL
- VFR handoffs can be accomplished workload permitting
- Busy Airfields (Other than MCI)
 - Downtown (MKC)
 - Johnson county (OJC)
 - New Century (IXD)



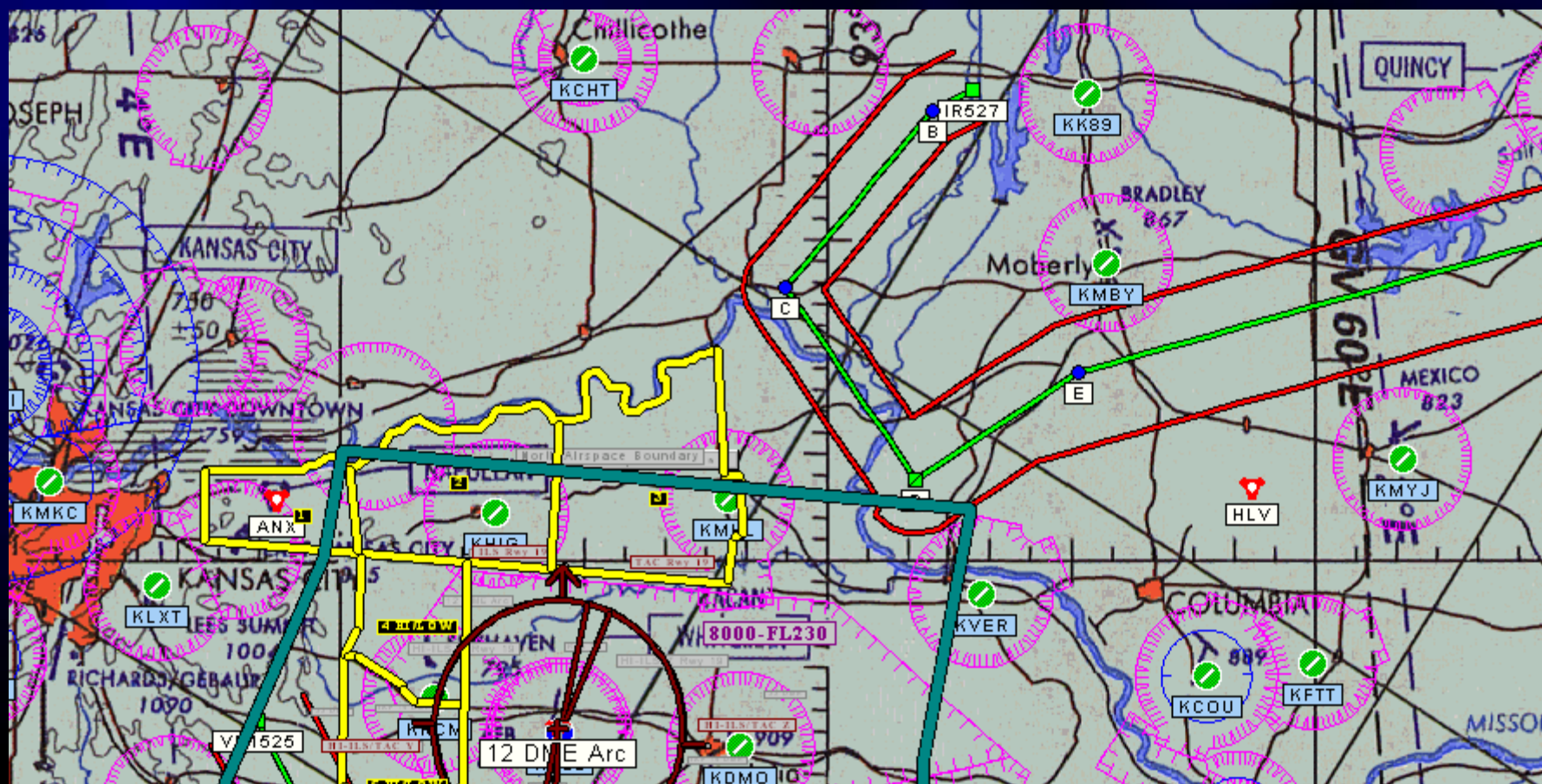
IR-527



- 183 FW, SPRINGFIELD, MO
- LOW LEVEL TRAINING ROUTE
 - TERRAIN FOLLOWING OPERATIONS
- OPERATING PROCEDURES
 - VMC ONLY, 3000' / 5 MILES VISIBILITY
- DUE TO LOW LEVEL, RADAR ADVISORIES MAY BE IMPOSSIBLE



