

# Flight Operations Procedures

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## 1 FLIGHT OPERATION PROCEDURES CONCEPT

1.1 The CBU Flight Operation Procedures or FOPs are designed to standardize flight procedures. It is expected that anyone flying CBU aircraft, will be familiar with these procedures and abide by them. Flight Operations Procedures may be modified, deleted or added to meet the operational needs of the department, aircraft and the surrounding environment. These changes will be communicated through FIFs throughout the semester and be incorporated into the FOP document at the end of each semester. While the FOPs cover much of what you need to know about flight procedures, this document works hand in hand with the Student Safety Guide (attached) which covers a number of additional safety procedures (wx minimums, discrepancy reporting, etc).

## 2 AIRCRAFT CARE

2.1 CBU has invested significantly in our aviation program, especially our aircraft fleet. We expect anyone who utilizes our fleet to respect it and take the utmost care when conducting ramp and flight operations.

### 2.2 Brakes

2.2.1 Improper brake use at the very least wears on the brakes and in some situations may result in tire and/or aircraft damage. When taxiing there should be no "riding" of the brakes, a reduction of power to idle should be used prior to brake application. Differential braking techniques should be used only when needed. There should be no application of brakes on landing prior to all three wheels being firmly down and the aircraft tracking straight down the runway. The parking brake will be utilized during engine start and engine run-up.

### 2.3 Pitot Heat

2.3.1 Do not leave the Pitot heat ON during ground operations for more than 3 minutes. It should only be turned on briefly during the preflight to verify operation. Make sure that the pitot mast cover is off before turning it on. If the Pitot mast cover is on while the Pitot heat is on then it will melt the pitot cover to the mast. Continued pitot heat will only be needed during IMC operations, Pitot blockage, or Icing conditions.

### 2.4 Fuel Pump

2.4.1 The fuel pump should be used minimally in the Archer. The electrical fuel pump should be in the on position during:

- 2.4.1.1 Switching of fuel tanks
- 2.4.1.2 Traffic pattern operations
- 2.4.1.3 Takeoff and landing
- 2.4.1.4 Ground reference maneuvers
- 2.4.1.5 As required by starting procedure checklists
- 2.4.1.6 In range checklist
- 2.4.1.7 Any operations below 1000FT AGL
- 2.4.1.8 Fuel vapor situations

2.4.2 Excessive fuel pump operations can send too much fuel through the system which will result in the fuel servo wearing out prematurely.

### 2.5 G1000 and G500 Screens

2.5.1 The G1000 and G500 screens are easy to scratch and damage. Do not touch them and only clean them with the materials provided by CBU.

## 22.6 Buttons and Knobs

22.6.1 The buttons and knobs on the G1000, G500, and G650 will wear out prematurely if they are treated roughly, especially if the buttons are pressed too hard. Be gentle with the buttons and knobs and only put the pressure needed on them.

## 22.7 Doors and Door Locks

22.7.1 Doors and door locks quickly wear out on aircraft when they are not handled properly. The doors should be opened and closed gently ensuring door hinges are not over extended and doors are not slammed. When locking the door from either the inside or the outside, ensure that the door is properly in place before attempting to lock it. The top latch/lock on the Piper aircraft is not designed to hold the pressure of the locked door on its own. When locking the door, lock the lower handle first and then the upper lock. When opening the door, unlatch the top lock prior to unlatching the lower lock. Any time the aircraft is left unattended, all doors should be closed and locked.

## 22.8 Oil, Engine Care and Monitoring

22.8.1 It is imperative that we take very good care of our engines. Prior to departure, ensure that there is plenty of oil. On hot days and longer flights, depart with the oil at least 7 quarts. It is easy to over service the oil, any extra oil is blown out through the breather tube so please be careful when adding oil. If flying a cross country and it is expected to be over three hours duration, carry extra oil in case you need it. For local flights, the oil should be within 2 quarts of full capacity. Do not cruise in excess of 75% power unless authorized by management. Leaning should be in accordance with the Approved Flight Manual.

### 22.8.2 Oil procedures

22.8.2.1 When a student checks in for each flight, they will be handed a quart of oil along with the aircraft binder and keys. It is not required to use the oil you are given from dispatch. It should only be used if it is needed. If you use the oil during your flight lesson, you will notify dispatch when you return and indicate how many quarts were added on the aircraft hours sheet in the aircraft binder. If you are flying a Seminole indicate which engine you added oil to if it was needed. This is for tracking purposes at dispatch. If the oil was not needed, you must bring the quart of oil back to dispatch.

### 22.8.3 Determining if AC needs oil

22.8.3.1 While completing the preflight check, ensure the aircraft has enough oil. The minimum amount of oil allowed in each aircraft engine is six quarts according to CBU policies. The maximum amount of oil allowed in each aircraft engine is eight quarts according to the aircraft POH. The oil level will be checked on the oil dipstick by opening the cowling access door at the rear of the engine cowling. The oil level will normally indicate between six and seven quarts. Only if the oil level indicates below six quarts should more oil be added. If it appears that there is no oil on the dipstick verify when the last inspection was conducted as fresh oil can be difficult to see. Wipe off the dipstick with the red rag in the aircraft baggage compartment and re-insert the dipstick. Look at the dipstick again to determine the oil level. Use a finger to touch the dipstick to determine the oil level if it is still difficult to determine the oil level. Also review the aircraft hours sheet and see when the last time oil was added. If the engine is hot or warm the dipstick will indicate a lower than actual oil level. This is because all the oil has not settled to the oil sump where the dipstick reads the oil level. If a hot swap is occurring, ask the previous crew if they used oil and what the previous oil level was at. ALWAYS consult a CFI if there is doubt about whether oil is needed or not.

### 22.8.4 Procedures for adding more oil

22.8.4.1 If oil needs to be added follow the procedures listed below.

- 22.8.4.1.1 Remove the oil dipstick and wipe it off using the red rag in the aircraft baggage compartment. Either continue holding the dipstick, or place it where it will not get contaminated.
  - 22.8.4.1.2 Take the funnel from the aircraft baggage compartment and insert it into the oil access in the cowling (where the dipstick was removed).
  - 22.8.4.1.3 Pour the entire quart of oil into the funnel slowly. Be careful not to pour too quickly. Do not pour a partial quart into the engine. Always use the whole bottle.
  - 22.8.4.1.4 After the oil bottle has been emptied, remove the funnel from the oil access and wrap the red rag around it to prevent oil from dripping onto the ground and in the baggage compartment.
  - 22.8.4.1.5 Re-insert the oil dipstick. If you check the dipstick after adding more, it may be difficult to read as oil is covering the edges access.
  - 22.8.4.1.6 Do not throw away the oil bottle that was just emptied. After adding the full quart of oil and the dipstick has been re-installed, take the empty oil bottle and put it in suite C. To the left as you enter suite C there will be several bottles that drain into another bottle. Place the emptied oil bottle on the drain. If the drain rack is full, remove one of the bottles that has been drained to make room. Once the oil bottles have been drained they will be disposed of by Dispatch.
  - 22.8.4.2 If the oil level is not below six quarts, oil does not need to be added. If there is any question or doubt if oil should be added consult a CFI before adding more.
- 22.9 Engine Start**
- 22.9.1 Prior to engine start on the CBU ramp, the aircraft should be ground handled out of the space so that it is facing 90 degrees from the parking spot and ensure that the prop wash during start will not hit another aircraft or hangar.
  - 22.9.2 If on the Terminal Ramp and there is no aircraft directly behind your prop wash you may start up in the parking spot. This is done to prevent blocking the row from other aircraft.
  - 22.9.3 Use the proper cold or hot start procedures as outlined in checklists.
- 22.10 Entering and Exiting the Aircraft**
- 22.10.1 When entering or exiting the aircraft, only put weight on the areas of the wings designed to be walked on. This area is the black grip tape along the right wing. Absolutely no weight may be placed on the flaps when they are extended, even if they are only partially extended. No more than one person should be on the wing of the aircraft at any time. Do not enter or exit the aircraft with the cargo door open. This could damage the door and is a safety hazard. When stepping off the wing use the handle and step to safely step off the wing. Do not step onto the seats or lean against the doors to support your weight. When moving seats forward and aft, do not grab the dashboard for leverage. Instead grab the vertical pillars where "Grab Here" stickers are located. No objects are to be placed on the dashboard as they may scratch the dash and windscreen.
  - 22.10.2 Before exiting the aircraft or simulator, scan the interior for any loose personal items.
- 22.11 Food, Beverages, and Miscellaneous**
- 22.11.1 Except for water, no food or drink are permitted in aircraft. It is strongly encouraged that our pilots maintain proper hydration during flight, water bottles are permitted (please use one with a lid that prevents spilling). Coffee, soda, and other drinks that could stain are not allowed to be consumed in CBU aircraft. Smoking, vaping, and chewing tobacco are not allowed in CBU aircraft. Please dispose of any trash in Suite C after each flight.
  - 22.11.2 ABSOLUTELY NO Liquids or foods in the simulator bay.

## 22.12 **Writing Utensils**

22.12.1 Pencils and styluses are the only approved writing utensils in CBU's aircraft.

## 22.13 **Fueling**

22.13.1 Take care when fueling CBU aircraft. The aircraft must be properly grounded, preferably on a tie down hook, not on the exhaust stack. Be careful not to spill fuel on the wing and use a fueling mat found in the baggage compartment of each aircraft. The fuel nozzle could dent the wing if it is dropped onto it. When refueling, the nozzle should be placed such that the nozzle is not touching the filler neck. The filler neck is not designed to have any pressure placed on it, if the fuel nozzle is rested on it over time the filler neck will crack causing a fuel leak. If you know that you are the last flight of the day please take the time to fill up the fuel tanks to prevent longevity of the fuel seals in the tanks, allow the first flight of the day to launch on time, and in case the fuel pit is inoperative the next day.

