

#### ACADEMY FLIGHT TRAINING CENTER IN-FLIGHT GUIDE (IFG)

PURPOSE: Per DAFMAN34-152, 6.6.1., the use of locally developed in flight guides is highly encouraged. The information contained in this Academy Flight Training Center (AFTC) In Flight Guide (IFG) supplements, but does not replace, the procedures contained within DAFMAN34-152 and AFTC Standard Operating Procedures (SOPs) and is designed for both local and cross-country use.

**RESPONSIBILITY:** The Chief Flight Instructor at AFTC is responsible for the evaluation of suggested changes, corrections, or deletions to this publication. Any pilot may submit suggestions for revision via AF Form 847 to the AFTC Manager. Final approval or disapproval will be made by the Chief Flight Instructor.

POLICY: This IFG is available for purchase by all AFTC members. It is designed to supplement pilot directives and guidance. Use of this pilot aid is at the sole discretion of the Pilot in Command (PIC) and AFTC assumes no responsibility for the accuracy of information contained herein. The PIC is ultimately responsible for the safe conduct of flight and ensuring the flight is conducted in compliance with all FARs, instructions, current flight publications, and local guidance.

#### CHANGES

Post all changes IAW accompanied Pilot Information File and annotate below.

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#### **GENERAL FLIGHT BRIEFING GUIDE**

Items with an asterisk (\*) may be briefed as "Standard"

- 1. GENERAL
  - a. PIC/Call Sign/Tail Number
  - b. IMSAFE (<u>I</u>llness, <u>M</u>edication, <u>S</u>tress, <u>A</u>lcohol, <u>F</u>atigue, <u>E</u>motion)
  - c. PIF and Safety Meeting Attendance
  - d. Risk Management Considerations and Mitigation Plan
  - e. Aircraft Fuel State, Weight and Balance, MX Status, TOLD
  - f. Crew Resource Management (CRM) (see page 6.)
- 2. MISSION
  - a. Objective
  - b. Lesson/Flight Requirements
  - c. Takeoff Time
  - d. Weather-Existing, Forecast, Required
  - e. NOTAMs/TFRs
  - f. Bird Activity for Flight Route
- 3. TAKEOFF/DEPARTURE
  - a. Planned Runway
  - b. \*Departure Routing
- 4. AREA WORK/SATELLITE AIRFIELD OPERATIONS
  - a. Assigned Area
  - b. Maneuver Profile/Parameters
  - c. Area Simulated Forced Landings (Ground Elevation)
  - d. \*Satellite Airfield Operations/Airfield Summaries
- 5. RECOVERY/PATTERN WORK
  - a. \*Corridor/Arrival Routing
  - b. \*Pattern Entry
  - c. \*Pattern Profile
  - d. \*Wake Turbulence/Spacing
  - e. \*Pattern Altitudes
- 6. ADDITIONAL INFORMATION
  - a. \*Clearing/Areas of Potential Conflict
  - b. \*Checks/Radio Procedures
  - c. \*Transfer of Aircraft Control
  - d. Required Fuel for Mission
  - e. \*Alternate Mission
- 7. EMERGENCY PROCEDURES
  - a. \*Crew Responsibilities
  - b. Takeoff Emergencies
  - c. \*Emergency Ground Egress
  - d. \*Physiological Incident
  - e. Emergency Divert Airfields
  - f. EP of the Day (see page 6)
- 8. QUESTIONS?

### **CRM BRIEFING/DEBRIEFING GUIDE**

ITEM	Α	В	С
	CRM Skill	Positive Factors	Negative Factors
1	Communication	Clear, concise, listens, interprets, efficient, and gets or gives feedback Interrupts, withholds, discounts, is ambiguou mumbles	
2	Crew / Flight Coordination	Leads, identifies roles and expectations, sets tone, respects, encourages, and is assertive	Judges, ridicules, overreacts, ignores, imposes, or accepts error
3	Mission Analysis	Is organized; clearly assesses and defines mission, environment, aircraft, and situation; continues to evaluate throughout mission, identifies unforeseen threats and mitigates; covers contingencies; and thoroughly debriefs lessons learned	Neglects; is rushed, incomplete, or vague; lectures; or ignores; fails to plan for contingencies; does not identify need for mission adjustment; fails to discuss responses and lessons learned
4	Risk Management / Decision Making	Identifies and assesses problems, explores solutions, makes appropriate decision, and involves and informs crew	Avoids delays, vacillates, argues, or fails to consider consequences of decision
5	Situational Awareness	Anticipates, monitors, prevents loss, recognizes own or others loss	ls disoriented, confused, lost, or fixated
6	Task Management	Prioritizes, assign tasks, creates time, plans, delegates, and uses checklist discipline	ls rushed, overloaded, or complacent; mis-prioritized

### EP Of The Day

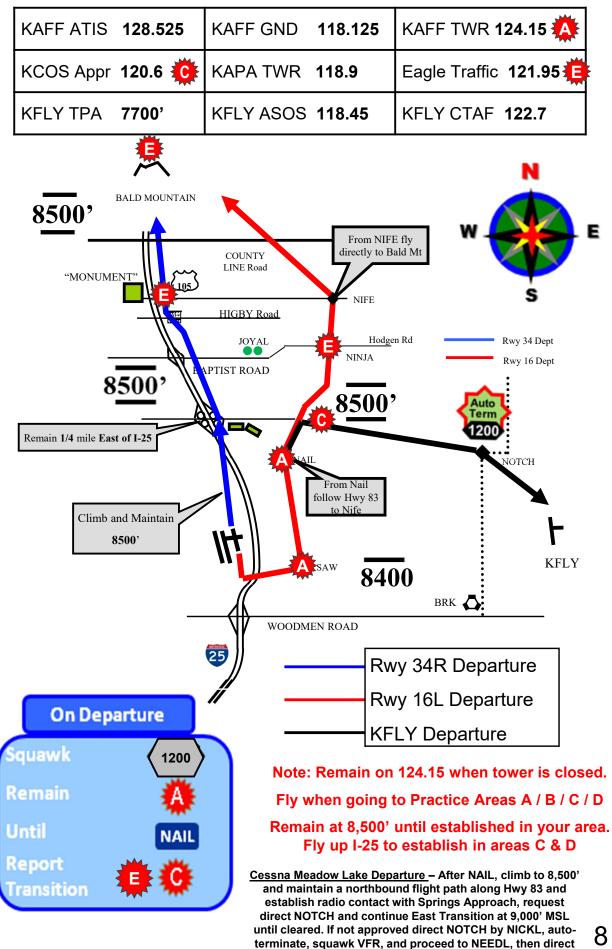
<ol> <li>Engine Fire on the Ground/During Start</li> <li>Departing a Prepared Surface</li> <li>Emergency Ground Egress</li> <li>Takeoff Abort</li> <li>Engine Failure Immediately After Takeoff</li> <li>Zero or Negative Ammeter</li> <li>High Ammeter</li> <li>Electrical Fire</li> <li>Smoke and Fumes Elimination</li> <li>Spin Recovery / Prevent</li> <li>Structural Damage / Controllability Check</li> <li>Lost Procedures</li> <li>NORDO (military and civil airfield)</li> <li>Diversion</li> <li>High Oil Temperature</li> <li>Hot / Cold Weather Ops</li> </ol>	<ul> <li>17. High and Low Oil Pressure</li> <li>18. Asymmetric Flaps or Flap Failure</li> <li>19. Fuel System Starvation</li> <li>20. Pitot Static Malfunction</li> <li>21. Throttle Linkage Failure</li> <li>22. Engine Fire During Flight</li> <li>23. Physiological Incident</li> <li>24. Engine/Impending Engine Failure</li> <li>25. Rough Running Engine</li> <li>26. Emergency Engine Restart / Air start</li> <li>27. Forced Landing</li> <li>28. Landing with a Flat or Defective Tire</li> <li>29. Brake Failure</li> <li>30. Fuel Leak or High RPM or Loss of RPM</li> <li>31. Vacuum Malfunction or Starter Malfunction</li> </ul>
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### **TEXTUAL DEPICTION OF WAYPOINTS**

	TEATOAL DEFICTION OF WATFOINTS	
ANVIL	The intersection of Falcon Highway and JD Johnson Road making up the SE corner of a housing development east of a dry creek bed.	
BIT	The southwest corner of the junkyard located southeast of Peyton.	
СНҮМТ	(Cheyenne Mountain). The parking lot leading into Cheyenne Mountain.	
CLAMP	The "T" intersection of Hopper Road and Bradshaw Road.	
DRAKE	Reporting point for IFT into Bullseye, located 10 NM SW of C090.	
DRILL	Intersection of E Smith Rd/County Rd 8 & East Cherry Creek Rd approx. 3 NM E of CO Hwy 83.	
GOGs	(Garden of the Gods) Rock Quarry 1.5 NM W of Garden of the Gods Rock Formation and .5 NM N of Hwy 24.	
JOYAL	Two green water towers on Baptist Road approximately 2 NM E of I-25.	
MIDWY	(Midway). FAA VFR reporting pt 1.5 NM SE of the Pikes Peak Int'l Raceway (PPIR).	
NAIL	1/4 NM W of Shoup Road and CO State Hwy 83 intersection.	
NEEDL	(Needle). Intersection of Hodgen Rd & power lines approx 1.75 NM E of Vollmer Road.	
NGATE	(North Gate). Intersection of extended runway centerline & N. Gate Blvd.	
NICKL	(Nickel). The intersection of County Road 74 and power lines.	
NIFE	(Knife). The intersection of CO State Hwy 83 and CO State Hwy 105.	
NINJA	The intersection of CO State Hwy 83 and Hodgen Road.	
NOSE	The dead-end of Hodgen Road into Eastonville Road.	
NOTCH	The 90-degree bend in power lines moving N and E.	
NUGET	(Nugget). The intersection of East Palmer Divide Ave and Black Forest Rd.	
RSVOR	(Reservoir). The center of Calhan Reservoir.	
SAND	The intersection of CO State Hwy 94 and North Peyton Hwy.	
SAW	The intersection of Union Boulevard and Lexington Drive.	
SHDOW	(Shadow). The intersection of CO State Hwy 115 and Titus Boulevard.	
SHRVR	(Schriever). Approx 1/2 NM S of Schriever Air Force Base on Enoch Road.	
SLAM	The easternmost corner of Prospect Lake.	
SLEDG	(Sledge). The E parking lot of UCCS.	
SOKET	(Socket). The intersection of Nevada Avenue and Austin Bluffs Pkwy.	
SQURL	A reporting point for IFT into Bullseye, located 5NM SW of C090.	
SURGE	Fountain Valley Power Facility 1 NM SW of MIDWY.	
Initial R16L	Abeam the north edge of the Great Wolf Lodge on extended runway centerline 1 NM from the approach end of Rwy 16L	
Initial R34R	Abeam I-25 and Academy Blvd interchange, just south of South Gate Boulevard on extended $7$ runway centerline. 1 NM from the approach end of runway 34R	