IR 527





VR 1525

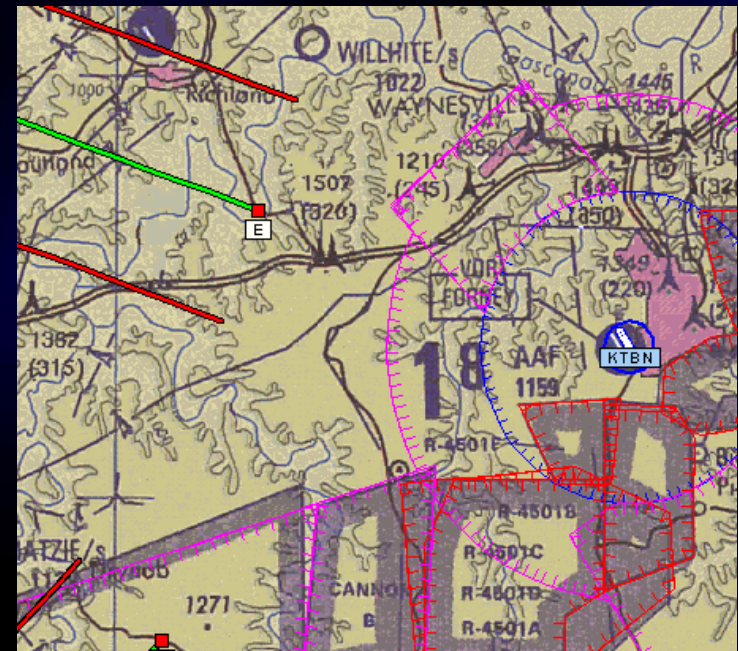


- 509 BW, WHITEMAN AFB, MO
- T-38s PRIMARY USERS
- FREQUENTLY USED
- SPEEDS IN EXCESS OF 350KTS
- LOW LEVEL TRAINING ROUTE
 - TERRAIN FOLLOWING OPERATIONS
- OPERATING PROCEDURES
 - VMC ONLY, 3000' / 5 MILES VISIBILITY