22.13.2 Always leave the aircraft with a minimum of 2.5 hours of fuel (25 gallons in the Archer). If returning with less, then refuel the aircraft.

22.13.3 The last flight of the day in each aircraft should refuel no matter how much fuel remains. Dispatch will notify the pilot that they are the last flight of the day in a particular aircraft. This is done to both protect the fuel tank seals from drying out and to ensure that the aircraft are fueled up for the next morning to maximize the schedule.

## 22.14 **Windscreen Care**

22.14.1 Windscreens are very easily damaged. The proper technique for washing the exterior of the windscreen is to first use water and wipe it with your hand to remove dust and debris (be careful not to scratch it with watches or jewelry such as rings). After this you may use the spray cleaner on the windscreen and a clean, white windscreen microfiber cloth (do not use oil rags or paper towels). Wiping motions are to be straight up, changing from one side to another and down with absolutely no circular motions. If you accidentally drop the cleaning rag on the ground, do not use it, replace it with a new rag.

### 22.14.2 Window Cleaning Procedure:

22.14.2.1 Rinse with water.

22.14.2.2 *Removed.*

22.14.2.3 Apply window cleaner supplied in the aircraft.

22.14.2.4 Use CLEAN white microfiber cloth supplied in aircraft. Do NOT use red oil rags.

22.14.2.5 Note: If cloth is dirty please return it to Dispatch and pick up a clean one before using on windows.

22.14.2.6 Use straight up and down motion when using microfiber on windows. Do NOT use circular motions.

## 22.15 **Handling Flight Control Surfaces**

22.15.1 When handling the aileron and stabilizer during preflight, identify the central rivet line (placarded) on the control surface and then handle by utilizing either one of the following methods.

22.15.1.1 Method #1: Open Palms above and below the rivet line (aileron/trim tab).

22.15.1.2 Method #2: Open palm on the trailing edge behind the rivet line of the control surface. Ensure that you do not cup the bottom of the trailing edge with your palm.

22.15.2 Gripping the control surface from any other part can cause stress and damage to the skin of the control surface. Even pinching the surface along the rivet line between the trailing edge and the first rivet can cause damage as there is no rib support due to the angle.

### 3 EXCHANGE OF FLIGHT CONTROLS

- 3.1 CBU utilizes the three-way positive exchange of flight controls when exchanging controls between student and CFI. There should never be any doubt as to who has the flight controls.

### 4 GROUND HANDLING

- 4.1 All ground handling will be done in accordance with the Approved Flight Manual. Be very careful with the tow bar. Do not push or pull on the spinner or cowling. It is ok to push on the propeller hub where the propeller meets the spinner. Be sure to observe the wings and tail of the aircraft while moving the aircraft. If you are ever in doubt please ask assistance from someone else.

### 5 SECURING AIRCRAFT

- 5.1 Aircraft left unattended are to be securely tied down so that they are not moved by strong winds and the chains secured such that they are not dangling (we do not want loose chains to get blown by the wind and chip paint, dent the underside of the wings, etc.).
- 5.2 Any time you are not physically present at the aircraft, the aircraft will be tied down and the wheel chocked and lock the doors. If you need to quickly run into Suite C, you may leave the aircraft chocked. If the aircraft will be unattended for more than 1 hour on the CBU ramp or left overnight at another airport the flight controls need to be secured per the instructions in the Approved Flight Manual with all sun shades and external covers installed. If it is windy, secure the flight controls any time the aircraft is unattended.
- 5.3 Never leave the parking brake set when there is a chance the aircraft may need to be ground handled (especially when visiting other airports and leaving the aircraft under the care of a FBO as they often reposition aircraft). The parking brake should only be set during preflight, engine start, engine run-up, and temporarily while parked on an uneven surface.
- 5.4 Aircraft should pull in 90 degrees to parking spot as to avoid prop blast on parked aircraft. After the aircraft has been properly shut down, it should be pushed back with a tow bar into the desired parking spot. The aircraft should be tied down with all three chains and the nose wheel chocked with the parking brake off when the aircraft will be left unattended.
- 5.5 Verify all the switches (except the fin strobe/beacon) are in the OFF position, the flight controls are secured and the doors locked when the aircraft will be left unattended. At the conclusion of each flight, the aircraft keys and binder should be returned to dispatch immediately.

### 6 CALLOUTS

- 6.1 These callouts are general callouts for all CBU aircraft (landing gear callouts only apply to the aircraft with retractable landing gear). Aircraft Specific callouts are listed in the specific aircraft maneuvers guide.

#### 6.2 Checklists

- 6.2.1 When beginning a checklist state the name of the checklist out loud. When complete with the checklist state the name of the checklist followed by, " \_\_\_\_\_ Checklist complete."

#### 6.3 Flaps

- 6.3.1 Prior to extending flaps call out "*Below (applicable flap limitation speed) flaps \_\_\_\_°.*"

#### 6.4 Clearing taxiways

6.4.1 Verbally confirm that all taxiways and intersections are clear before entering. Example "Clear right, clear left"

#### 6.5 Pre- Maneuver Flow

Note: Pre-maneuver flow can be accomplished verbally or silently at the discretion of the CFI BUT the completion of it should be announced verbally with "Pre Maneuver Flow Complete"

6.5.1 "Clearing turn"

6.5.2 "Fuel Selector"

6.5.3 "Fuel pump" – On for maneuvering less than 1000' AGL

6.5.4 "Heading/Altitude – Bug"

6.5.5 "Engine Gauges – Green"

6.5.6 "Throttle – Set" (usually 2100 RPM)

6.5.7 "Mixture – As Required"

6.5.8 "Flaps – As Req'd"

6.5.9 "Position report"

6.5.10 "Pre-Maneuver Checklist Complete"

#### 6.6 Landing Gear

6.6.1 (If departing the pattern) Prior to retracting the landing gear call out, "Positive rate of climb, airspeed below (gear limitation speed), no usable runway remaining, gear up."

6.6.2 Prior to gear extension call out, "Below (gear limitation speed) landing gear down."

6.6.3 After gear are secured down call out, "Three green, no red, gear down and locked."

##### 6.6.4 On Base and Final callout:

6.6.4.1 "Red, Blue, Green"

6.6.4.1.1 Red – Mixture is full forward

6.6.4.1.2 Blue – Prop lever is full forward

6.6.4.1.3 Green – Three green lights indicating gear is in the down position

6.6.4.2 Further instructions for landing gear are contained in the specific aircraft procedures.

6.7 **BGUMPS** –usually performed in the downwind in the traffic pattern but should be performed when entering the airport environment on a long Base or Final leg.

6.7.1 "Brakes" – apply brakes to verify that there is brake pressure, ensure the heels are on the floor and parking brake is off

6.7.2 "Gas – on fullest tank and Fuel pump is on"

6.7.3 "Undercarriage – gear is down" (as required per aircraft)

6.7.4 "Mixture – mixture is full rich"

6.7.5 "Power –Power is set and Propeller control (if equipped) is full forward"

6.7.6 "Seats/Seatbelts"- fastened and secured

#### 6.8 IFR Callouts

6.8.1 Callouts specific to IFR and/or simulated IFR procedures are contained within the Instrument Approach Setup guide in the FOPs

#### 6.9 Taking the Runway

6.9.1 Call out... "Final clear, lights, pump, mixture"

#### 6.10 Takeoff Roll Callouts

6.10.1 Call out... "Power - set, engine - checks, airspeed alive"



## 7 CHECKLISTS

- 7.1 Checklists are to be completed using the “Read-Do” technique on the ground, but “Flow – Verify” should be used when taxiing or when deemed appropriate by pilot. “Flow-Verify” should be used during flight and for Boldface items on Emergency checklists.
- 7.2 Emergency checklists are to be completed as specified in the individual aircraft procedures.
- 7.3 Boldface text should be memorized as a flow.

## 8 PASSENGER BRIEFING (SAFETY)

### 8.1 S.A.F.E.T.Y.

#### 8.1.1 **Seatbelts**

- 8.1.1.1 Explain how to fasten and unfasten
- 8.1.1.2 Explain that the seatbelt should be worn at all times

#### 8.1.2 **Air Vents and Airsickness**

- 8.1.2.1 Show them where air vents/gaspers are and how to operate them
- 8.1.2.2 Explain to them where the airsickness bags are and how to use them (also to let you know if they start to feel ill even if they think that they will not need an airsickness bag)

#### 8.1.3 **Fire Extinguisher**

- 8.1.3.1 Show them where the fire extinguisher is and explain how to unsecure and use it if needed

#### 8.1.4 **Emergency Exits and Electronics**

- 8.1.4.1 Show them how to use the exits and brief how to evacuate the aircraft if needed
- 8.1.4.2 Explain how cell phones may affect the aircraft’s navigation and communication equipment and your preferences for their use during flight

#### 8.1.5 **Traffic and Talking**

- 8.1.5.1 Ask for help spotting traffic and explain as needed
- 8.1.5.2 Show them how to use their headset
- 8.1.5.3 Explain the “sterile cockpit” concept and when you want them to use it
- 8.1.5.4 Explain the importance of allowing you to listen to ATC and that their talking in the headset could interfere with this
- 8.1.5.5 Your Questions
- 8.1.5.6 Cover any miscellaneous information not included above and ensure they do not have any questions

## 9 TAKEOFF BRIEFING

9.1 The takeoff briefing is intended to be a planning session for your departure and initial climb out. In this planning session you should be ensuring that you have an appropriate departure plan. You need to verify that you have adequate runway length and aircraft performance to safely execute your plan. You will also plan on what to do if you have abnormalities and/or an engine failure on the takeoff roll/departure as this type of emergency warrants a quick reaction. Reference your specific aircrafts checklist and expanded checklist for more information.