15 MAY 24 (Change 1)

## **AERO CLUB NORTH DEPARTURE**



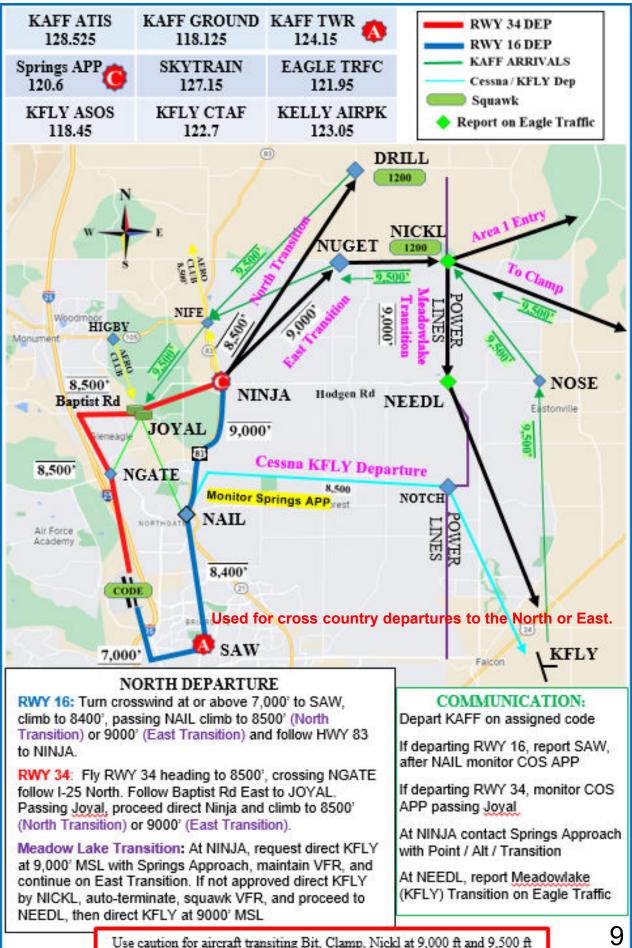
8

KFLY at 9,000' MSL.

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# 557 FTS NORTH DEPARTURE

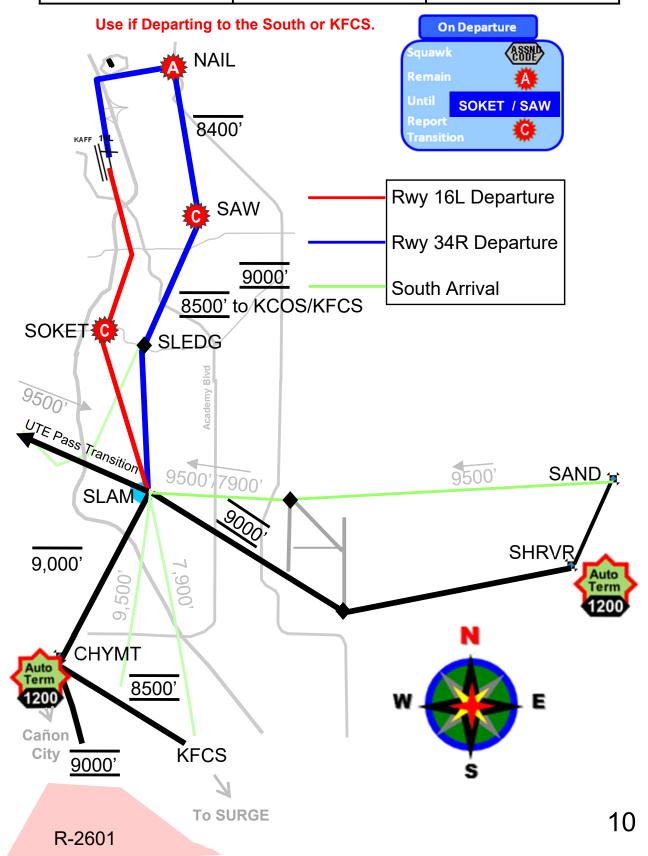


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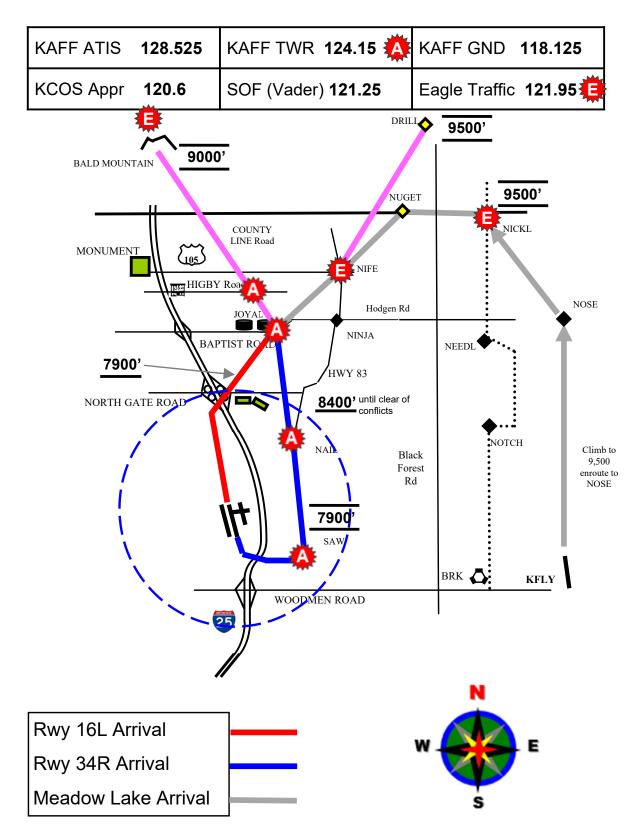
## **AERO CLUB SOUTH DEPARTURE**

KAFF ATIS	128.525	KAFF GND 118.125	KAFF TWR 124.15 🌺
KCOS ATIS	125.0	KCOS Appr 120.6 🔅	KCOS Tower 119.9
Eagle Traffic	121.95	KFCS TWR 125.5	Sky Train <b>127.15</b>



01 JAN 24 AFTC In-Flight Guide 557 FTS SOUTH DEPARTURE KAFF GROUND KAFF TWR KAFF ATIS RWY 34 DEP A. 128.525 118.125 124.15 RWY 16 DEP KCOS ATIS Springs TWR Springs APP KAFFARR 119.9/133.15 120.6 125.0 Squawk SKYTRAIN EAGLE TRFC Airburst MOA **Report on Eagle Traffic** 127.15 121.95 126.2 SOUTH DEPARTURE 25 Black Forest RWY 34: Turn crosswind at or above 7,000' to NAIL. NORTHGAN NAIL When no traffic conflict exists, climb to 8,400'. Fly along 7.000\* outside downwind to SAW. Leaving SAW for SLEDG, Powers Blad climb to 8,500' (Springs/Butts transition) or 9,000' (East/Ute/Canyon City/Surge transition). At SLEDGE, CODE proceed direct SLAM. BRIA RWY 16: Fly RWY 16 HDG until crossing Woodmen Rd SAW then climb to 8,500' or 9,000' depending on transition. d At Woodmen Rd, proceed direct SOKET then SLAM. Woodmen ] 9.000' or KCOS: Climb and maintain 8,500 ft on South Dept. SOCKET Remain South Dep until directed otherwise. 8.500' to KCOS/KFCS KFCS: Climb and maintain 8,500 ft on South Dept. After SLAM, proceed CHYMT, expect handoff to KFCS SLEDG (21) SPR Tower at CHYMT. East Transition: At SOKET or SLEDG, climb to 9,000'. Cimarron Hill At SLAM, turn Southeast to overfly the approach end of LORADO £. NGS KCOS 35R. When East of the airport, climb to 9,500' 24 (94) SAND (94) Colorado Colorado SLAM Springs 9,500 9,500\* 7,900\* 24 1.000° AGL ADO 000 9,500\* GS East Transition SHRVR 9.000. Stratmoor 1200 Security-Widefield 21 COMMUNICATION: Depart KAFF on assigned code CHYMT At SAW or SOKET contact Springs Approach with 25 Point / Alt / Transition or "Patterns Springs w/ ATIS" 1200 (16) For KFCS, report "Butts Transition" at SAW or Roc KFCS SOKET. Remain on assigned squawk while in the eek KFCS Pattern unless directed otherwise. 9.000 Fountain Begin Squawking VFR as depicted. 0000 REMAIN BETWEEN R-2601 AND I-25 R-2601