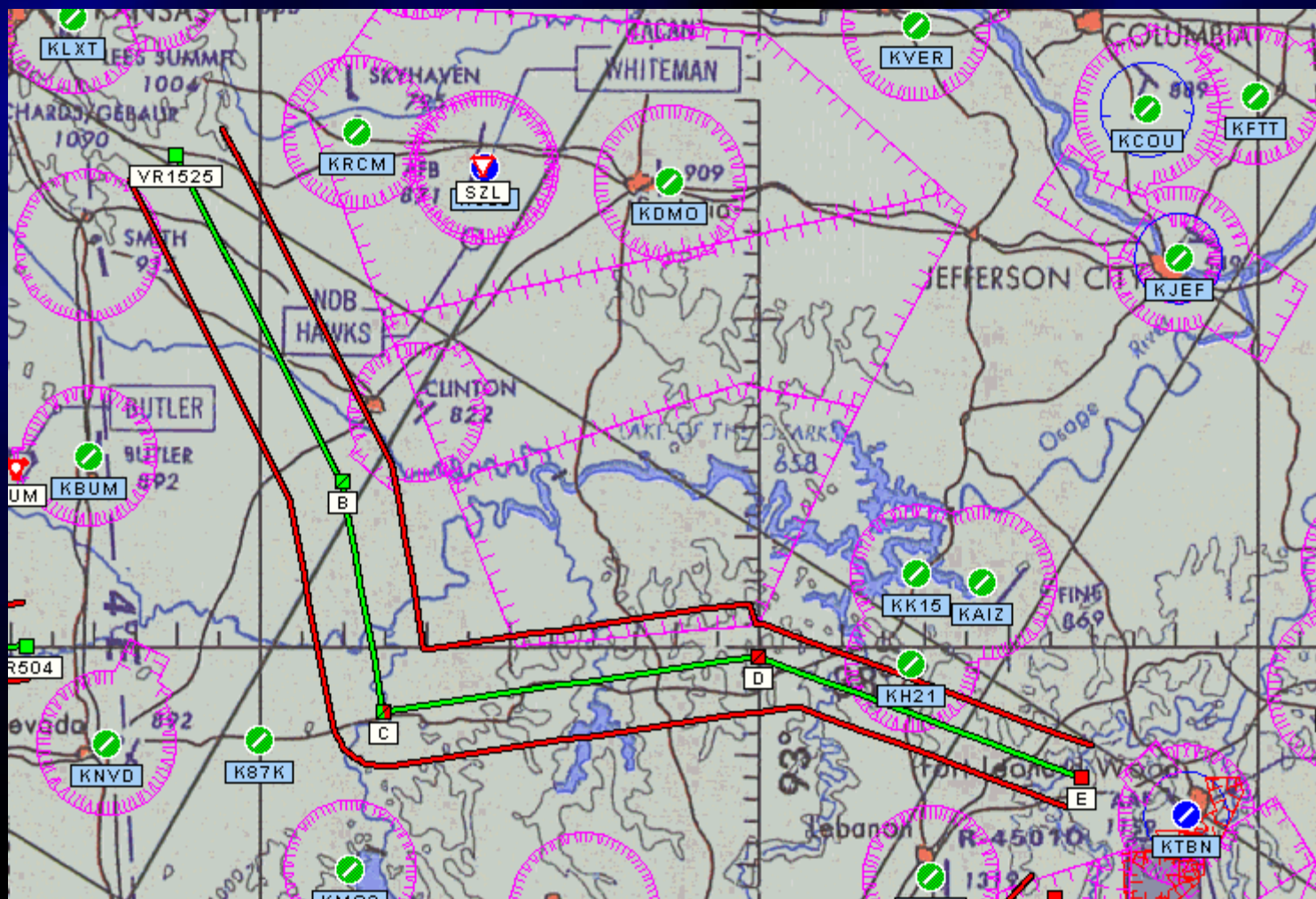
VR 1525 cont.

- DUE TO LOW LEVEL, RADAR ADVISORIES MAY BE IMPOSSIBLE
- ROUTE MAY USED FOR NAVIGATION TO CANNON RANGE OR R-4501 BUT DOES NOT TERMINATE IN EITHER