**9.2 Example of Archer Takeoff Briefing Card**

DEPARTING RUNWAY AND RUNWAY LENGTH
TAKEOFF PERFORMANCE
ABNORMALITIES ON TAKEOFF ROLL
ABORT POINT
ENGINE FAILURE AFTER TAKEOFF BELOW 700FT AGL/ _____MSL
ENGINE FAILURE AFTER TAKEOFF ABOVE 700FT AGL/ _____MSL
DESIGNATE PILOT IN COMMAND IN THE EVENT OF AN EMERGENCY

**9.3 Example of Archer IFR Takeoff Brief Card and Rate of Climb or Descent Table**

<b>IFR TAKEOFF AND EMERGENCY BRIEF</b>
ENSURE GPS RECEPTION
DEPARTING RUNWAY AND RUNWAY LENGTH
TAKEOFF PERFORMANCE
ABORT POINT
DEPARTURE PROCEDURE
RATE OF CLIMB
URGENCY REQUIRING RETURN TO AIRPORT
ABNORMALITIES ON TAKEOFF ROLL
ENGINE FAILURE AFTER TAKEOFF BELOW 700FT AGL/ _____MSL
ENGINE FAILURE AFTER TAKEOFF ABOVE 700FT AGL/ _____MSL
IMC ENGINE FAILURE

Rate of Climb or Descent Table							
Gradien t	ft/nm	Rate required for GS rounded up to the next 50 fpm					
		60 GS	80 GS	90 GS	100 GS	110 GS	120 GS
1.9	200	200	300	300	350	400	400
2.1	223	250	300	350	400	450	450
2.3	244	250	350	350	400	450	450
2.5	265	300	400	400	450	500	550
2.7	286	300	400	450	500	550	600
2.8	297	300	400	450	500	550	600
2.9	307	350	450	500	550	600	650
3	318	350	450	500	550	600	650
3.1	329	350	450	500	550	650	700
3.2	339	350	500	550	600	650	700
3.3	350	350	500	550	600	650	700
3.5	371	400	500	600	650	700	750
3.7	392	400	550	600	700	750	800
3.9	413	450	600	650	700	800	850
4	424	450	600	650	750	800	850
4.2	445	450	600	700	750	850	900
4.4	466	500	650	700	800	900	950
4.6	487	500	650	750	850	900	1000
4.8	508	550	700	800	850	950	1050
5	530	550	750	800	900	1000	1100

## 10 Currency Requirements

- 10.1 Landing Currency: CBU students and CFIs must maintain a 60 day landing currency (3 takeoffs and landings) in order to fly CBU aircraft. If the 60 day requirement is not maintained, the student must fly with a CBU instructor to satisfy the currency requirements.
- 10.2 IFR Currency: All Pilots who wish to fly in instrument conditions must maintain IFR currency in accordance to FAR 61.57. If an aircraft is flown into actual instrument conditions that require an instrument approach to land, there must be an instrument current CFI present or there must be two (2) current instrument rated pilots on board. A single pilot may fly into instrument conditions if approved by the Director of Flight Operations or Chief Flight Instructor. Dual training flights and admin flights are permitted in IMC if an IFR current CFI is PIC.
- 10.3 Night Currency: Students must maintain a 60 day night currency consisting of three take offs and landings to a full stop before conducting solo night flights. Students must accomplish currency flight with a CBU CFI. CFIs must maintain 60 day night currency before conducting night training. CFIs should attempt to get current with another CFI who needs night currency. If unable to find another CFI then coordinate with the Director of Flight Operations or Chief Flight Instructor.

## 11 PERSONAL MINIMUMS

- 11.1 Personal minimums have been implemented to the CBU program to improve our safety culture, aeronautical decision-making and better train our students for the workforce.
- 11.1.1 All students and instructors must carry a valid personal minimums form when flying a CBU aircraft.
- 11.1.2 Only a student's assigned instructor, the Director of Flight Ops, Chief Flight Instructor, Assistant Chief Flight Instructor, or Chief of Program may sign a student's personal minimums.
- 11.1.3 Flight Instructors will have the Director of Flight Ops, Chief, Assistant Chief Flight Instructor, or Chief of Program sign their minimums.
- 11.1.4 No student or instructor may have personal minimums outside of the listed CBU weather minimums. If conditions are currently outside of the instructor/solo student's minimums, or forecast to be outside of the minimums during the flight, the flight may not depart.
- 11.1.5 Instructors and solo students will not be allowed to fly in conditions outside of their minimums without expressed permission from the Director of Flight Ops, Chief, or Assistant Chief Flight Instructor.
- 11.1.6 When student currencies need updated, a new personal minimums form will need to be signed and the previous one will become void.
- 11.1.7 Instructors may update their own currencies without voiding the form.
- 11.1.8 If someone wishes to change their personal minimums they may do so providing the appropriate instructor signs them, but they will not be valid until 24 hours after they are signed.
- 11.1.9 During stage checks and checkrides, students will be expected to be capable of performing within the minimums listed on their form. If it is found that their skillset is not strong enough for their minimums the stage check instructor will adjust their minimums.
- 11.1.10 If conditions are outside of a student's personal minimums but within the instructor's minimums, the flight may be dispatched based upon the instructor's minimums. Students are encouraged to fly with their instructors during these times to increase their capabilities and proficiency level.
- 11.1.11 If two students are flying together, the more restrictive personal minimums between the pilots will apply to the entire flight.

## 12 PILOT/FLIGHT RISK ASSESSMENT

- 12.1 With this form, we will evaluate the pilot, weather, mission, and takeoff/landing conditions individually for level of risk (scaled low, moderate or high based on specific criteria) and then assess these factors cumulatively for an overall flight risk assessment. There is a blank section for pilots to add anything they feel needs included in the risk assessment that is not already addressed. If a pilot feels that the risk assessment level is inaccurate they are allowed to adjust the cumulative risk assessment to make it higher, but not lower (i.e. the form shows a "moderate" level of risk but the student feels a "high" level of risk is more appropriate). On the right side of the form is criteria that will require a sign-off on the bottom of the form by either the student's instructor, the Chief Instructor, or the Assistant Chief Instructor. A student's assigned instructor may only sign off the "Pilot" section. If the student's instructor is not available to sign off this section, the Director of Flight Ops, Chief Flight Instructor or Assistant Chief Flight instructor must sign off this section. If the student's instructor, Chief Flight Instructor, or Assistant

Chief Flight Instructor is not physically present to sign the form, a text to the dispatch phone will allow them to have the dispatcher sign on their behalf (dispatcher's will write, "signed per whomever gave permission" and then sign their name to the form).

### 12.2 Risk Assessment Form

Pilot/Flight Risk Assessment				
	Low	Moderate	High	Chief/Assistant Chief Approval
<b>Pilot</b>				
Health	Excellent	Minor Concerns	Strong Concerns	Approval is required for solo flights if three or more "Pilot High Risk" factors are present. If the flight is being conducted under a CBU syllabus, the student's assigned flight instructor may sign for this section only.
Personal Stress	Low	Moderate	High/Personal Issues	
Alcohol	None in 48 hours	None in 24 hours	None in 8 hours	
Medications	None/Regular FAA Approved	FAA Approved	New FAA Approved	
Eating/Drinking	Normal	Missed Meal	2 Missed Meals	
Student Currency	Flown within past 7 days	Flown within past 14 days	Not flown in over 14 days	
<b>Fatigue</b>				
Sleep Quality	Uninterrupted	Some Interruptions	Significant Interruptions	
Sleep in Last 24 Hours	≥ 8 Hours	5 - <8 Hours	< 5 Hours	
<b>Weather</b>				
Ceilings	> Double Personal Minimums	Above Personal Minimums	At Personal Minimums	
Visibility	> Double Personal Minimums	Above Personal Minimums	At Personal Minimums	
Winds	<1/2 Personal Minimums	Below Personal Minimums	At Personal Minimums	
Thunderstorms	None	Isolated and > 20 NM Course	Within 20 NM of Course	Approval is required for "High Risk"
Turbulence	None/Light	Occasional Moderate	Continuous Moderate or >	
SIGMETs/CWAs	None	≤25 NM of Course	≤ 10 NM of Course	Approval is required for "High Risk"
Windshear	None	Forecast/Reported <10 knots	Reported ≥10 knots	Approval is required for "High Risk"
Density Altitude	Less than 2,000 ft	2,000 feet to 3,000 ft	Above 3,000 feet	Approval is required if DA is above CBU listed aircraft limits. All passengers other than the CFI and student must be approved under this circumstance.
	C150--3,000 ft C172M/N--4,000 ft PA-44-180 - 5,000 ft	PA-28-181 - 5,000 ft	PA28R-201 - 5,000 ft	
<b>Mission</b>				
Type of Flight	Dual	Solo/Dual XC	Solo XC	
Intended Airports	Familiar	Unfamiliar	Unfamiliar Class B	
Flight Conditions	Day VFR	Day IFR/Night	Night IFR	Approval is required for non-dual IFR
<b>Takeoff/Landing Conditions</b>				
Runway Length	≥ Double Personal Minimums	≤ Double Personal Minimums	Personal Minimums/Obstacles	
Runway Condition	Good/Dry	Fair/Wet	Poor	Approval required for solo "High Risk"
Anything not addressed above that should be considered				
<b>Cumulative Flight Risk Assessment</b>	Low Risk	Moderate Risk ≤ 3 and High Risk ≤ 0		
	Moderate Risk	Moderate Risk ≤ 6 and High Risk ≤ 3		
	High Risk	Moderate Risk > 6 and High Risk >3		
<b>Go/No-Go Decision</b>				
If this flight were a solo flight would it be a "Go" or a "No Go" Decision?				
Is this flight a "Go" or a "No-Go" decision? <b>N-Number:</b>				
Student Name: <b>How many quarts of oil did you add in your preflight?</b>				
Planned Destination: Instructor Name: Date:				
Chief/Assistant Chief/Instructor approval signature (if required):				

## 13 CROSS COUNTRY PROCEDURES

13.1 All dual and solo cross country flights traveling 50nm or greater from KRAL will need a "Cross Country Approval Form." Our primary purpose is to ensure we have better tracking of our aircraft. This form is to be completed, along with the Flight Plan being filed, activated, and closed to ensure the utmost safety of our students and staff. All landings on cross countries will be to a full stop to allow the cross country flight plan to be closed, for Dispatch to be notified of arrival and for overall safety of flight.