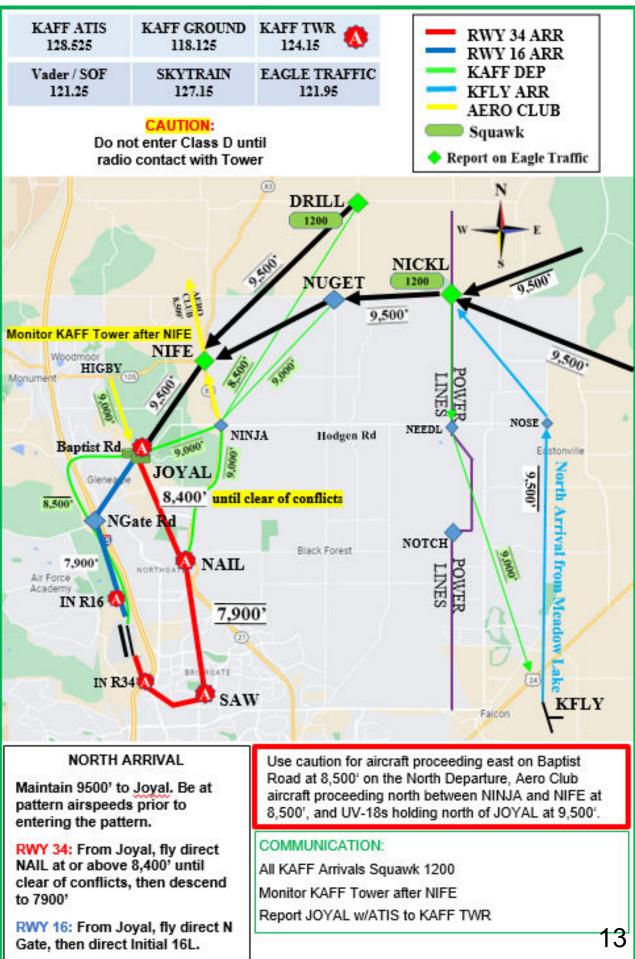
## **AERO CLUB NORTH ARRIVAL**



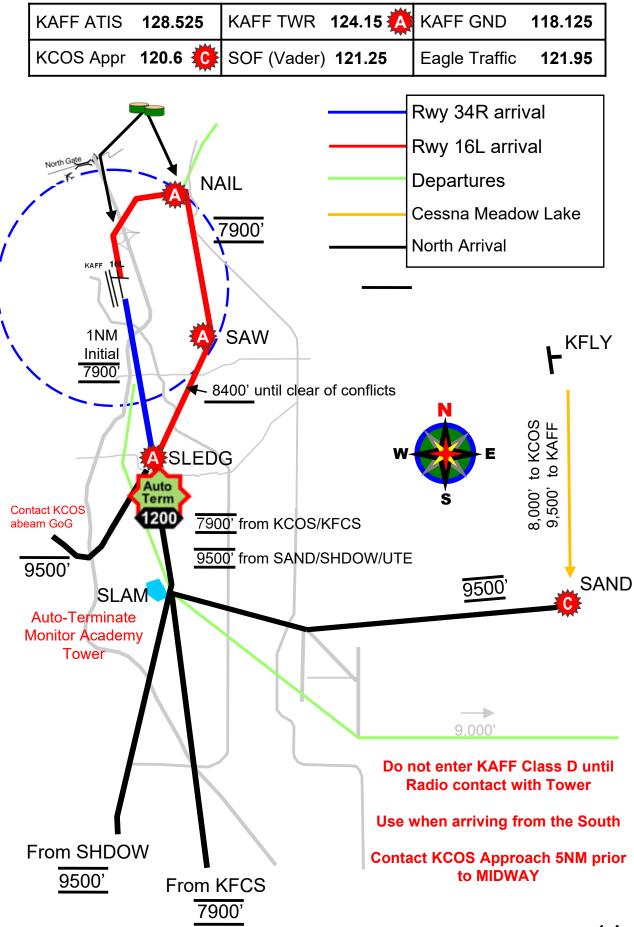
Use when Arriving from Practice Areas A / B / C / D or KFLY. Remain over I-25 at 9,000' when transiting through areas. AFTC In-Flight Guide

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# 557 FTS NORTH ARRIVAL

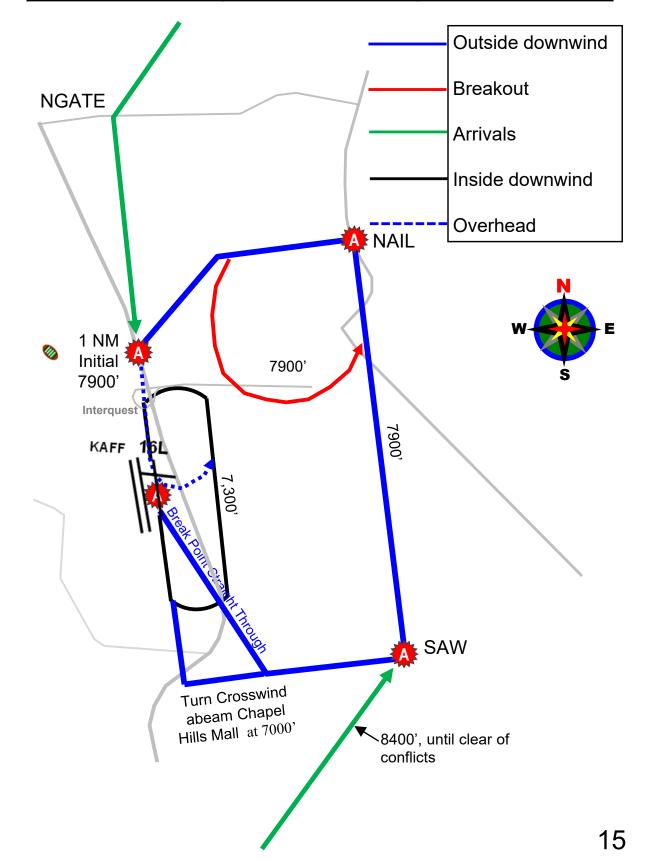


## **AERO CLUB SOUTH ARRIVAL**



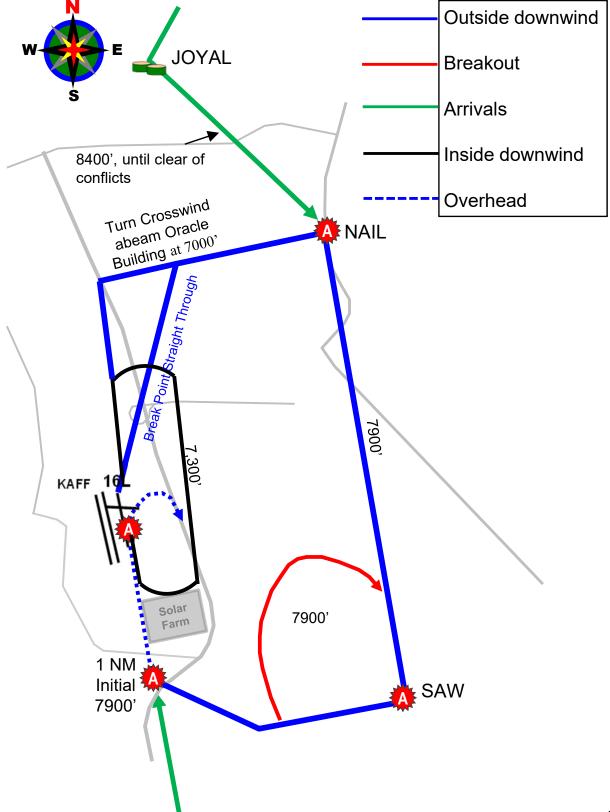
### PATTERN PROCEDURES RWY 16L

KAFF ATIS	128.525	KAFF TWR	124.15	KAFF GND 118.125 🌺
SOF (Vader)	121.25	Skytrain	127.15	KCOS Apch 120.6
Field Elev	6572'	Inside Pattern	7300'	Outside Pattern <b>7900</b> '

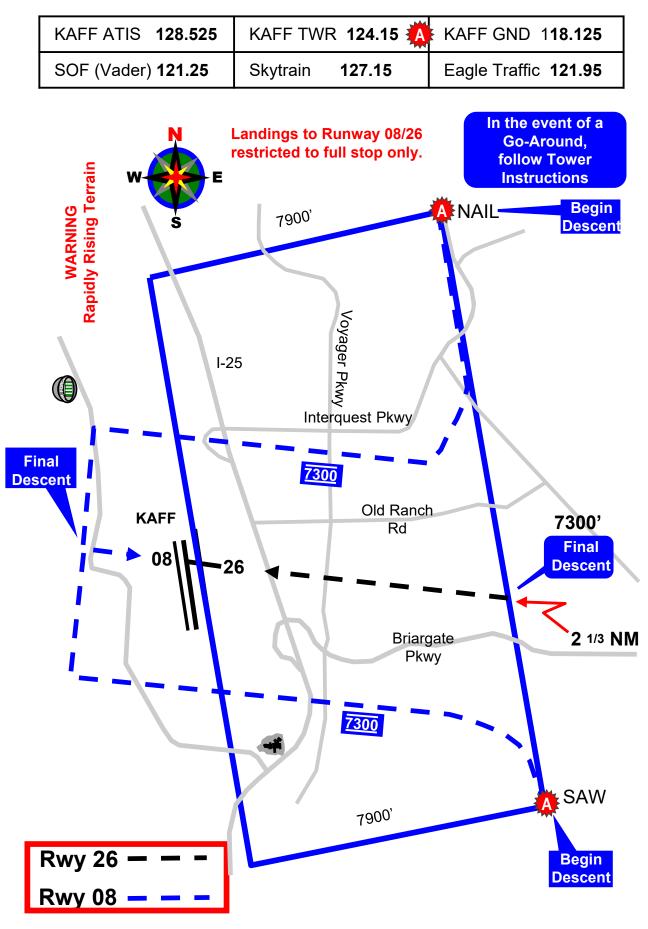


### PATTERN PROCEDURES RWY 34R

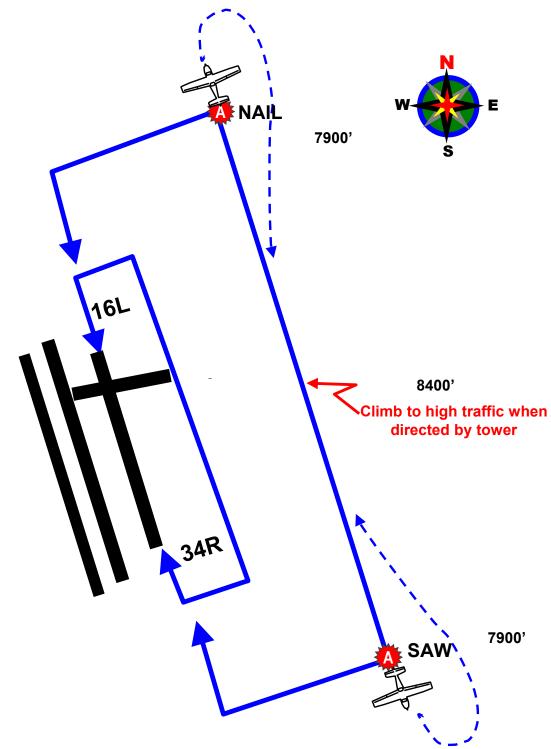
KAFF ATIS	128.525	KAFF TWR	124.15	KAFF GND 118.125
SOF (Vader)	121.25	Skytrain	127.15	KCOS Apch 120.6
Field Elev	6572'	Inside Pattern	7300'	Outside Pattern <b>7900</b> '



## RECOVERY TO RWY 08 / 26



### **RUNWAY CHANGE PROCEDURES**



<u>"Five Minutes To Rwy Change":</u> Inform Tower of your intentions (full stop, departing the pattern, or remaining in the pattern). Aircraft on inside downwind will expect a low approach and negative closed to High Traffic unless instructed otherwise.