VR 1525





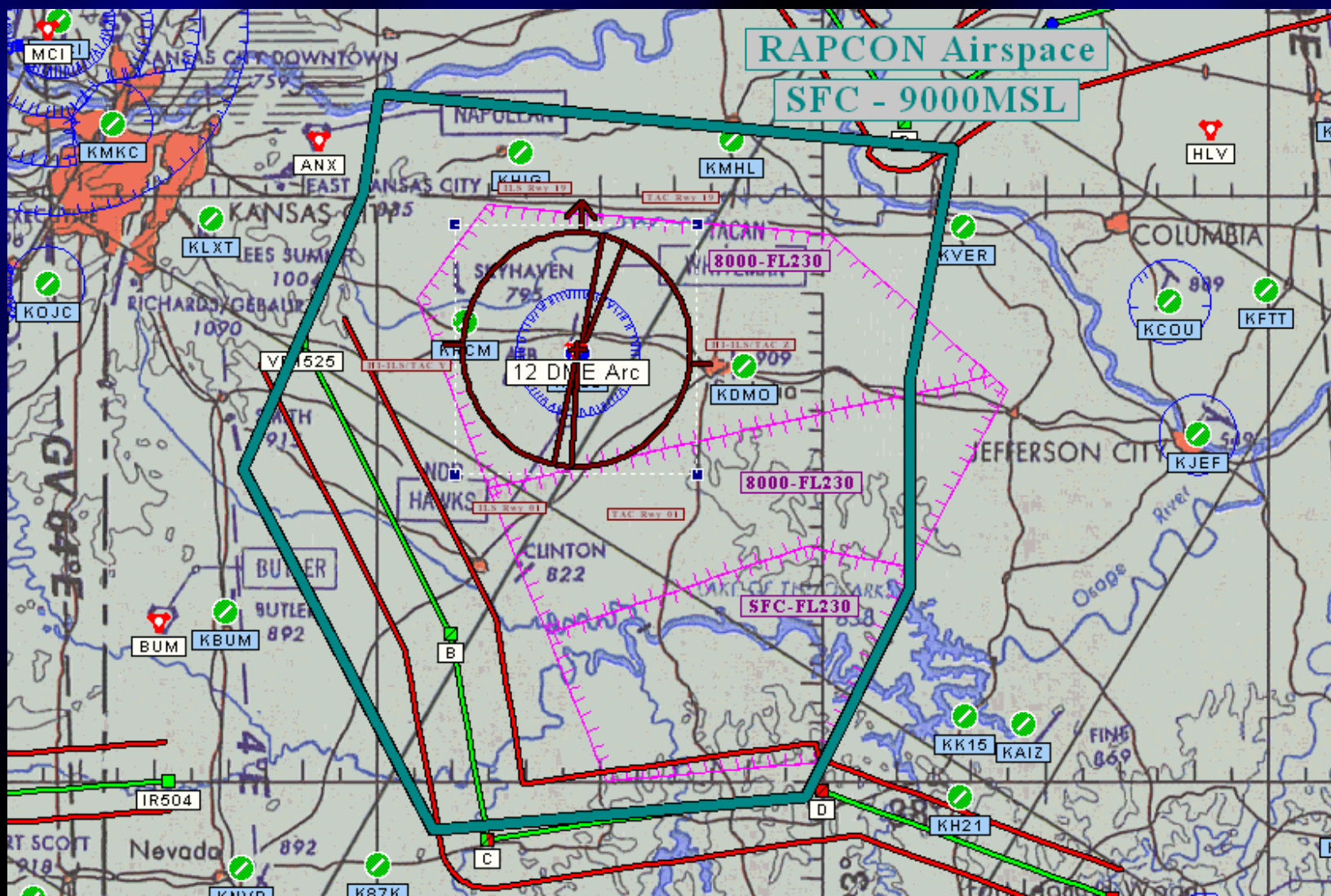
Whiteman Approach Control



- Surface to 9,000 MSL
- Services Provided
 - VFR traffic advisories - workload permitting
 - Full IFR services
 - Cancel, change or file IFR flight plans.
 - Approach control functions to: Skyhaven, Golden Valley, Sedalia, Windsor, Otten, Osceola, Marshall, and Higginsville
- Approach Control - 127.45
- Departure Control – 125.925



Whiteman Airspace





TRUMAN MOA A/B&C



- Areas A & B
 - Active from 8000' MSL to FL 230
 - Aerobatic/Formation flight training
- Area C
 - Active from 500' AGL to FL 230
 - Aerobatic/Formation/Low Altitude training
- Services
 - VFR may transit but with **EXTREME** caution
 - IFR will be vectored around in most cases



Local Area



- MOAs
- VR 1525
- UCM training areas
 - Low (Up to 4,000 MSL)
 - High (4,000 -6,000 MSL)
 - SZL West Orbit (Hi-ILS/TAC-Y) over UCM Area 5 at 4,000'



