2024-25

Texas Southern University

Student Pilot Handbook

For the Pilot Training Program

(Parts 61 and 141)

Welcome to Flight Training at TSU Southern University

This handbook contains important information for student pilots seeking pilot certification at TSU. Safety is the highest priority in flight training; in this book you will find some of the procedures TSU uses to ensure safe flight operations.

The procedures and limitations contained in these pages are meant to supplement information provided by the Federal Aviation Administration and the aircraft manufacturers regarding the safe operation of airplanes. This handbook does not replace the training provided by your Flight Instructor. All students must obtain at least one professional pilot certificate from TSU to graduate as a Professional Pilot Concentration student.

Feel free to print this handbook and use it as a reference during your flight training at TSU.

Note: This handbook provides information on weather limitations, safety procedures and practices, as required by 14 CFR §141.93. The student's primary flight instructor may require higher ceilings and/or lower maximum wind limitations at any time and will provide a logbook endorsement in the student's pilot logbook.

Any student pilots conducting solo flight training lessons in the private pilot certification course, and hold only an FAA Student Pilot certificate, will meet the minimum requirements for those listed as Solo.

The following limitations apply to **ALL TSU aircraft**:

WEATHER LIMITATIONS

	Ceiling (AGL)	Visibility (SM)
Local-Dual		
Day	1,500’	3
Night	2,500’	5
Local Pattern-Solo	2,000’	5
Local-Solo	2,500’	5
VFR X/C-Dual		
Day	2,500’	5
Night	3,000’	5
VFR X/C Solo	2,500’	5

Pilot-in Command Time	Lowest Approach Minimums
Actual IMC	
<100 Hrs. Actual IMC	Circling Mins. For Approach
>100 Hrs. Actual IMC	Straight-In Mins. For Approach

WIND LIMITATIONS

	(Knots)
Maximum Wind -Dual (Including Gust Factor)	25
Maximum Wind – Solo (Including Gust Factor)	12
Maximum Crosswind Component **Solo** **(Including Gust Factor) Dual**	**7** 15
Maximum Tailwind Component **Solo** **Dual**	5 10

Note: Hard ground when snow and frost on wings, thunderstorms within 20nm

MINIMUM ALTITUDES

Single-Engine	Altitude (AGL)
All Ground Reference Maneuvers	800’
Steep Turns Slow **Flight Stalls** **Chandelle** **Lazy 8’s**	1,500’
Steep Spirals (Begin No Lower Than 3,500’ AGL)	1,500’

Multi-Engine	Altitude (AGL)
Steep Turns **Slow Flight Stalls**	3,000’
V_{mc} Demonstration	3,000’ or per POH, whichever is higher

SIMULATED EMERGENCY LANDINGS AND MINIMUM ALTITUDE LIMITATIONS

(1) All simulated emergencies practice shall be conducted on dual flights. STUDENTS ON SOLO FLIGHTS SHALL NOT PRACTICE SIMULATED EMERGENCIES.

(2) Emergency landing practice shall not be conducted over congested areas, on an airway or within a 5 NM radius of an airport.

(3) No practice emergency landings shall be carried to a height of less than 500 feet above the surface.

(4) None of the foregoing is meant to preclude the practice of emergency procedures at an airport where, in the judgment of the flight instructor, the procedure can be carried to a safe landing without disruption of other airport traffic.

(5) Stalls shall not be practiced over any congested area or within a 5 NM radius of an airport.

(6) Stalls shall be practiced at an altitude that permits stall recovery at least 1,500 feet above the ground.

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I. Flight Training at TSU Southern University

A. The Pilot Flight Training Program

Requirements and Eligibility:

All admitted students who are considered for acceptance into the Texas Southern University Aviation Science Professional Pilot Concentration must:

1. Be interviewed by the Chief Pilot
2. Provide a two-page essay ("Why do I want to become a Professional Pilot")
3. Possess a first-class medical certificate prior to entering the flight program
4. Have $5,000 on their student account dedicated to flight fees
5. Non-citizens must have TSA clearance
6. All students must be in good standings with the University and have no open Student Conduct cases. Each student at Texas Southern University is expected to become familiar with all published policies, rules, and regulations of the University. The Student Code of Conduct contains information pertaining to the university's jurisdiction over student behavior, academic and non-academic violations and potential sanctions available when a violation occurs. All students are strongly encouraged to read and understand the Student Code of Conduct. The student is responsible for any violation of the policies, rules, and regulations.