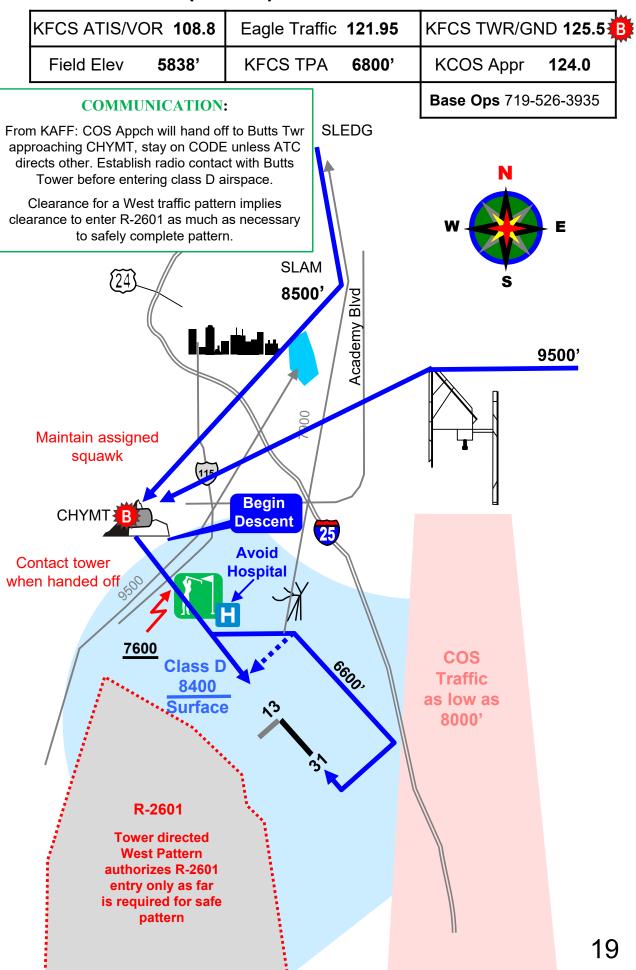
### Outside Downwind climb to High Traffic (8,400' MSL). Follow High Traffic ground track. Academy Tower will identify aircraft to lead runway change. Outside

Downwind aircraft will overfly control point and begin a descending teardrop east to rejoin Outside Downwind at 7,900'.

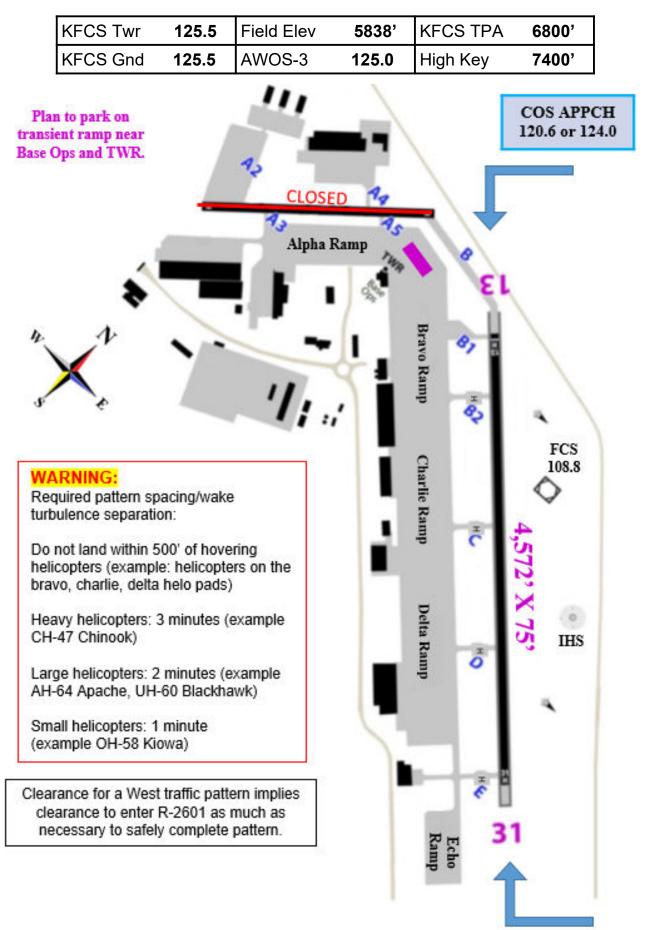
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### **BUTTS AAF (KFCS) ARRIVAL PROCEDURES**



## **BUTTS ARMY AIRFIELD (KFCS)**



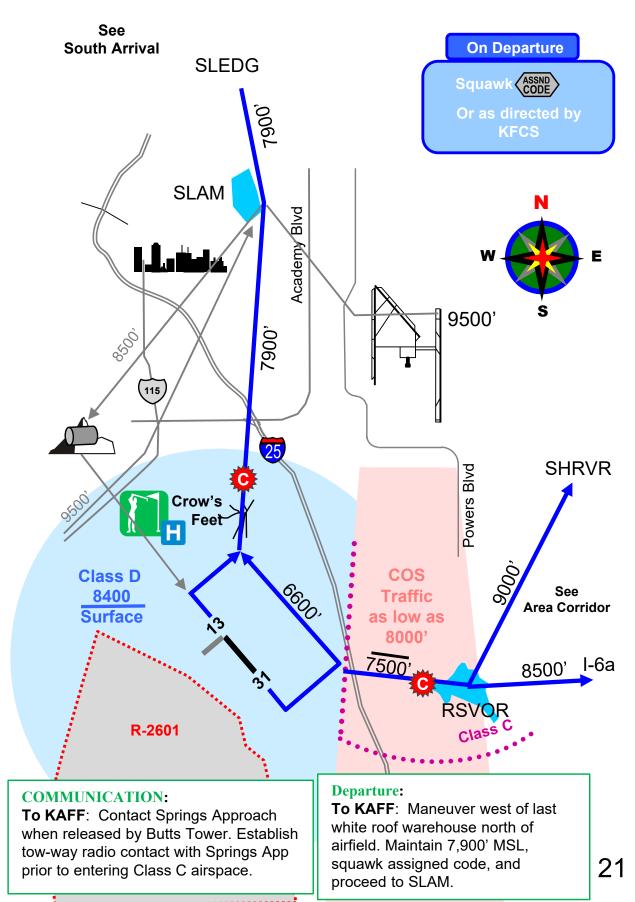
Note: IFT aircraft fly slower approach speeds.

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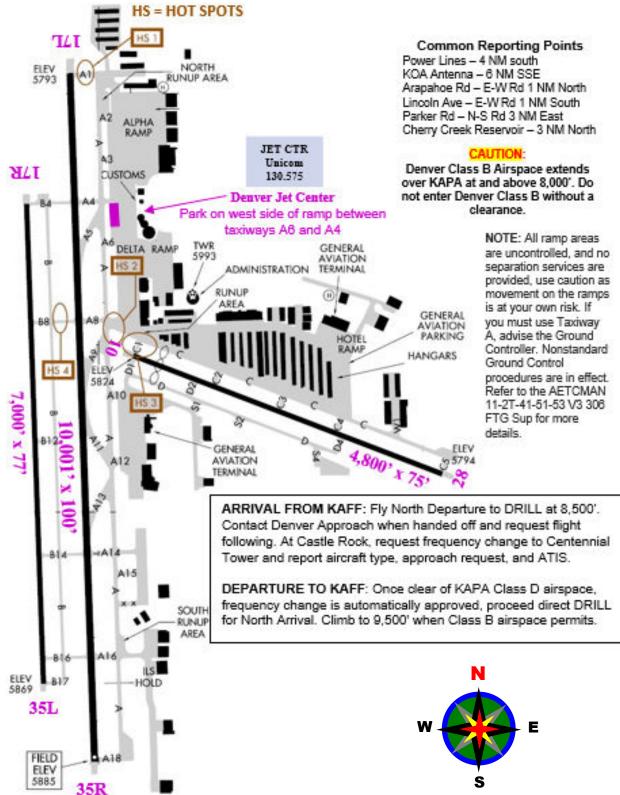
### **BUTTS AAF (KFCS) DEPARTURE PROCEDURES**

AWOS-3	125.0	KFCS GND/TWR	125.5	KCOS ATIS	125.0	
Field Elev	5838'	TPA 6800'		KCOS Apch	124.0 🕴	¢

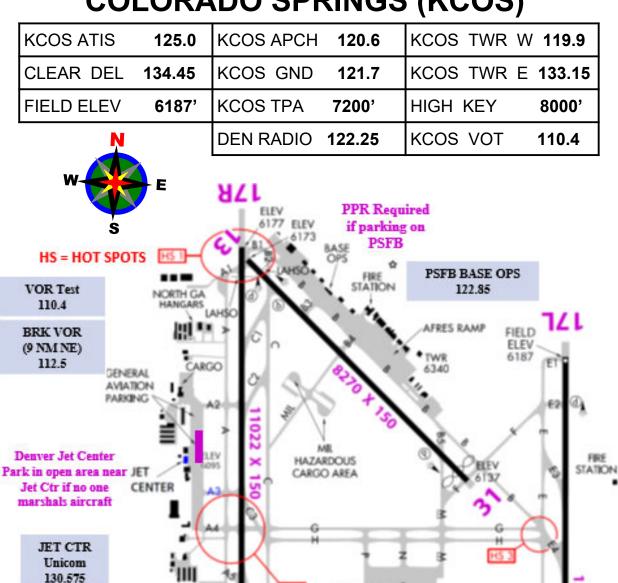


## **CENTENNIAL AIRPORT (KAPA)**

KAPA ATIS	120.3	KAPA TWR	118.9	KAPA GND	121.8
DEN Apch/Dep	132.75	DEN Radio	122.2	DEN VOR	117.9
Field Elevation	5885'	KAPA TPA	6800'	KAPA Clear Del	128.6
				KAPA VOT	108.2



## **COLORADO SPRINGS (KCOS)**



TERMIN

ARRIVAL FROM KAFF: Obtain KCOS ATIS prior to takeoff from KAFF (if able). Fly the South Departure/Springs Transition. State intentions with ATIS upon initial contact with Springs Approach and follow controller instructions.