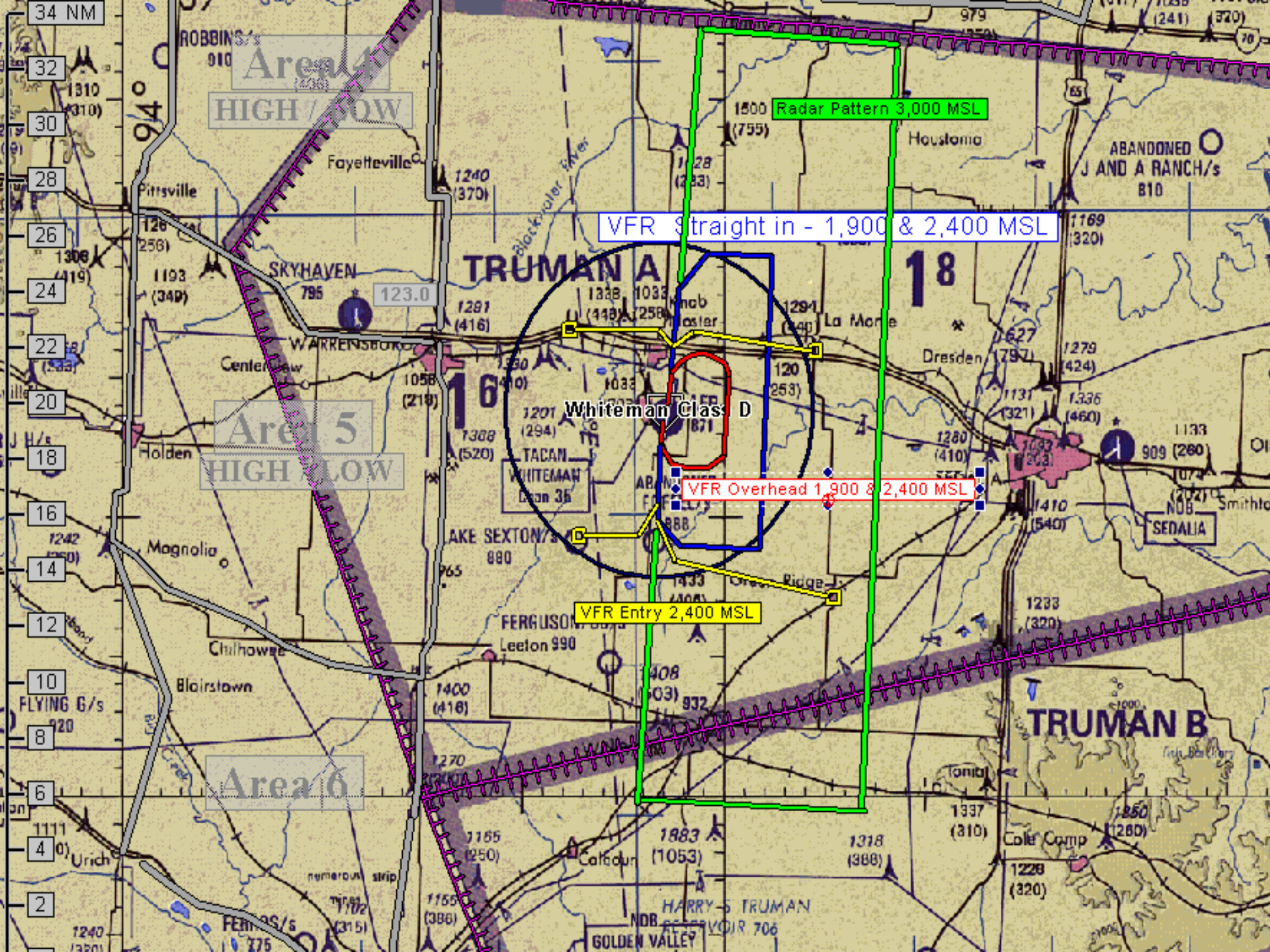
Whiteman Pattern





Whiteman Pattern

- Radar pattern - 3,000 or 4,000 MSL
- VFR pattern – 1,900 or 2,400 MSL
 - VFR Entry points – 2,400 MSL
 - La Monte, Montserrat, Sexton Lake, Green Ridge
- Overhead pattern – 1,900 or 2,400 MSL



Area 4
HIGH / LOW

Area 5
HIGH / LOW

Area 6

Radar Pattern 3,000 MSL

VFR Straight in - 1,900 & 2,400 MSL

VFR Overhead 1,900 & 2,400 MSL

VFR Entry 2,400 MSL

Whiteman Class D

34 NM
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2

ROBBINS'S
910
1310
1310
1193
1193
126
126
1308
1308
1193
1193
1242
1242
1111
1111
1240
1240

Pittsville
Fayetteville
WARRENSBURG
Center
Holden
Magnolia
Chilhowee
Blairstown
URICH
123.0
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1291
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1165
1165

Houstonia
ABANDONED
J AND A RANCH/s
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1233
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1337
1229
1229
1883
1883
1318
1318
1850
1850