13.2 Filing and Activating of a flight plan is **REQUIRED** for all XC flights at CBU. Research says that flights where an accident occurs and a flight plan was filed and activated were found four hours sooner than flights that did not file a flight plan. Four hours can be the difference between life and death. Flight following is not an adequate substitute for an activated flight plan as flight following is not a guaranteed service and ATC can lose you on radar for extended periods of time depending on location and altitude.

13.3 All dual and solo cross country flights are required to sign out a Survival Kit from Dispatch prior to flight IF a kit is available. There are currently three kits and they will be issued on a "First

Come First, Serve” basis. These kits are to be used in actual emergency and medical situations only.

13.4 The Checkout procedure is as follows

13.4.1 Dispatch will issue you a survival kit when requested.

13.4.2 Unzip all pockets and check the inventory for damaged or missing equipment.

13.4.3 Sign out the kit at the Dispatch desk. **YOU ARE RESPONSIBLE FOR THE KIT AND ITS CARE WHILE IN YOUR POSSESSION.**

13.4.4 If you use any items in the kit during the flight please make a note of what was used on the provided Survival Kit Used Items Inventory form in the kit. (Kits will be restocked as items are used.)

13.4.5 When you are finished with the kit, sign it back in at the Dispatch desk.

13.5 Cross Country Approval Form Procedure

13.5.1 Any instructor or the Chief Instructor may sign a Cross Country Approval Form.

13.5.2 Cross Country Approval Forms will be kept in the “Cross Country” Binder at dispatch and updated throughout the duration of the flight.

13.5.3 *Removed.*

13.5.4 Fill out everything on the Cross Country Approval Form except the tracking table in pen. Fill out the flight tracking table in pencil so it can be edited by dispatch.

13.5.5 The following flight tracking procedures will apply to cross country flights:

13.5.5.1 Dispatch needs to know departure times accurate within 10 minutes.

13.5.5.2 When leaving KRAL give dispatch your anticipated departure time (if you find you will be more than 10 minutes late leaving call or text dispatch with an amended time).

13.5.5.3 When you reach your destination, if you are shutting down the engine, call dispatch as soon as possible to let them know you arrived. You will need to give them an anticipated departure time for the next leg (if you find that you will be more than 10 minutes late leaving call or text dispatch with an amended time).

13.5.5.4 If you land at a destination that you did not originally plan to stop at, but change your mind upon arrival, contact dispatch the same way you would if you had planned on stopping.

13.5.5.5 If you cannot get into contact with dispatch leave a voicemail or contact the Chief or Assistant Chief Flight Instructor.

13.6 Cross Country Approval Form

**Cross Country Approval**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

PIC Cell: \_\_\_\_\_

Departure: \_\_\_\_\_ Destination: \_\_\_\_\_

Approved Airports: \_\_\_\_\_

Leg	Departure/Destination	ETE	Departed	Arrived	Notes

Persons Onboard: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CFI Signature: \_\_\_\_\_

**Front**

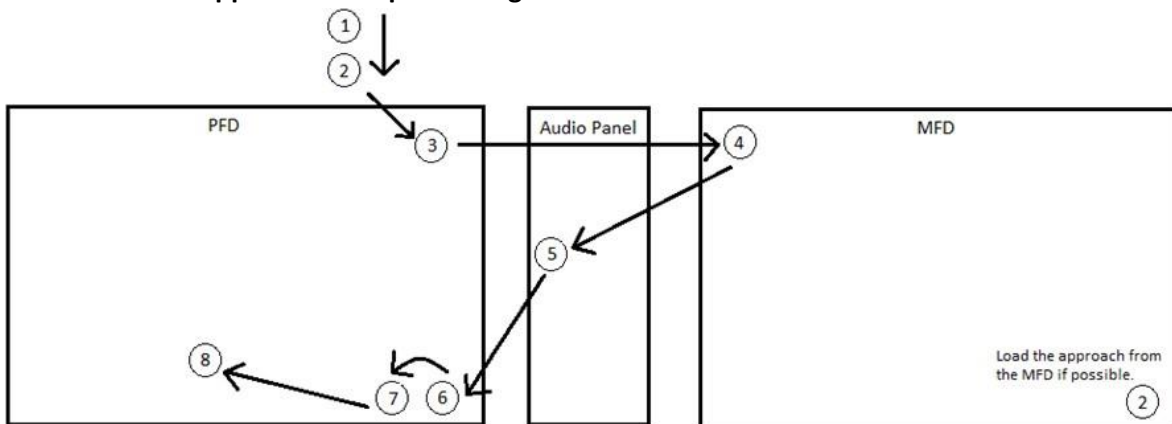
- Check and Initial Pilot Preflight Planning Form
- Check Pilot/Flight Risk Assessment form and ensure signed if required
- Check Student Personal Minimums
- Ensure Student is current and the entire flight may be conducted within the student's personal minimums
- Verify Pilot's activity has been authorized
- Ensure student has the following:
  - Current Navigation Chart with course plotted (may have a legal electronic chart such as Foreflight, Garmin Pilot, or Jeppesen, but internet sources such as SkyVector are not acceptable. Flights being conducted under VFR must have VFR Charts and flights being conducted under IFR must have IFR Charts).
  - Current Airport Diagram and Chart Supplement for airports of intended use
  - Valid Pilot Certificate, Medical, and Government Issued ID
  - Cross Country Navigation Log with everything except inflight information filled out
- Signed Cross Country Approval form (Only the student's assigned instructor, chief, or assistant chief may sign the Cross Country Approval form or allow airport changes on a signed form)

**I have checked everything listed above:** \_\_\_\_\_  
 (Solo only) Instructor Signature/Date

**Back**

## 14 INSTRUMENT APPROACH SET-UP FLOW

- 14.1 Follow the flow below to set up for an instrument approach. If a particular step is not needed for the type of approach, mention the step and why you are skipping the step.
- 14.1.1 **1 ATIS**—Obtain ATIS and set the altimeters
  - 14.1.2 **2 Approach**—Select the proper approach, get the proper plate out, decide whether or not it will be a circle to land or not, and load it into the GPS.
  - 14.1.3 **3 Communications**—Set up the radios (Comm 1 and Comm 2 active and standby frequencies).
  - 14.1.4 **4 Navigation**—Tune and ID navigation frequencies (Nav 1 for final and Nav 2 for the missed).
  - 14.1.5 **5 Marker Beacons**—Turn on the marker beacons if needed
  - 14.1.6 **6 Timing**—Determine how you will identify the MAP and set up a timer if needed.
  - 14.1.7 **7 Minimums**—Set the minimums bug if you did not set it when you loaded the approach, or if you did not set it when you loaded the approach.
  - 14.1.8 **8 CDI Needles**—Ensure Nav 1 and Nav 2 course selections are appropriate.
- 14.2 **Instrument Approach Set-Up flow diagram.**



## 15 APPROACH BRIEFING

- 15.1 The approach briefing should be completed after the approach set-up has been completed. The intent of an approach brief is to review the set-up for accuracy and plan how the approach will be flown. Go through the plate left to right, top to bottom and discuss how each section applies to you.
- 15.2 Example Brief (See KBFL ILS 30R Approach Plate)

Header: *I am flying the Bakersfield ILS 30R via GMN.*

Briefing Strip: *I already received ATIS, I am talking to approach on 118.8, I have Tower on 118.1 in my comm 1 standby and ground on 121.7 on my comm 2. I have the IBFL Localizer tuned and identified in my nav 1. The final approach course is 301 and the CDI is set under nav 1. The glideslope intersects over Jupex at 2,500 feet and I should be within about 200 feet of that altitude to ensure I am on the accurate glideslope. My DA is 698 feet. Airport elevation is 510 feet and touchdown elevation is 493 feet. The MSA in my area is 3,700 feet and I am currently at 9,000 so I am safe.*