35L

ELEV 6045

ARRIVAL FROM KFLY: Climb to 8,000'. Obtain KCOS ATIS and squawk assigned code. Contact Springs Approach with intentions and ATIS.

SOUTH GA

If departing from KCOS, get a VFR clearance from

Clearance Delivery before requesting taxi.

DEPARTURE TO KAFF: Springs Approach will vector or assign headings toward SLAM to join the South Arrival. Climb and maintain 7,900'. Exercise caution for aircraft on the South Arrival from KFCS at 7,900' and SAND at 9,500'.

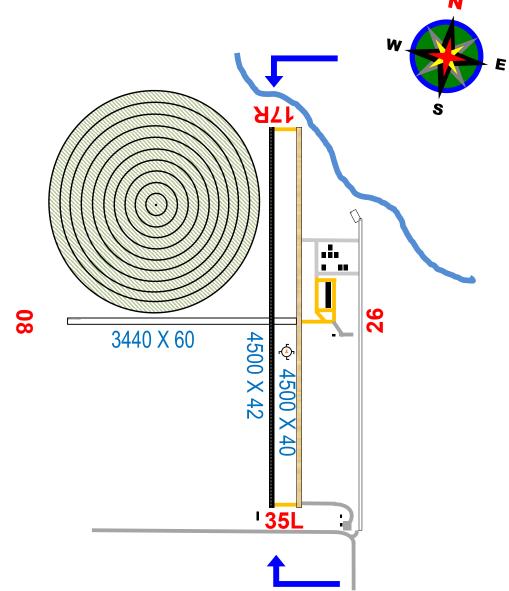
DEPARTURE TO AREAS: Request VFR to the east at 9,500'. Follow controller instructions to join appropriate routing and altitude. Remain on Springs Departure frequency until SHRVR. ELEV 6103

35R

## **COLORADO SPRINGS EAST (CO4)**

Bullseye ASOS	121.425	Eagle Traffic	121.95	CO49 CTAF	122.9
FIELD ELEV	6145'	CO49 TPA	7100'	BRK VOR	112.5

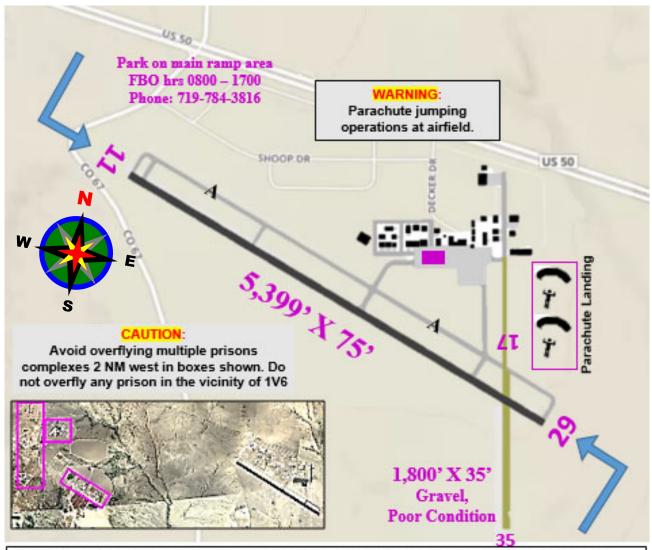
### EMERGENCY USE ONLY



### **EMERGENCY USE ONLY**

### **CANON CITY / FREMONT COUNTY AIRPORT (1V6)**

1V6 AWOS	120.025	1V6 CTAF	122.8	Eagle Traffic	121.95
Field Elev	5442'	1V6 TPA	6500'	DEN Appch	120.1



ARRIVAL: Confirm Airburst MOA status on Airburst 126.2, KFCS Tower 125.5, or Denver Ctr 128.37. Fly South Departure, Canyon City or Surge Transition. Remain VFR and clear of R-2601. Report 10 NM from airfield on CTAF.

DEPARTURE: If Airburst MOA is not active, fly South Arrival to Shadow at 9500' MSL. If Airburst MOA is active, fly South Arrival to Surge at 9500' MSL. CAUTION: Remain clear of R2601A at all times. Squawk assigned code and contact Springs Approach at SHDOW or 5 nm South of SURGE with intentions.



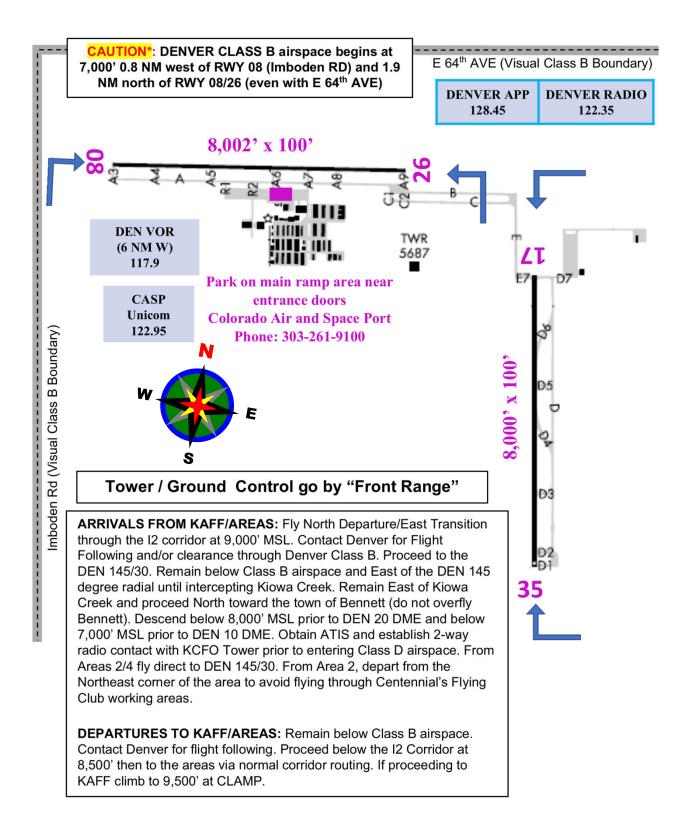
#### CAUTION:

Pueblo IFT has two training areas 28-29 (8,000 ft to 9,000 ft MSL) approximately 5 nm SW of 1V6. Use caution and avoid flight into their training airspace if DA-20s are present. IFT monitors Tiger Traffic frequency.

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### **COLORADO AIR AND SPACE PORT (KCFO)**

KFTG ATIS 119.025	DEN Apch 128.25	TWR 120.2/122.95
KFTG GND <b>124.7</b>	DEN Radio <b>122.35</b>	DEN VOR 117.9
Field Elev 5515'	TPA 6500'	HIGH KEY 6800'*



## LIMON MUNICIPAL AIRPORT (KLIC)

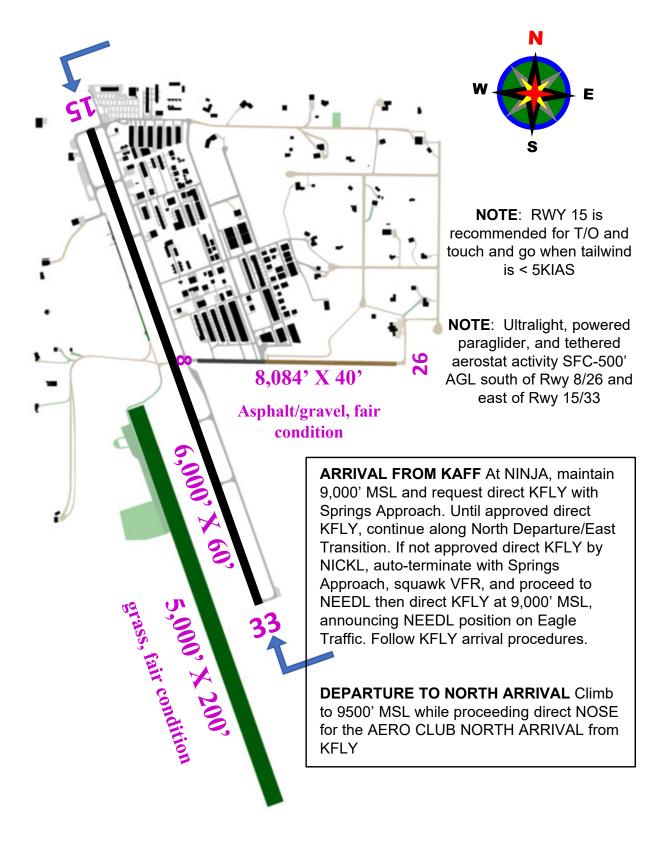


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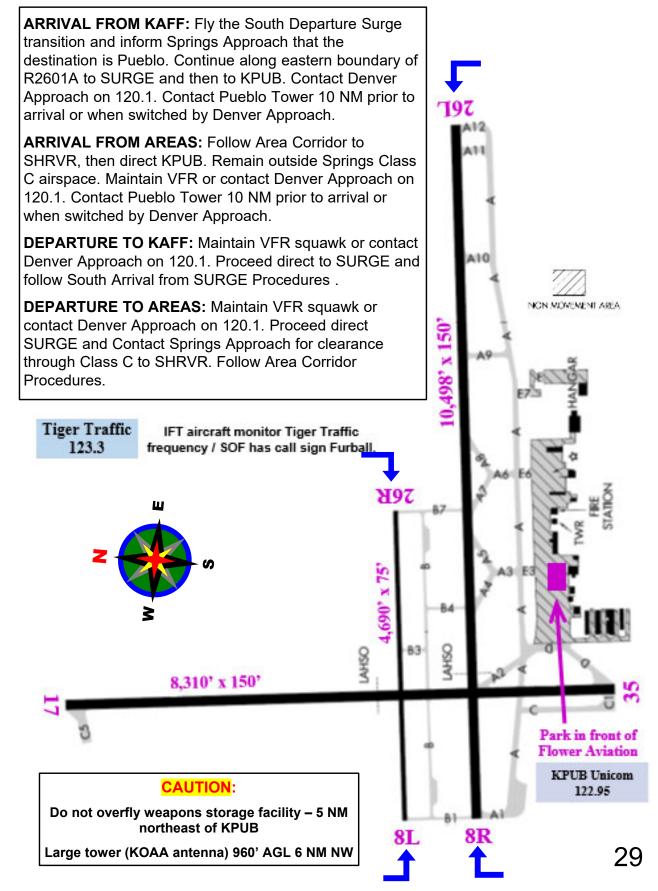
### MEADOW LAKE AIRPORT (KFLY)