TRUMAN A

TRUMAN B

GOLDEN VALLEY

SEDALIA

HARRY S TRUMAN
NDB
VOIR 706



Lights Out Training

- Purpose – Realistic NVG training
- Location – Truman MOA A/B/C
- Conducted IAW FAA Letter of Agreement
 - NOTAM published at least 48 hours in advance
 - NVG ops continuously monitored by radar
 - Operations restricted to 1,500' above radar limits
 - 4,000' MSL in Truman C / 8,000' MSL in A/B
 - Pilots must monitor radar frequency
- Contact RAPCON 127.45



B-2 Spirit Stealth Bomber



- Length: 69 ft
- Width: 172 ft
- Height: 17 ft
- Color: Dark Grey
- Max TO Weight: 400,000 lbs
- Normal Approach Speed: 150 kts
- Difficult to see edge on
- Typically 2000-4000 ft MSL w/in 20NM of Whiteman at IFR altitudes





B-2 SPIRIT





B-2 SPIRIT





T-38 Talon



- Length: 46 ft
- Width: 23 ft
- Height: 13 ft
- Weight: 12,000+ lbs
- Color: Charcoal Gray
- Normal Cruise Speed: 300 kts
- Normally seen 1000 ft –FL230 w/in the lateral confines of Truman A/B (sometimes C)
- Typically fly VR 1525 @ 1000 ft AGL
- Stereo routes to SGF, FOE, MCI





T-38 Talon





A-10 Thunderbolt



- Length: 53 ft
- Width: 58 ft
- Height: 15 ft
- Weight: 50,000 lbs
- Color: Light Grey





A-10 Area Familiarization



A-10 LATN Area Familiarization

LATN (Low Altitude Tactical Navigation) Training is critical flight training for A-10s -- designed to allow pilot and aircraft to defeat enemy ground/air weapons systems and survive during wartime by staying proficient at low altitude maneuvering.

During this training A-10's can perform heavy maneuvering -- flying at low altitudes and relatively high airspeeds throughout the defined areas:

- LATN West** -- Northeastern Kansas
- LATN South** -- Most of Arkansas (Just North of Texarkana)
- LATN East** -- Central Missouri

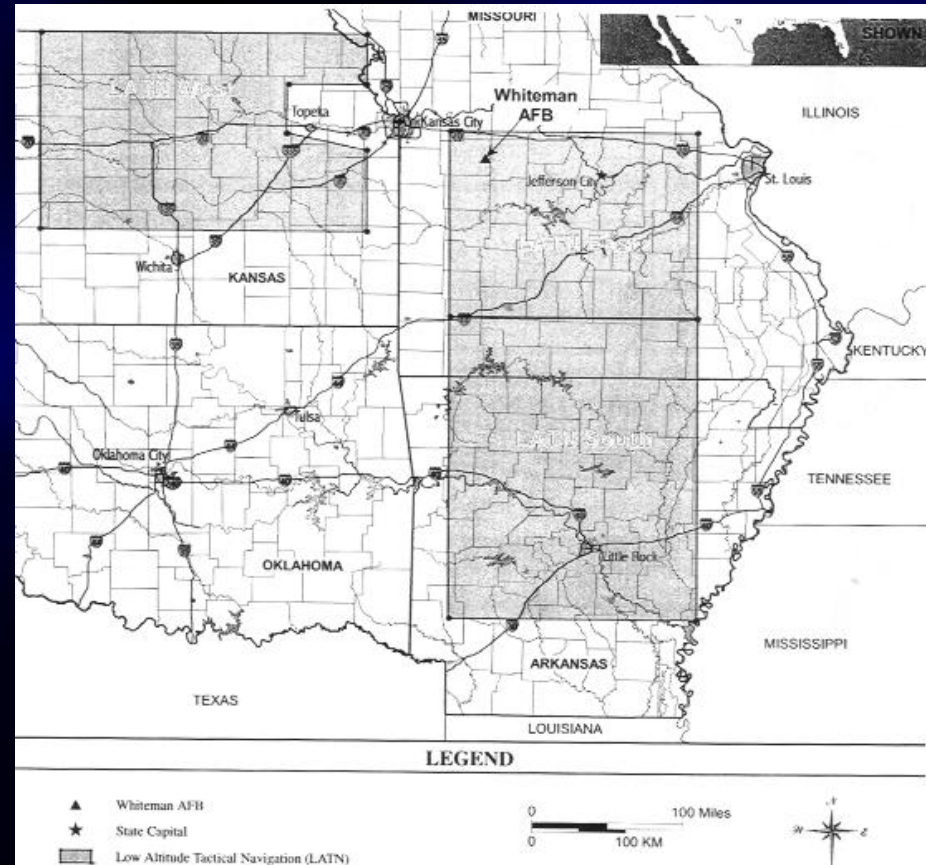
ACTUAL BOUNDARIES:

* Not including Kansas City Class B Airspace

Avoiding populated areas/airfields and within these areas A-10s can be operated as low as 300' AGL and at speeds exceeding 300 KIAS.