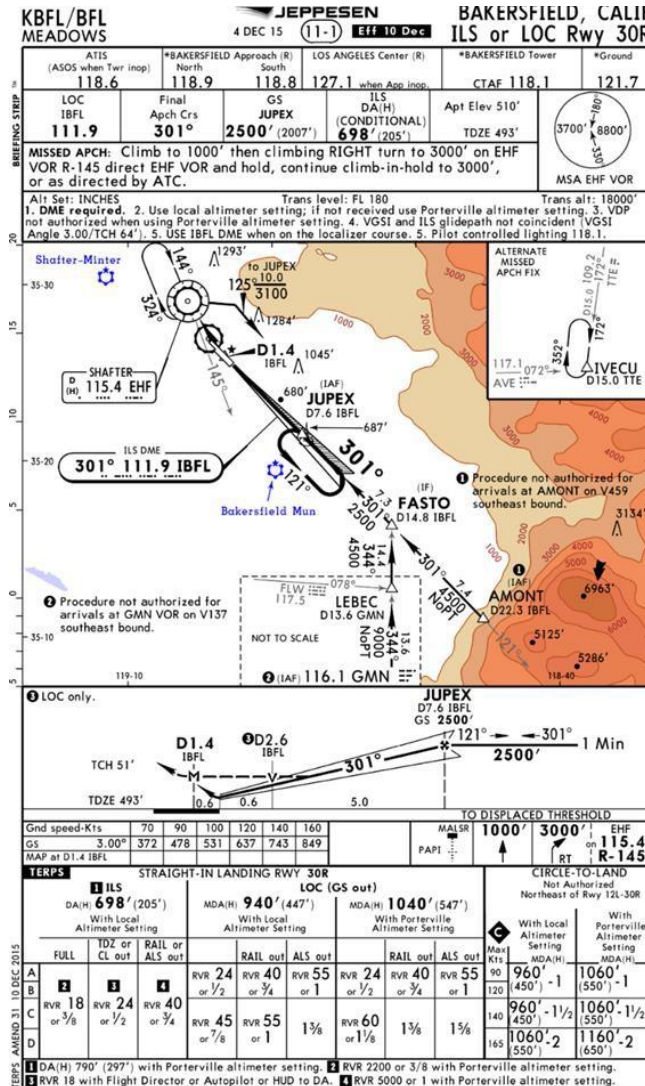
Missed Approach: When I go missed I am going to climb to 1,000 feet and then make a climbing right turn to 3,000 feet on the EHF VOR 145 direct to EHF and hold. I have EHF tuned and identified in my nav 2 and the 145 set in my nav 2 CDI.

Notes: My GPS substitutes for the DME, I have the local altimeter setting, and the VGSI and ILS glidepath are not coincident. It is daytime so the pilot controlled lighting does not apply to me.

Plan View: I will be coming from GMN so I will not do the procedure turn. I need to be at 9,000 feet until LEBEC. After LEBEC I can descend to 4,500 if cleared. I will intercept the final course at FASTO.

Profile View: After reaching FASTO, I can descend to 2,500 feet until intercepting the glideslope. I expect a 90 knot groundspeed on final so my descent rate should be 450 to 500 feet per minute. If I break out I am expecting to see a MALSR with a PAPI on the left.

Minimums: Again, my DA is 698 feet and the ATIS I obtained indicated that I do have the visibility needed for this approach.



## 16 APPROACH PROCEDURES

16.1 You need to start preparing for your approach as early as possible. As soon as you are able to obtain ATIS, listen to ATIS and start setting up for your approach (if you happen to know the approach you will be doing prior to being able to obtain ATIS, you can start preparing early and get ATIS as soon as possible).

16.2 The instrument approach set-up should be completed prior to starting the approach brief as the intent of the brief is to review the set-up and study the plate/plan how to fly the approach. After the brief, the descent and before landing checklists should be completed. Ideally, you should have all of this done and be slowed to approach speed prior to intercepting the final approach course.

### 16.3 IFR Callouts

16.3.1 When starting a checklist call out the checklist—*"Climb Checklist"*

16.3.2 When completing a checklist call out the checklist complete—*"Climb Checklist complete"*

16.3.3 When Climbing or descending call out the following altitudes:

16.3.3.1 *"1,000 feet to climb/descend"*

16.3.3.2 *"500 feet to climb/descend"*

16.3.3.3 *"100 feet to climb/descend"*

16.3.3.4 *"Approaching minimums (within 50 feet)"*

16.3.4 When intercepting final approach course check to make sure you are on the proper mode of navigation and call out: *"On final approach course \_\_\_\_\_ navigation active."*

16.3.5 The T's should be completed any time you cross a fix in holding and the final approach fix. Complete the tasks you need to complete and then use the T's as a memorized checklist to make sure you did not miss anything.

16.3.5.1 *"Twinkle"*—Correct mode of navigation, no annunciations flashing

16.3.5.2 *"Time"*—Timer started

16.3.5.3 *"Turn"*—Turned to required heading

16.3.5.4 *"Twist"*—CDI needle set, heading bug set, altitude bug set

16.3.5.5 *"Throttles"*—Power setting/speed as planned

16.3.5.6 *"Tires"*—Aircraft configured properly (gear, flaps)

16.3.5.7 *"Talk"*—Any required reports made

16.3.6 Any time a CDI needle begins to move call out the needle alive:

16.3.6.1 *"VOR live"*

16.3.6.2 *"GPS alive"*

16.3.6.3 *"Localizer alive"*

16.3.6.4 *"Glideslope alive"*

16.3.7 When executing a Missed Approach:

16.3.7.1 *"Airport not in sight, going missed"*

### 16.4 Archer Configuration

16.4.1 Slow to 90 KIAS indicated prior to intercepting final approach

16.4.2 Add 10° of flaps when beginning the final descent down to DA/MDA (if you will be doing a circle to land, you may wait until you are in the pattern to add the 10° of flaps)

16.4.3 Once in visual conditions continue to slow aircraft and add flaps as appropriate

### 16.5 Missed Approach

16.5.1 The missed approach needs to be well-executed. Missed approaches often catch pilots by surprise, especially when we fly in fair weather where missed approaches are rare. Think of

the missed approach as a go-around followed by a miniature ODP. Missed approaches should be executed when the airport is not in sight at the DA or Missed Approach Point, if there is loss of course guidance, or full-scale deflection of the CDI.

**16.6 When you choose to go missed:**

- 16.6.1 Raise pitch attitude to  $V_y$  as you add full power
- 16.6.2 Once pitch is holding steady, trim the aircraft attitude
- 16.6.3 Raise the flaps
- 16.6.4 Report the missed approach
- 16.6.5 Set up any navigation and turn on course as appropriate
- 16.6.6 Complete the climb checklist
- 16.6.7 Determine the next course of action (i.e. proceed to your alternate, attempt another approach, etc.

## 17 LANDING OPERATIONS

- 17.1 During all landing operations touchdown should occur within the first third of the runway. If this cannot be accomplished, then a go around should be initiated.
- 17.2 Ground roll during touch and go operations should be expedited.
- 17.3 No Stop and Goes on runways less than 6,000'.
- 17.4 To reduce maintenance on the gear system, leave the landing gear extended during go-around procedures, traffic patterns or touch and go landings.

## 18 MAX TEMPERATURE OPERATIONS

- 18.1 No flights shall depart or be planned to where the temperature is above 40C.
- 18.2 Between June 1 and September 1 no cross countries shall go East (ex KTRM, KBLH, KPHX) or North (ex KLAS, KMHV, KDAG) to desert areas unless approved by the Chief or Director of Flight Operations.

## 19 RAMPING OUT AND IN

- 19.1 **Ramping out:**
  - 19.1.1 Text a picture of the hobbs and tach time to the Dispatcher phone with the tail number and "ramping out".
  - 19.1.2 Dispatch should text a due back time. This is the time that you should be walking the binder back into Dispatch, not the time you are tying the aircraft down. If Dispatch does not respond with a due back time then you should prompt them.
  - 19.1.3 Dispatch will also notify you if you are the final flight of the day and need to refuel after the flight.
- 19.2 **Ramping in:**
  - 19.2.1 Text a picture of the hobbs and tach time to the Dispatcher phone with the tail number and "ramping in".
  - 19.2.2 Requesting extended times. If the lesson is running long and you have the time to extend the lesson request an extension via text along with a new proposed time.
  - 19.2.3 Dispatch should text you back the new due back time. They may not be able to extend and in that case you must return at your original due back time.

## 20 EMERGENCY PROCEDURE (EP) OF THE DAY

- 20.1 The “Emergency Procedure of the Day” promotes emergency procedure knowledge and discussion through a systemic review based on the day of each calendar month.
- 20.2 Below is a list of the emergency procedures to be discussed and/or practiced on any given date of the month.