UNICOM	122.7	FIELD ELEV	<b>6878</b> '	KFLY TPA	7800'
ASOS	118.45	KCOS Apch	120.6	Eagle Traffic	121.95



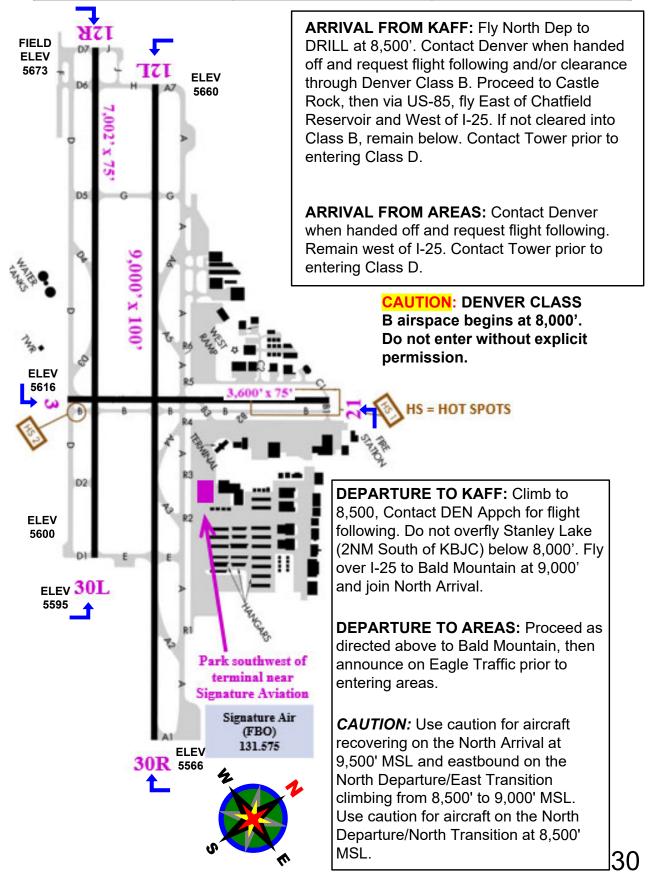
## **PUEBLO MEMORIAL APT (KPUB)**

KPUB ATIS	125.25	DEN Apch	120.1	KPUB TWR	119.1
TWR 8L/26R	123.675	IFS SOF (Furball)	123.3	PUB VOR	116.7
KPUB GND	121.9	KPUB TPA	5700'	Field Elev	4729'



## **ROCKY MOUNTAIN METRO (KBJC)**

KBJC ATIS	126.25	KBJC Clnc Del	132.6	KBJC TWR	118.6
KBJC GND	121.7	DEN APCH	125.12	BJC VOR	115.4
FIELD ELEV	5673'	KBJC TPA	6700'	Signature Air	131.575



## **CENTER and WEST RUNWAY OPS**

- USE EXTREME CAUTION for pedestrians in the midfield / tower area
- Altitude: 7,500' MSL
- Sailplane and jump ops will not be in progress

#### **Center Runway Operations**

- When departing off the center runway, auto-switch from Skytrain to Academy Tower and state intentions. Unless instructed otherwise, climb straight ahead on departure leg.
- All landings will be to a full stop unless the 94<sup>th</sup> is not operating
- Plan to land no further than 1,500' down the runway
- Anticipate exiting taxiway J/G for Rwy 16C; Rwy 08/26 for Rwy 34C
- For go-around, fly straight ahead on runway centerline, follow Tower instructions

#### West Runway Operations

Not Approved; Runway less than 50' wide

### PATTERN SATURATION PROCEDURES

- Does not include departing aircraft
- Tower will broadcast "Pattern Full", "Pattern Saturated", or "Pattern Normal" in the blind
- Pattern Full: 12 aircraft Request full-stop / departures encouraged
  - Upon hearing the "Pattern Full" broadcast, 557 FTS crews in the east pattern capable of accepting a full stop landing or a departure from Class D airspace shall notify Academy Tower immediately of their intention
- **Pattern Saturated:** controller workload is reached, and training effectiveness is diminished (Typically 9-11 aircraft)
  - Request full-stop / departures encouraged
  - Expect Ops Sup/SOF directed full stops
  - ONLY IPs on tower frequency (unless cadet solo)
  - No closed requests if > 1 NM on upwind leg
- Pattern Normal: informative call by Tower and deletes any "Pattern Saturated" restrictions. Pattern normal is typically 8 or less aircraft in the pattern

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## **EMERGENCY PROCEDURES**

#### 1. GENERAL:

a. **TERMS: EMERGENCY:** In-flight condition making safe flight uncertain or which presents danger to aircrew/aircraft.

b. **DECLARATION:** Notify controlling agency of intentions. When time permits, relay the following information:

- (1) Aircraft Call Sign, Type, Tail Number
- (2) Position and Altitude
- (3) Nature of Emergency
- (4) Souls on Board
- (5) Fuel Remaining (hours and minutes)
- (6) Intentions (desired runway and ETA)
- (7) Assistance Required
- (8) Squawk Emergency Code 7700 (if warranted)
- c. If time and conditions permit, contact the SOF.
- d. Wait for termination of emergency by on-scene commander

## NOTE: THE PILOT, SOF, OR TWR MAY UPGRADE THE STATUS TO EMERGENCY AT ANY TIME.

#### 2. REPORTABLE INCIDENTS:

All emergencies or significant malfunctions must be debriefed by Aero Club safety, 306 FTG Safety and maintenance ASAP after landing. If the flight results in an unplanned termination off station, inform squadron supervision and 306 FTG Safety ASAP. The following are reportable, but other malfunctions may be included:

- (1) Loss of thrust precluding level flight.
- (2) Aircraft/Engine Fire.
- (3) Engine failure, required shutdown (in-flight or on the ground), or imminent failure.
- (4) Unexpected/Hazardous flight control problem.
- (5) Any bird strike (with or without damage).
- (6) Massive fuel leak.
- (7) In-flight loss of all pitot-static instruments.
- (8) In-flight loss of all gyro-stabilized instruments.
- (9) Dropped objects (Note location).
- (10) Physiological incident (excludes student airsickness)
- (11) Collision and near-collisions with other aircraft (Note location and time; notify controlling agency immediately).
- (12) Unintentional departure from controlled flight for any reason.
- (13) Unintended departure from runway.
- (14) Events where a crewmember executed an emergency checklist in response to smoke or fumes.
- (15) Other hazardous occurrences.

#### 3. ELECTRICAL FAILURE:

a. Once the situation is stabilized, follow the appropriate steps of the Radio Failure procedures outlined in section 4.

## **EMERGENCY PROCEDURES (CONT.)**

#### 4. RADIO FAILURE:

a. Check channel, circuit breakers, connections, stuck mic, volume, etc.

b. Transponder Procedures: Set code to 7600 for the rest of the flight.

c. **Attempt Transmissions:** In case of receiver failure only, make all normal calls "in the blind."

(1). Try calling KAFF Tower on cell phone. 719-333-3641

d. **Ground:** Turn the aircraft towards the tower and flash the landing light. Watch tower for light gun signals.

#### e. Airborne (Controlled Airfields):

(1) Remain outside the Class D Airspace (usually 5 SM from the airfield) or above the Class D Airspace (at least 2,500' above airport elevation) until the direction of landing can be determined using pattern traffic or wind indicators.

(2) Maneuver to join the traffic pattern.

(3) Run normal checklists.

(4) Rock wings on downwind and initial legs (USAFA only).

(5) Monitor tower for light gun signals on base and final.

(6) Continue to monitor tower frequency. In addition to light gun signals, tower will transmit instructions on tower frequency and VHF guard (121.5).

#### (7) Power failure, GTN 650 reverts to guard and does not display.

(8) Press and hold volume knob on GTN 650 to activate 121.5

#### f. Uncontrolled Airfields:

- (1) Remain 500' above pattern altitude while trying to determine landing runway using pattern traffic or wind indicators.
- (2) Maneuver to join the traffic pattern and land.
- (3) Run normal checklists.

#### USE EXTREME CAUTION. WATCH FOR TRAFFIC CONFLICTS.

ATC LIGHT GUN SIGNALS					
COLOR & TYPE OF SIGNAL	AIRCRAFT ON THE GROUND	AIRCRAFT IN THE AIR			
STEADY GREEN	Cleared for takeoff	Cleared to land			
FLASHING GREEN	Cleared for taxi	Return for landing (to be followed by steady green at the proper time)			
STEADY RED	STOP	Give way to other aircraft and continue circling			
FLASHING RED	Taxi clear of the runway in use	Airport unsafe, DO NOT LAND			
	Return to starting point on airport	Not Applicable			
ALTERNATING RED & GREEN	EXERCISE EXTREME CAUTION ! !	EXERCISE EXTREME CAUTION ! !			