During operation within these areas when not in contact with controlling agencies, A-10s monitor UHF Freq 255.4 (FSS UHF Frequency).

As you can see, the LATN Area is extensive in scope and size and is intended as such to enhance training while decreasing the repetitive exposure footprints to rural locations.



Area	Northern	Southern	Eastern	Western
LATN West*	N 40°00'	N 38°00'	W 095°00'	W 099°00'
LATN East	N 39°00'	N 37°00'	W 091°00'	W 094°00'
LATN South	N 37°00'	N 34°00'	W 91°00'	W 094°00'



AH-64 Apache

- Normal Cruise Alt: 2000'
- Normal Cruise Airspeed: 130 kts
- Color: Dark Green





AH-64





AH-64



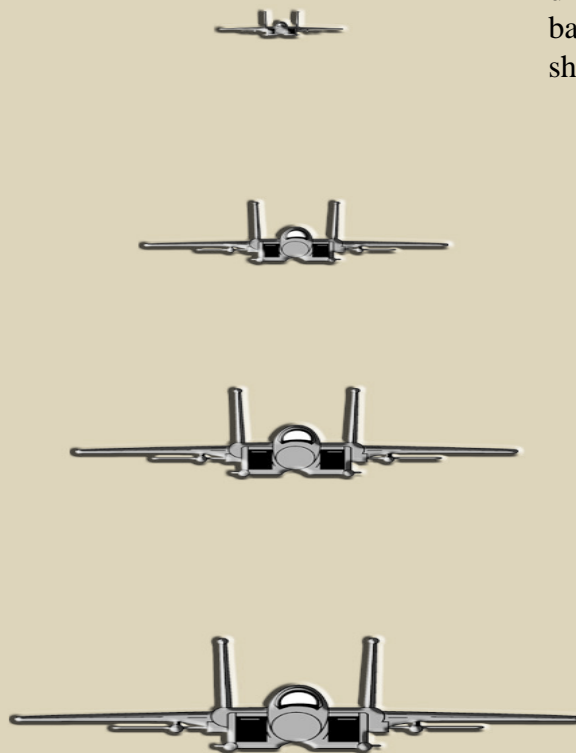
Separation	Time to Impact	
Closure:	600 MPH	360 MPH
5 Miles	30	50
4 Miles	24	40
3 Miles	18	30
2 Miles	12	20
1 Mile	6	10
.5 Mile	3	5

Critical Seconds

Step Back 12 Feet!

From that distance, the silhouettes represent the EAGLE as it might appear to you from the distances indicated on the table to the left. The time required to cover these distances is given in seconds for combined speeds of 360 and 600 miles per hour.

The red blocks on the lower left mark the danger area for the speed quoted (when on a direct collision course). This danger area is based on the recognition and reaction times shown in the table below.



Obtain Visual	0.1
Aircraft Recognition	1.0
Collision Course Awareness	5.0
Decision to React With Control Input	4.0
Muscular Reaction	0.4
A/C Lag Time	2.0
Total (seconds)	12.5



MACA CONCLUSION



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- MCI Approach Control Airspace
- IR 527 & VR 1525
- Restricted Area 4501 (Ft. Leonard Wood)
- Whiteman Approach Control Airspace
- Truman MOA
- Whiteman Aircraft



Contact Information



- Flight Safety Office
 - (660) 687–6928
 - 509bwsef@whiteman.af.mil
- Whiteman AFB RAPCON
 - (660) 687–4878
- Whiteman AFB Tower
 - (660) 687–4877
- Useful Links
 - <http://www.seeandavoid.org/>
 - <http://www.usahas.com/>