1 <sup>st</sup> Inadvertent stall	17 <sup>th</sup> Electrical fire
2 <sup>nd</sup> Inadvertent spin	18 <sup>th</sup> Wing fire
3 <sup>rd</sup> VFR into IMC	19 <sup>th</sup> Bird strike
4 <sup>th</sup> Icing conditions	20 <sup>th</sup> Landing: split flaps
5 <sup>th</sup> Engine failure: takeoff	21 <sup>st</sup> Landing: elevator control inoperative
6 <sup>th</sup> Engine failure: climb out	22 <sup>nd</sup> Landing: flat tire
7 <sup>th</sup> Engine failure: cruise	23 <sup>rd</sup> Wheel brake failure
8 <sup>th</sup> Partial engine failure	24 <sup>th</sup> Radio failure: lost comms
9 <sup>th</sup> Emergency landing: engine inoperative	25 <sup>th</sup> Alternator overvoltage
10 <sup>th</sup> Low engine oil pressure	26 <sup>th</sup> Alternator failure
11 <sup>th</sup> Precautionary landing: engine operative	27 <sup>th</sup> Vacuum system failure
12 <sup>th</sup> Ditching	28 <sup>th</sup> Air data computer or Pitot-static System Failure
13 <sup>th</sup> Throttle failure/prop overspeed	29 <sup>th</sup> AHRS Failure or Landing Gear System Failures
14 <sup>th</sup> Engine fire: startup	30 <sup>th</sup> Hypoxia or High CO level
15 <sup>th</sup> Engine fire: cruise	31 <sup>st</sup> Incapacitated passenger
16 <sup>th</sup> Cabin fire	

## 21 INCIDENT CONTACT CARD

- 21.1 All students and CFIs should have a copy of the Incident Contact card on their person during flight operations. This card serves as a guide for the notifications that must be made in the event of an emergency or incident. You can pick up an Incident Contact card from Dispatch.
- 21.2 Front of Incident Contact Card:
- 21.2.1 “If Medical Emergency Call 911” This should be your first go to in a medical emergency or any other type situation where immediate fire/medical/law enforcement response is necessary.
- 21.2.2 Note: In flight or on the KRAL flightline you should contact ATC and ask them to call 911. As they need to be aware of the situation and can direct emergency resources to best help you.
- 21.2.3 “Flight Ops Dispatch” The Dispatcher should be your first contact for any nonemergency incident, and your second call after 911 (ATC in flight or on ramp) for an emergency incident. They should be the only person you need to contact, Dispatch will then notify the pertinent people in response to your call (Flight Ops supervisor, Director of Maintenance, Safety Officer, etc). By keeping the people you need to contact to a minimum, your workload is lightened, which reduces stress and keeps communication channels open.
- 21.2.4 “Flight Ops Supervisor” The Flight Ops Supervisor cell phone number is provided if, for some reason, you are unable to get in contact with the Dispatcher. You only need to contact this number if you are unable to reach the Dispatcher.

- 21.2.5 “CBU Safety Services” This number is provided in case you have an issue here at the flight ops building or classrooms and need assistance (Security escort after dark, fire alarm sounding, issues with facility after hours, etc).
- 21.3 Back – Incident Checklist:
- 21.3.1 The Incident Checklist is a quick reference guide on what you should do in the event of an incident, serious or minor. First and foremost take care of any physical issues whether that’s using the first aid kit or calling 911. You should then contact Dispatch and answer the questions provided at a minimum. If possible take pictures of the incident to aid in response and investigation if needed. Any pictures taken should be provided to the Safety Officer at their request.

## 22 SAFETY REPORTING

- 22.1 The Purpose of the Safety Reporting System is to allow CBU pilots, dispatchers, staff, and faculty to voice concerns about safety and or to report specific safety related occurrences whether accidental or intentional. The process of sharing our experiences helps lead to the education and improvement of the program as a whole. Safety Reports play a key role in improving the safety CBU flight operations.
- 22.2 Self- reporting will not trigger disciplinary action. Safety reports are used to educate those involved, as well the department, to improve procedures and operations. The exception to the rule is if a safety related occurrence, or hazard, is observed and reported by a third party. That report may be used by the Safety Officer to investigate the involved person(s) and the information learned may be forwarded to the appropriate leadership if it is determined that blatant disregard for safety or the law is determined to be the cause.
- 22.3 Safety reports are an internal program to CBU and will not be shared outside the institution. This does not mean that outside agencies such as the FAA or NTSB will not be involved in a particular occurrence. It is advised that you always fill out a NASA report, in addition to a CBU Safety Report, as this will help in the event that an outside agency looks into safety related occurrence that you may have been involved with. For information on NASA reports, talk with the Safety Officer or your CFI.
- 22.4 Safety Reports can be submitted using the submitters name, submitted anonymously, or the submitter can opt to allow the Safety Officer to know their name but remain anonymous beyond the Safety Officer. (This is preferred so the Safety Officer can follow up on the report if there are additional questions)
- 22.5 There are multiple ways to access and submit this report. The below QR code is posted around the Flight Ops facility and included with all aircraft binders. In addition, the link below will take you to the form.
- 22.6 Safety Report QR Code:



# Student Safety Guide

## Part 141 Procedures and Practices

Revision 3.1, August 2021

## Index

1. Terms and Acronyms
  2. Weather Minimums
  3. Ramp/ Taxi Operations
  4. Fire Precautions and Procedures
  5. Re-dispatch Procedures
  6. Aircraft Discrepancies/ Return to Service
  7. Fuel Reserves
  8. Collision avoidance
  9. Minimum Maneuvering Altitude/ Simulated Forced Landing Instructions
  10. Practice Area Procedures
- Appendix A  
Appendix B

## 1 TERMS AND ACRONYMS

- 1.1 AGL – Above Ground Level
- 1.2 ATIS - Automated Terminal Information Service – provides weather, runways in use and other important airport information and is broadcast on the ATIS frequency
- 1.3 AWOS – Automated Weather Observing System – An automated system that provides weather at a particular airport
- 1.4 En-Route IFR – Filing of IFR while in flight
- 1.5 FOS – Flight Operations Supervisor
- 1.6 IFR – Instrument Flight Rules
- 1.7 Magneto – Ignition system for the aircraft
- 1.8 Nautical Mile (NM) - approximately one minute of arc measured along any meridian – 6,076 ft
- 1.9 Off Airport – any landings that occur anywhere but an actual runway, such as a field, golf course or freeway
- 1.10 On Airport – Any takeoffs or landings on an actual runway.
- 1.11 PIC – Pilot in Command
- 1.12 POH - Pilot Operating Handbook
- 1.13 Ramp - A paved area around an airport where aircraft can be parked.
- 1.14 Maintenance Squawk – A problem with the airplane that requires attention or repair
- 1.15 Statute Mile (SM) – Normal mile – 5,280 feet
- 1.16 Squawk (ATC) – Term used by ATC to request activation of a Transponder code or function
- 1.17 Squawk (Maintenance) – Term used to describe an aircraft discrepancy discovered during preflight or aircraft operation.
- 1.18 SVFR – Special Visual Flight Rules
- 1.19 Taxiway – Paved strips that allow aircraft to travel between ramp areas and runways.
- 1.20 VFR – Visual Flight Rules

## 2 WEATHER MINIMUMS

### 2.1 Weather Minimums General

- 2.1.1 Students who participate in California Baptist University's flight program must abide by the following weather minimums at all times. All students are required to check the weather via AIM-recommended resources prior to each flight and present the information obtained to his/her flight instructor. An aircraft will not be dispatched unless the current and forecast weather conditions meet the required minimums for each flight and do not exceed the student's personal minimums. If a flight experiences deteriorating weather conditions, students are expected to divert to the nearest/most suitable airport and contact dispatch. Instructors/ students will need to obtain permission to fly when there is an active SIGMET or Convective SIGMET. Permission may be granted on a case-by-case basis by Chief or Assistant Chief Flight Instructor (the Flight Operations Supervisor may also grant this permission at the discretion of the Chief or Assistant Chief). No aircraft will be flown in icing conditions or in visible moisture with an OAT of -10° C to +05° C. All students must abide by AIM recommendations for thunderstorm avoidance. Flight operations will be suspended when a thunderstorm is within 10 miles of the airport.
- 2.1.2 No flight operations shall be performed or planned when the temperature is above 40C.



- 
- 2.1.3 Between June 1 and September 1 no cross countries shall go East (ex KTRM, KBLH, KPHX) or North (ex KLAS, KMHV, KDAG) to desert areas unless approved by the Chief or Director of Flight Operations.
- 2.2 Weather Minimums – Dual Flight**
- 2.2.1 Ceiling and Visibility:
- 2.2.1.1 Traffic pattern: 1,500 AGL; 3 statute miles visibility
- 2.2.1.2 Local VFR: 1,500 feet AGL; 3 statute miles visibility
- 2.2.1.3 Enroute VFR : 2,000 feet AGL; 5 statute miles visibility
- 2.2.1.4 SVFR: Clear of clouds; 1 statute mile (within 5 nm of airport; pilot must be instrument rated and current and aircraft must be IFR current)
- 2.2.1.5 IFR Takeoff Minimums: 100 feet above the lowest instrument approach landing minimums for that particular airport.
- 2.2.1.6 IFR Approaches: 100 feet above the approach minimums for the planned approach.
- 2.2.1.7 Wind: No flight is permitted to exceed 35 knots, including gust factor. The cross wind component is not to exceed the Flight Instructor’s personal minimums. The Maximum Demonstrated Crosswind component, while not a limitation, should not be exceeded. See Appendix B for wind component chart.
- 2.3 Weather Minimums- SOLO or Time Building (Rated Pilots)**
- 2.3.1 Ceiling and Visibility:
- 2.3.1.1 Traffic pattern: 1,500 feet AGL; 3 statute miles
- 2.3.1.2 Local VFR: 3,000 feet AGL; 5 statute miles
- 2.3.1.3 Enroute: 3,000 feet AGL; 5 statute miles
- 2.3.1.4 SVFR: Clear of clouds; 1 statute mile (Students must be instrument rated and current)
- 2.3.1.5 Take off minimums: The highest instrument approach landing minimums for that particular airport. Note: If you cannot take off and make a return landing, then you should not take off.
- 2.3.1.6 IFR Approaches: Highest approach minimums for a particular approach.
- 2.3.1.7 Wind: No student is permitted to land with wind conditions in excess of 20 knots, including gust factor, and a 10 knot cross-wind component. See Appendix B for wind component chart.
- 2.3.1.8 Students flying in instrument meteorological conditions (IMC) must have two current instrument-rated pilots onboard, prior experience in actual IMC, and the approval of the Chief or Assistant Chief Flight Instructor.
- 2.4 Weather Minimums- SOLO (Student Pilot)**
- 2.4.1 Traffic Pattern: 2,000 feet AGL; 5 statute miles
- 2.4.2 Local VFR: 3,500 feet AGL; 5 statute miles
- 2.4.3 Enroute: 5,000 feet AGL; 7 statute miles
- 2.4.4 SVFR: Not permitted
- 2.4.5 Student Pilots are not permitted to conduct solo flights unless an instructor has reviewed the weather conditions, approved the flight, and is present for dispatch. (Local or Cross Country flights).
- 2.4.6 Wind - No student pilot is permitted to land with wind condition in excess of the following:
- 2.4.6.1 First solo: 7 kts headwind, 5 kts crosswind
- 2.4.6.2 Subsequent solos: Local: 12 kts headwind, 8 kts crosswind/ Cross country: 10 kts headwind, 5 kts crosswind
- 2.4.6.3 The flight instructor will determine additional wind limitations for each student individually and endorse his or her logbook, however, limitations will not exceed CBU limits. All student pilot landings must be to a full stop and taxi back. See Appendix B for wind component chart.