## **DIVERSION & LOST PROCEDURES**

- A. Determine if diversion is possible with available fuel
- B. Begin a climbing turn to divert field
- C. Contact ATC, if required
- D. Report Call Sign, Position, Fuel on Board and Destination
- E. Upon landing, call Aero Club SOF or Staff.

		Bearing/Dist	Dist from	C-'	172	C-	182
Airfield	VOR	From VOR	KAFF	ETE	Fuel Burned	ETE	Fuel Burned
KCOS	BRK 112.5	188 / 8.9 NM	12 NM	7 min	1.2 gal	7 min	1.4 gal
KFLY	BRK 112.5	076 / 3.0 NM	12 NM	7 min	1.2 gal	7 min	1.4 gal
KFCS	FCS 108.8	-	18 NM	11 min	1.8 gal	10 min	2.0 gal
KAPA	FQF 116.3	225 / 12.8 NM	36 NM	21 min	3.5 gal	19 min	3.8 gal
KPUB	PUB 116.7	252 / 3.2 NM	44 NM	26 min	4.3 gal	23 min	4.6 gal
KLIC	BRK 112.5	053 / 49 .3NM	57 NM	34 min	5.7 gal	30 min	6.0 gal

#### **Diversion Chart (See Notes)**

Notes:

- 1. All figures are approximate
- 2. Use full throttle for climb to 10,500' MSL
- 3. Cruise at max range airspeed (C-182, 2300 RPM, 19" MP, 115 KIAS) (C-172, 2,500 RPM, 100 KIAS)
- 4. Lean mixture per POH (C-182, at peak EGT)
- 5. No allowance for holding
- 6. Times are based on no wind
- 7. Route of flight for timing and fuel is assumed to be direct from overhead KAFF
- 8. Fuel calculated at 12 gal/hr for C-182 and 10 gal/hr for C-172

### LOST PROCEDURES

- **1.** <u>**Climb**</u> to 10,500' (or higher if in mountains) for better visibility (maintain VFR cloud clearances).
- 2. <u>Conserve</u> fuel Establish max endurance airspeed/power setting and lean the aircraft as required. Verify Fuel Remaining.
- 3. Tune in nearest navaid (ref. Denver Sectional), based on last known position. Attempt to identify major landmarks. Use GPS (if available) to plot latitude & longitude coordinates on sectional/in-flight chart. Use GPS Nearest Function to find nearest airport.
- <u>Confess</u> disorientation to Linebacker/Vader, ATC, or Flight Service. If unable contact, squawk 7700; transmit "Mayday" 3 times on VHF Guard 121.5.
- 5. If still lost, land before fuel is exhausted. Select good field, low approach to evaluate winds and surface, then land. Stay with aircraft unless help in sight. Phone Aero Club SOF; consider use of ELT/signaling devices.

### **DISCOVERY FLIGHT BRIEFING GUIDE**

Note: All discovery flights must be scheduled in Flight Circle. Ensure all civilian passengers complete a Covenant not to Sue (FORM 1585) prior to flying. Pilots are solely responsible for the safe and orderly conduct of the flight. The purpose of the flight is to introduce prospective pilots to aviation and all efforts should be made to made the passenger feel comfortable and confident in aviation.

#### 1. Prior to flight

- a. Complete Covenant Not to Sue
- b. Complete credit card form

#### 2. Overview of USAFA Aircraft and Flying Programs

- a. Soaring Operations Basic / Acro
- b. Tow planes Civilian contract
- c. Jump Operations UV-18B
- d. Powered Flight T-53 (SR-20)
- e. USAFA Flying Team T-51 (C-150)
- f. Flight Test Techniques T-41 R172E)

#### 3. Flight

- a. Medical status Student and CFI
- b. Cell Phones Silenced
- c. Personal dress considerations
- d. Risk Management Considerations
- e. CRM for further info, see page 6
- f. Call sign
- g. Takeoff time
- h. Sign out procedures
  - 1. WX/NOTAMs/Ops Notes PIFs
  - 2. Sign out
- i. Seat assignments, procedures, switches/levers, instruments
- j. Control actuation/flight characteristics
- k. Headset/communications
- I. Encourage photo and video taking

#### 4. Flight Operations

- a. Ramp Safety
- b. Foreign Object Damage
- c. Checklists/Radio Procedures
- d. Transfer of Aircraft Control
- e. Takeoff
- f. Departure
- g. Area Work
- h. Arrival/Pattern/Landing
- i. Clearing
- j. Additional Information

#### 5. Emergency Procedures/Boldface

- a. Ground Egress (seatbelt/shoulder harness, headset, doors, egress)
- b. Abort
- c. Physiological (airsickness, etc.)
- d. Intercom failure
- e. Expectations for the Student
- 6. **Questions**?

#### 7. End of Flight

- a. Ensure all personal belongings are removed
- b. Provide a discovery flight logbook
- c. Ensure their expectations were met
- d. Provide an overview of Flight Training Center programs and opportunities
- e. Hand them an AFTC Business Card

## **AREA MANEUVER PARAMETERS**

PILOT SHOULD REFER TO THE POH & AFH FOR RECOVERIES

C-172
STEEP TURNS (1500 Feet AGL Minimum)
Bank Aircraft 45°, Add 200 RPM, Trim 2 Turns
Complete 360-Degree Turn, Begin Rollout at ½ Bank Angle
POWER-ON STALLS (1500 Feet AGL Minimum)
ENTRY Power 2300 RPM, Airspeed Va
Select heading reference, Power 1500-1600 RPM, Airspeed Vr
20° Nose High, Full Power, Rudders Coordinated
RECOVERY Reduce AoA and Throttle Full Power
TURNING STALL 20° Nose High
Shallow Bank Turn - 10 – 20°
Cruise Checklist
POWER-OFF STALLS (1500 Feet AGL Minimum)
ENTRY Power 2300 RPM, Airspeed Va
1500 RPM, Airspeed 1.3*Vs0, Flaps Full Below Vfe
Stabilized Descent, 10° Nose High
RECOVERY Reduce AoA, Throttle Full Power, Flaps 20°
Airspeed Vx, Incrementally Reduce Flaps
Cruise Checklist
EMERGENCY DESCENT
ENTRY From Cruise Configuration:
Throttle Idle, Carb Heat On
Landing Configuration, Flaps Full
Pitch down to Vfe (Do not Over Speed Flaps)
Turns 30 – 45°
RECOVERY Throttle Full, Flaps 20 <sup>°</sup> ,Airspeed Vx, Incrementally Reduce Flaps
GO-AROUND
Power Full / Carb Heat Off / Nose to the Horizon
Flaps 20° Airspeed Vx, Incrementally Reduce Flaps, Airspeed Vy
TURNS AROUND A POINT
From Cruise Configuration, Altitude 1000' AGL, 2300 RPM, 90 KIAS
Select Reference, Enter Downwind, Begin Turn Abeam of Reference
Maintain Constant Radius by Varying Bank, Maintain Altitude
S-TURNS
From Cruise Configuration, Altitude 1000' AGL, 2300 RPM, 90 KIAS
Enter Downwind / Begin 180° Turn Perpendicular to Reference
Vary Bank to Maintain Constant Radius / Cross Reference Perpendicular
Initiate 180° Turn Opposite Direction From Initial Turn
RECTANGULAR COURSE
From Cruise Configuration, Altitude 1000' AGL, 2300 RPM, 90 KIAS
Enter Downwind / Fly Rectangular Traffic Pattern But Maintain Altitude
Vary Bank As Necessary to Compensate for Wind Drift to Maintain Ground Track

### **QUICK REFERENCE PHONE NUMBERS**

NAME	POSITION	PHONE NUMBER
Adriana Pietz	Manager	(831) 402-3945
David "Roy" Rogers	Chief Pilot	(775) 230-8703
USAFA Aero Club	Main Office #	(719) 333-4028/4044
Peterson Aero Club	Main Office #	(719) 556-4310

ORGANIZATION	DSN NUMBER	COMMERCIAL NUMBER	
Ops Sup	333-9557/0557	(719) 333-9557/0557	
Airfield Mgt	333-2367 (6391 fax)	(719) 333-2367	
SOF (VADER)	333-1162/3267	(719) 333-1162/3267	
Command Post	333-2910/2911	(719) 333-2910/2911	
Base Operator	333-1110	1-800-379-1455	
Flight Surgeon	333-5180	(719) 333-5180	
557 FTS/CC	333-3650	(719) 333-3650	
557 FTS/DO	333-7602	(719) 333-7602	
Time Hack	560-6742	(719) 567-6742	
Transportation	333-2608	(719) 333-2600	
Weather	333-2058	(719) 333-2058	
SARM Desk	333-3655	(719) 333-3655	
Airburst Range	691-3273/3225	(719) 526-3273/3225	
KCOS Jet Center		(719) 591-2288	
Flight Service		1-800-WX-BRIEF	
Peterson Base Ops		(719) 556-4778/9	
KFCS Base Ops	691-3935	(719) 526-3935	
1V6 ASOS (Fremont)		(719) 784-2014	
CO15 AWOS (Monun	nent Hill)	(303) 648-3479	
KAPA ATIS (Centennial)		(720) 873-2799	
KCOS ATIS (Colorado Springs)		(719) 380-6748	
KFLY ASOS (Meadow Lake)		(719) 683-5371	
KFCO ASOS (Space Port)		(303) 261-9104	
KLIC ASOS (Limon)		(719) 775-0515	
KLHX ASOS (La Junt	a)	(719) 384-5961	
KPUB ATIS (Pueblo)		(719) 948-2803	
KPUB Doss SOF		(719) 423-8677	
KBJC (Rocky Mt. Met	(720) 887-8067		

### **BIRD/WILDLIFE STATUS**

**Bird/Wildlife Watch Condition:** Bird/Wildlife Watch Conditions (BWC) are determined by the Supervisor of Flying (SOF) and are listed as Low, Moderate, and Severe. Pilots are expected to use good judgment when operating in any BWC greater than Low. Aircrews are encouraged to give PIREPS concerning bird/wildlife activity to ATC, the Ops Sup, or SOF. The SOF will determine any additional restrictions on operations based on the BWC and actual location of any birds and announce those restrictions to any affected aircraft.