### **3 RAMP/TAXI OPERATIONS**

#### **3.1 On the Ramp and Engine Start**

The main ramp for CBU is located in a hot spot not visible from the control tower. All persons operating on the ramp are required to exercise extreme caution as extensive helicopter, vehicle and aircraft activity are present.

3.1.2 Flight Instructors and students will wear a CBU ID and lanyard at all times on the CBU ramp in order to easily be identified as a CBU staff member or student. All aircraft are required to be pulled out 90 degrees perpendicular to the tie down spots prior to engine start.

3.1.3 When walking on the ramp please be vigilant to your surroundings as our ramp can be a high movement area between flight school operations, helicopter operations, maintenance operations, and vehicle activity. All use of headphones, earbuds, or any other form of in or on ear audio listening devices is prohibited.

3.1.4 When accompanying passengers to the ramp, each passenger should be briefed on safety procedures around the airplanes. Prior to conducting a pre-flight inspection, always ensure the magneto switches are in the "Off" position. No person should go near the aircraft propellers unless conducting a pre-flight inspection. Hand propping is not allowed under any circumstance.

3.1.5 Aircraft are never to be started from a position in which their prop wash will blow onto another aircraft or into an open hangar. Be sure to pull the aircraft out 90° from the parking spot when on the CBU ramp to ensure the prop wash will not blow any debris towards other aircraft or hangers. When on other ramps give care towards the objects and buildings behind the aircraft.

3.1.6 Immediately prior to starting the engine(s), shout "CLEAR" and verify the propeller area is clear. The fin strobe light should be in the ON position prior to starting engine(s).

3.1.7 Do not taxi over tie-down chains or with wings within 2 feet of any obstacle unless you have someone outside of the aircraft to help you maintain clearance. All taxiing on the ramp should be no faster than a medium walk.

#### **3.2 Taxi Operations**

3.2.1 Prior to taxiing, pilots are required to check ATIS/AWOS if available. Pilots should conduct brake check before continuing with the taxi. Taxiing should be smooth without excess brake usage. A differential braking technique is only to be utilized when operationally needed.

3.2.2 All pilots are required to have current taxi diagrams for each airport of intended use if there is a published diagram. Taxi routes are to be checked against the diagram after receiving clearance before taxiing (at untowered fields, check the taxi diagram prior to leaving parking). Taxi instructions should be written down. Do not write or complete written checklists while the aircraft is in motion (you may do a memorized flow procedure, but you must wait until the aircraft is parked to back it up with the written checklist).

3.2.3 When taxiing around other aircraft, vehicles, people, etc. on the ramp, the ground speed should be no faster than a normal walking pace. The PIC is responsible for ensuring there is adequate clearance between objects. When taxiing near other aircraft/vehicles be aware of the potential dangers of prop blast from other aircraft. Care should be taken to avoid damaging other aircraft/property with the aircraft's prop blast.

3.2.4 When the aircraft is safely on the taxiway, the taxi speed should be such that the aircraft may be safely stopped on the taxiway should the need arise. Pilot skill set, weather, airport conditions, and other safety concerns should be accounted for when choosing a taxi speed. Prior to crossing an active/non-active runway or taxiway, slow down to verify there is no conflicting traffic prior to crossing. Turn on all lights before crossing any runway.

3.2.5 While taxiing, use proper aileron and elevator deflection appropriate for the wind conditions. Wind correction inputs should be carefully considered when operating in vicinity of helicopters with rotors spinning as the airflow may overpower the surface winds.

3.2.6 Maintain a constant scan for obstacles, aircraft, vehicles, etc. as taxiway centerline markings do not always ensure obstacle clearance. Do not write down instructions, back up a written checklist or do any other task that could interfere with taxiing.

3.2.6 Riverside airport has a cross runway for when the winds are coming from the North. CBU ramp leads to taxiway B which leads to runway 34. Taxiway B sign on the left side of the taxiway denotes the start of taxiway B and is easy to miss. Please give caution not to incur upon the taxiway. Runway 34 also has a unique runup area in which the aircraft must maneuver to face north to prevent the prop blast from hitting off airport buildings. Please give care and consideration when maneuvering for the runup.

3.2.7 Aircraft should not be taxied into the tie down spots. Stop in front of tie down spots and push aircraft in to spot utilizing tow bar.

### 3.3 Securing Aircraft Post Flight or When Not in Use

3.3.1 The aircraft should not be taxied into the tie down spots. Aircraft should pull in 90 degrees to parking spot as to avoid prop blast on parked aircraft which. After the aircraft has been properly shut down, it should be pushed back with a tow bar into the desired parking spot. The aircraft should be tied down with all three chains and the nose wheel chalked with the parking brake of when the aircraft will be left unattended.

3.3.2 Verify all the switches (except the fin strobe/beacon) are in the OFF position, the flight controls are secured and the doors locked when the aircraft will be left unattended. At the conclusion of each flight, the aircraft keys and binder should be returned to dispatch immediately

## 4 Fire Precautions and Procedures

4.1 There is no smoking allowed within the vicinity of any CBU aircraft. Smoking is a fire hazard and is prohibited both on ground and inflight operations.

4.2 If there is an engine fire on the ramp or in-flight, follow the emergency procedures checklist and utilize the fire extinguisher on board each CBU aircraft (if needed).

4.3 The master switch must be in the OFF position when fueling. Do not dispose of fuel onto the ground when sumping. Unless contaminated, fuel from the sumps should be returned to the aircraft fuel tanks.

4.4 Any fire on the ramp should be reported to the Control Tower immediately (via radio or phone, they will notify 911), if the tower is closed call 911

## 5 Re-Dispatch Procedures

4.5 **On Airport:** If an unscheduled landing occurs, call dispatch immediately after the aircraft has been properly secured. Dispatch will need the names of everyone onboard, n-number, airport, a contact phone number, and the reason for the diversion. Dispatch will provide the necessary assistance and if the crew needs to be put into contact with anyone else, dispatch will arrange it. Dispatch will facilitate re-dispatch as needed (the FOS may be involved depending upon the situation). A student pilot will not be allowed to leave the unscheduled airport if he/she does not have the required logbook endorsement for that airport. Dispatch will arrange for the student and aircraft to return to CBU based upon the specific circumstance.

- 4.6 **Off Airport:** It is prohibited to fly an aircraft from an off airport landing site. Once the aircraft is properly secured, contact dispatch immediately. The Chief Flight Instructor or a CBU representative will notify the proper authorities and send someone to retrieve the aircraft.

## 6 Aircraft Discrepancies/Return to Service

- 6.1 **Preflight:** If an aircraft irregularity or discrepancy is discovered during a pre-flight, the PIC should notify dispatch immediately and will fill out a Discrepancy Report if maintenance is off duty. Dispatch will contact the aviation maintenance department for guidance on how to proceed. Dispatch will update the PIC on the course of action maintenance determines will be taken with the reported squawk. The Squawk will be resolved in accordance with FARs to determine if the flight can proceed or should be canceled.
- 6.2 **Taxi/Run-up:** If a discrepancy is noticed prior to departure, return the aircraft to the ramp and notify dispatch and complete a Discrepancy Report if requested.
- 6.3 **In Flight/Post Flight:** If the discrepancy is noticed during flight, then the PIC should consult appropriate checklists/POH and respond accordingly. If the discrepancy does not constitute an emergency, land as soon as practical and notify Dispatch after landing and complete a Discrepancy Report if requested.
- 6.4 If the aircraft is not in airworthy condition, the aircraft will be downed in TALON and dispatch will remove it from the flight schedule until returned from maintenance. Once the aircraft is returned to an airworthy condition, the mechanic will remove the restriction from the flight schedule and the aircraft will be available for use again.

## 7 Fuel Reserves

- 7.1 California Baptist University requires a minimum of 1 hour fuel reserves for all flight operations. The Chief Flight Instructor, Assistant Chief Flight Instructor, or FOS may grant approval to operate to 30 minutes reserve during day VFR or 45 minutes reserve for night and/or IFR operations on a case-by-case basis.
- 7.2 Weight and balance permitting, fuel should be at the aircraft maximum capacity at the beginning of all cross country flights.