- 1) BWC at civilian and uncontrolled military airfields: If aircrews observe activity that warrants a moderate or severe status, cease operations in the affected area. Contact the Ops Sup or SOF with a BWC recommendation. When the SOF, in coordination with the Ops Sup, is ready to investigate an airfield's BWC again, he/she may send aircraft back to the airfield to check activity levels. Normal operations may not resume unless/until the SOF changes the airfield's BWC to Low.
- 2) BWC definitions and recommended operation restrictions are as follows:
  - a) **BWC LOW:** Activity on or around the airfield representing low potential for strikes. Continue with operations as normal.
  - b) BWC MODERATE: Activity near the active runway or other specific location representing increased potential for strikes. BWC moderate requires increased vigilance by all agencies and supervisors and caution by aircrews.
  - i. <u>Traffic Pattern</u>. Only initial single-ship takeoffs to depart the pattern and full stop landings are authorized.
  - ii. <u>Training areas</u>. Use of training areas is authorized, but aircrews should avoid geographic areas and land features where birds have been identified.
  - c) **BWC SEVERE:** Activity on or immediately above the active runway or other specific location representing high potential for strikes. Supervisors and aircrews must thoroughly evaluate mission need before conducting operations in areas under condition SEVERE.
  - i. <u>Traffic Pattern</u>. Takeoffs and landings are not authorized unless a greater emergency or immediate operational necessity dictates takeoff or landing be made (e.g., minimum fuel or in-flight emergency). In such circumstances, the pilot in command shall make a proper risk assessment, obtaining as much information as possible about the bird hazard together with all available alternatives.
  - ii. <u>Training Areas</u>. Use of training areas is authorized, but pilots should avoid altitudes and specific areas with reported bird activity (generally below 3000' AGL but may extend to higher altitudes during migration events).

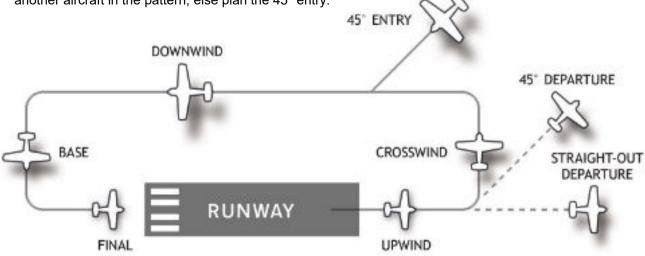
PHASE	BWC LOW	BWC MODERATE	BWC SEVERE
TAKEOFF	Normal Ops	Initial Single-ship takeoffs to depart the pattern ONLY	Not Authorized
PATTERNS	Normal Ops	Normal Ops Full Stop ONLY	
LANDINGS	Normal Ops	Full Stop ONLY	Not Authorized

3. Operational restriction summary:

## **UNCONTROLLED AIRFIELDS**

An uncontrolled airport is an airfield with no operating control tower. The key to communicating at an uncontrolled airport is selecting the correct common frequency. A CTAF (Common Traffic Advisory Frequency) is a frequency designated for the purpose of carrying out airport advisory practices while operating to or from an uncontrolled airport. The CTAF may be a UNICOM, MULTICOM, FSS, or tower frequency used during non-operational hours. It is identified in appropriate aeronautical publications and can also be obtained by contacting any FSS. All inbound traffic should monitor and communicate as appropriate on the designated CTAF from 10 miles out to landing. Departure aircraft should monitor and communicate on the frequency from engine start until 10 miles from the airport unless local procedures require otherwise. Reference FAA Advisory Circular 90-66C.

"FAR 91.113 (g) Landing. Aircraft, while on final approach to land or while landing, have the right-of-way over other aircraft in flight or operating on the surface. When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right-of-way. Aircraft will not take advantage of these rules to cut off another aircraft." There is no FAR giving direction concerning straight-in VFR landings to uncontrolled airfields. Only do a straight in, if you will NOT be a factor to another aircraft in the pattern, else plan the 45° entry.



Obtain landing runway and wind info from UNICOM, if available. If winds and landing runway are unknown, fly over the airfield at least 500' above pattern altitude. After determining the landing direction, enter on a 45 degree (1) to downwind entry. (Straight-in entries are generally prohibited).

#### NOTES:

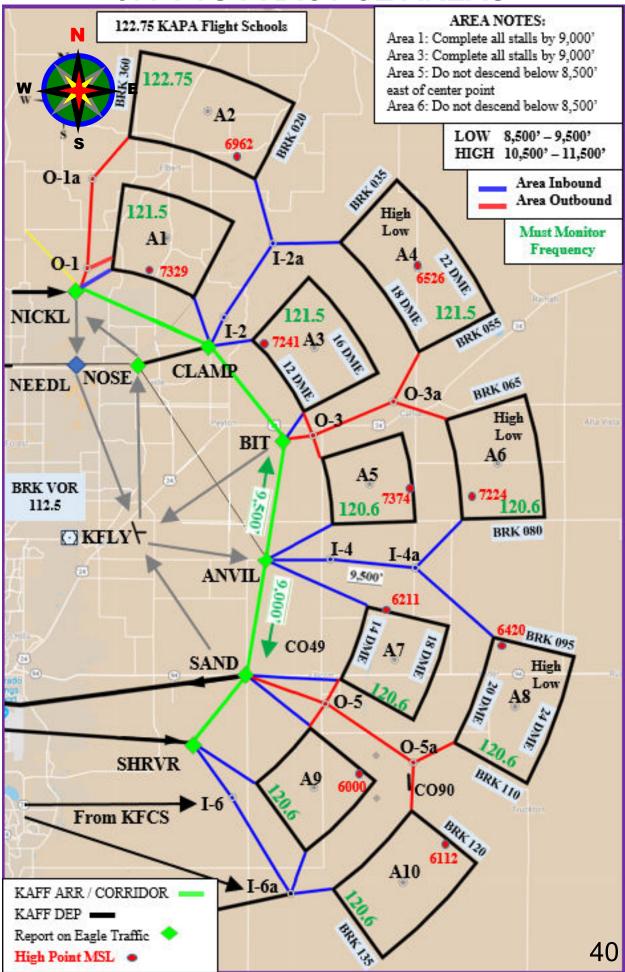
- 1) Call Sign phraseology:
  - a) UNICOM: "Springs East UNICOM" (This usually refers to a ground radio, like an FBO)
  - b) FSS: "Denver Radio"
  - c) MULTICOM (CTAF): "Fremont County Traffic"
- 2) On all inbound calls state aircraft identification, type, altitude, location relative to the airport, repeat facility. On calls to UNICOM and FSS request wind and runway info.

EXAMPLE: "Meadowlake Traffic, Shark11, Cirrus SR20, 8 NM to the east at 8,200 ft inbound for patterns, Meadowlake."

- 3) Report **10 miles**, **45-to-downwind**, downwind, **base**, final, **crosswind**, and **clearing/taking** the runway. At a minimum make position calls in bold.
- 4) On all outbound calls, broadcast before taxiing and taking the runway for departure. On calls to FSS include aircraft type, identification, type of flight (VFR) and the planned direction and destination of flight.

EXAMPLE: "Fremont County Traffic, BOLT 56, Cessna 172, Taking the active Runway 29, Departing to the southeast, Fremont County"

### **577 FTS PRACTICE AREAS**



### WIND CHART

WND SPD		DEGREES OFF RUNWAY HEADING							
KTS	10	20	30	40	50	60	70	80	90
10	2	3	5	6	8	9	9	10	10
11	2	4	6	7	8	10	10	11	11
12	2	4	6	8	9	10	11	12	12
13	2	4	7	8	10	11	12	13	13
14	2	5	7	9	11	12	13	14	14
15	3	5	8	10	11	13	14	15	15
16	3	5	8	10	12	14	15	16	16
17	3	6	9	11	13	15	16	17	17
18	3	6	9	12	14	16	17	18	18
19	3	6	10	12	15	16	18	19	19
20	3	7	10	13	15	17	19	20	20
21	4	7	11	13	16	18	20	21	21
22	4	8	11	14	17	19	21	22	22
23	4	8	12	15	18	20	22	23	23
24	4	8	12	15	18	21	23	24	24
25	4	9	13	16	19	22	23	25	25
26	5	9	13	17	20	23	24	26	26
27	5	9	14	17	21	23	25	27	27
28	5	10	14	18	21	24	26	28	28
29	5	10	15	19	22	25	27	29	29
30	5	10	15	19	23	26	28	30	30

SOLO LIMIT

DUAL LIMIT

OUT OF LIMITS

#### Solo Wind Limits

Max Windspeed (Takeoff) – **20 Knots** Max X-Wind – **10 Knots** Max Tailwind – **5 Knots** 

#### Solo WX Limits

Pattern	2000 AGL – 5 SM
Area	2000 AGL – 5 SM
X-Country	3000 AGL – 7 SM

#### PPL or Higher Wind Limits

Max Windspeed (Takeoff) – **30 Knots** Max X-Wind Takeoff/Landing – **15 Knots** Max Tailwind – **5 Knots** 

#### PPL or Higher WX Limits

Pattern	1500 AGL – 3 SM
Area	2000 AGL – 5 SM
X-Country	2000 AGL – 5 SM
Night VFR	2500 AGL – 5 SM

### **AIRCRAFT CALLSIGNS AND CODES**

C-172 / C-182

Beacon Code	Call Sign	N-Number	Туре
0245	RALLY08	N94986	C-182Q
0260	RALLY14	N1401E	C-172N
0261	RALLY03	N7903N	C-172E
0262	RALLY53	N7753L	C-172G
0266	RALLY70	N1370U	C-172M
0267	RALLY06	N98306	C-172P
0270	RALLY01	N6601K	C-172P
0272	RALLY04	N7884N	C-172E
0273	RALLY13	N51387	C-172S
0274	RALLY66	N66MJ	C-182Q
0276	RALLY73	N736HM	C-172K

### **AIRCRAFT PARKING**