## 8 Collision Avoidance

- 8.1 **Ground:** In the ramp area, prior to starting the aircraft engine(s), pilots should verify the area is clear. Always have an airport diagram and be aware of hot spots and congested areas. Prior to making any turns, check for traffic. Never cross a runway or taxiway without clearance or making the appropriate radio call. Maintain safe separation when taxiing behind other aircraft and be alert for potential propeller/jet blast. Never assume an aircraft or vehicle will stop even when they have been asked to hold. When parking, ensure adequate separation from obstacles and when in doubt, shut down the aircraft and ground handle the aircraft into position.
- 8.2 **Air:** During all phases of flight, it is critical to scan for traffic. Prior to making any turns, clear the area. Clearing turns are required prior to conducting maneuvers. Flight following is required on an ATC workload basis on cross-country flights, especially in congested areas. Make position reports on practice area frequencies when available and listen for other reports. Pilots should use proper Right of way rules as found in FAR 91.113.

## 9 Minimum Maneuvering Altitudes/Simulated Forced Landing Instructions

### 9.1 Minimum Starting Altitudes

- 9.1.1 Simulated Engine Failure (Single Engine): 500-1000 AGL (Sparsely or populated areas)
- 9.1.2 Simulated Engine Failure (Multi-Engine): 1,500 feet AGL
- 9.1.3 Engine Failure/Shutdown (Multi-Engine): 5,000 feet AGL
- 9.1.4 Maneuvers (Single-Engine): 1,500 feet AGL
- 9.1.5 Maneuvers (Multi-Engine): 3,000 feet AGL
- 9.1.6 Ground reference maneuvers: 600 to 1,000 feet AGL

### 9.2 Minimum Recovery Altitudes

- 9.2.1 Stall recovery must be completed no lower than 1,500 feet AGL.  
Note: Practice emergency procedures are not permitted on solo flights.
- 9.2.2 Spin training is only permitted during dual flight instruction, and the recovery must be completed by no lower than 1,500 feet AGL.

### 9.3 Simulated Forced Landings

- 9.3.1 In order to prevent causing excessive wear on the aircraft engine the following procedures will be followed:
  - 9.3.1.1 During practice of engine failures, cycle the throttle every 1,000 feet to ensure proper engine operation and to help warm the engine.
  - 9.3.1.2 During practice of emergency procedures such as emergency descents and engine failures, the oil temperature should be monitored as an indicator of engine temperature.
  - 9.3.1.3 If applicable, carburetor heat should be utilized while the throttle is reduced for the emergency, however, must be turned off when adding the throttle back in.
  - 9.3.1.4 When commencing recovery from the simulated emergency, the throttle should be gently added from idle to full in about two seconds or more as rapid throttle movement may result in an actual engine failure.
  - 9.3.1.5 Emergency descents in the Seminole should be done with the cowl flaps closed and shall be completed no lower than 1,500 feet AGL. The maneuver should be completed no lower than 500 feet AGL in a single-engine aircraft.

### 9.4 Minimum Safe Altitudes

- 9.4.1 All flight operations should abide by the minimum safe altitudes listed in FAR 91.119.

## 10 Practice Area Procedures

### 10.1 General

- 10.1.1 The majority of CBU aircraft maneuvers are accomplished in three local practice areas. As stated earlier, during all phases of flight it is critical to scan for traffic. Prior to making any turns scan for traffic.
- 10.1.2 In the practice area, make frequent radio calls announcing intentions. It is appropriate to make a radio call each time there is a change in altitude or location. Prior to each flight maneuver, perform two 90° clearing turns and announce intentions on practice area frequency.
- 10.1.3 See Appendix A for practice area map.

### 10.2 CBU Flight School may operate at these five practice areas:

- 10.2.1 Lake Matthews: Frequency 123.50
- 10.2.2 Rialto: Frequency 123.30
- 10.2.3 Santa Fe: Frequency 123.30
- 10.2.4 La Habra: Frequency 123.30
- 10.2.5 Redlands So

10.2.6 uth: Frequency 123.30

10.2.7 March South East: Frequency 122.775 (Perris Valley)

**10.3 Entry Procedures**

**10.3.1 - KRAL to Lake Matthews:**

10.3.1.1 Request a left cross-wind departure to Lake Matthews. Do not ascend above 2,500 feet MSL until approaching the 91 freeway to avoid Class C airspace.

10.3.1.2 Once exiting Riverside class D airspace, make the appropriate radio call to Lake Matthews announcing position and intentions.

**10.3.2 - KRAL to Rialto (Cajon Pass) Practice Area:**

10.3.2.1 Request a right cross-wind departure to Rialto. Transition northbound and do not ascend above 2,500 feet MSL. When transitioning through Flabob, announce intentions on 122.8. Remain at or below 2,500 feet MSL until exiting the class C outer shelf. You may also request a clearance through the Class C airspace. Once approaching the practice area, make the appropriate radio call announcing position and intentions.

**10.3.3 - KRAL to Santa Fe Practice Area:**

10.3.3.1 Request a strait out departure to KCNO (Chino Airport). Once exiting Riverside Class D airspace, contact Chino tower on 118.50 and request a transition towards KPOC (Brackett Field). Remain clear of class C airspace for KONT (Ontario International), unless clearance has been obtained. Follow the 71 freeway northbound towards Brackett. Once exiting Chino airspace, contact Brackett tower on 118.20 and request a transition to the Santa Fe practice area.

**10.3.4 - KRAL to La Habra Practice Area:**

10.3.4.1 Request a strait out departure to KCNO (Chino Airport). Once exiting Riverside Class D airspace, contact Chino tower on 118.50 and request a westbound transition to La Habra practice area. Remain clear of class C airspace for KONT (Ontario International), unless a clearance has been obtained. Once exiting Chino Airspace and approaching the practice area, maintain position below the overlying class B airspace and make appropriate radio call announcing position and intentions.

**10.3.5 - KRAL to Redlands South Practice Area:**

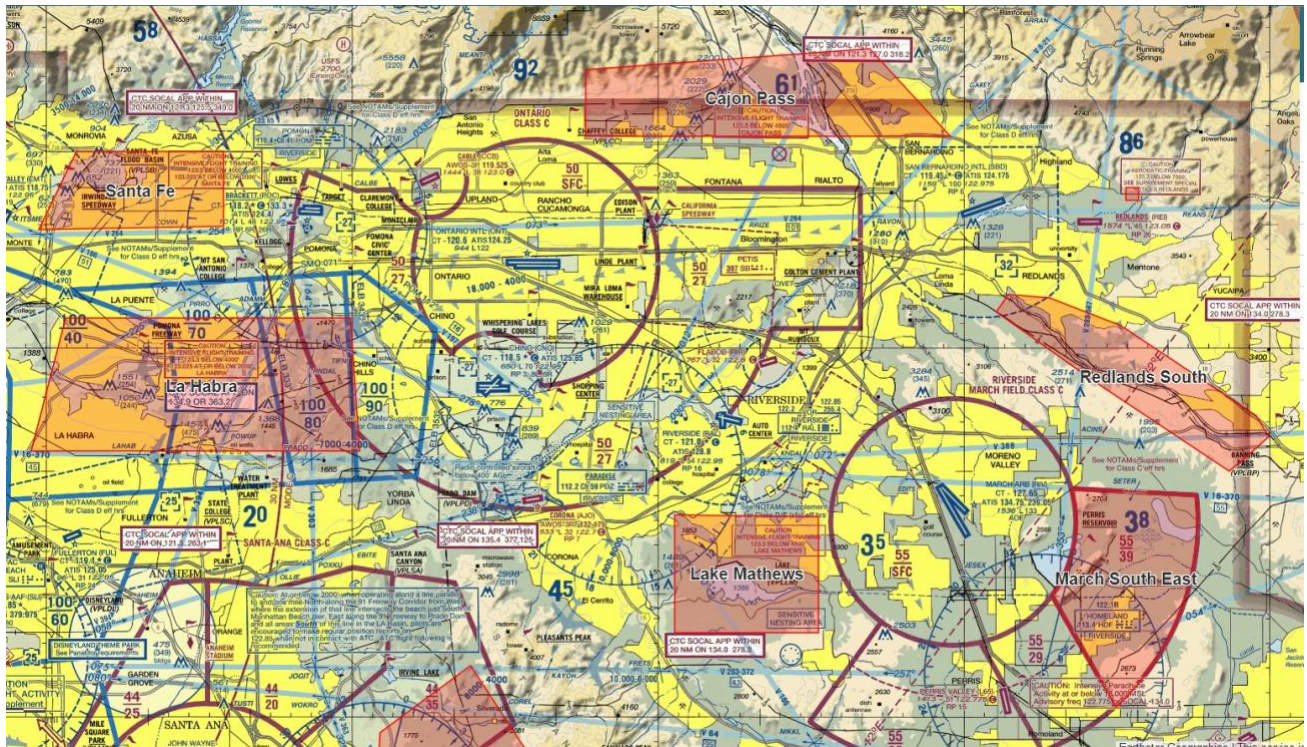
10.3.5.1 Request a right downwind departure to Redlands South. Transition straight eastbound from Flabob (KRIR) and remain clear of class C airspace for KRIV (March ARB), unless a clearance has been obtained. Once approaching the practice area, make appropriate radio call announcing position and intentions.

**10.3.6 - KRAL to March South East Practice Area:**

10.3.6.1 Request a downwind departure toward March. When able, either request an early frequency change or once clear of Riverside class D airspace contact March tower on 127.65 and request an eastbound transition. Do not enter or begin to transition March class C airspace until a clearance has been obtained. Once east of Perris Reservoir, maneuver at or below 3,500 feet MSL and make appropriate radio call announcing position and intentions.

## Appendix A

### Practice Areas



**Appendix B**

Wind Component