   For additional information about the Office for Student Conduct and Judicial Affairs, please visit: https://www.tsu.edu/students-services/departments/student-conduct/pdf/student-code-of-conduct.pdf

7. Students are required to show up on time for flight training. If students show up late for flight/ground lessons more than TWO times, they will be moved out of the flight program.

All Professional Pilot Students must:

1. Maintain a 2.8 cumulative GPA to remain in the program
2. To be eligible for a TSU Aviation scholarship you must have a minimum of a 3.5 cumulative GPA. Hardship cases will be considered.
3. If transferring from another Institution or TSU Degree program have at least a 2.8 cumulative GPA
4. Remain in good financial standing with the university
5. If a veteran, are in good standing with the VA
6. Pass any FAA written test after no more than two attempts on the same examination.
7. If a student fails three quizzes given by the Chief/Assistant Chief Flight Instructor, they will be moved to the Aviation Science Management Concentration instead of the Professional Pilot Concentration.
8. While at TSU, fail only one check ride while enrolled in the Professional Pilot program. A second failure at any point in the curriculum will constitute a removal from the flight program. Students are still eligible to continue in another aviation concentration or TSU program.
9. Buy Gliem Pilot kit from the bookstore for Private Pilot, Instrument, and Commercial ground as a pre-requisite for registration. A headset is not included in the kit. Please see Chief Pilot for more information.
10. Professional Pilot students must not receive an "F" in their FAA ground courses or flight labs. Any student who does will be removed from the flight program.

11. Professional Pilot students will receive an "Incomplete" (I) for a ground school course until they successfully pass the FAA written exam.

12. By TSU policy, an "Incomplete" (I) grade must be satisfied within two consecutive semesters. Failure to do so will result in the grade automatically converting to an "F." For Professional Pilot students, receiving an "F" under these circumstances will lead to removal from the program.

The TSU Flying Tiger Scholarship is designed to support students enrolled in Texas Southern University's aviation program. To be eligible, applicants must meet the following criteria:

1. **Enrollment:** Currently enrolled in TSU's aviation program.

2. **Academic Performance:** Maintain a minimum GPA of 3.5

3. **Certification:** Possess valid medical and student pilot certificates.

4. **Passion and Conduct:** Students must demonstrate a strong passion for aviation, represent themselves and the university positively in both private and public settings, and exhibit community involvement.

5. **Financial Need**: Show evidence of financial need.

6. **Attendance**: Maintain exceptional attendance and punctuality.

7. **Recommendations**: Provide a letter of recommendation from a flight instructor or aviation professional, if required.

Scholarship awards are either $2500 or $5000 per semester, depending on financial need and available budget. **Students must consistently meet the eligibility criteria to continue receiving the scholarship each semester.** The Executive Director of Aviation is responsible for awarding and renewing these scholarships based on the outline requirements.

Flight Instruction:

Flight Instructors at Texas Southern University adhere to the Gleim Private Pilot Syllabus. This program consists of three stages each of which concludes with a “Stage Check”. You will also take an “End of Course Check” upon program completion to confirm you meet the Airman Certification Standards (ACS) for the FAA Private Pilot – Airplane Single-Engine Land (ASEL) Practical Test.

The first stage focuses on the fundamentals, safety of flight, normal procedures, and certain emergency procedures. The goal of this stage is to become proficient enough to complete your first solo flight in the traffic pattern. The stage concludes with the Stage 1 Check in which your ability to perform maneuvers in the practice area on your own is evaluated.

Dress code:

Plan for an unexpected off-field landing—dress for the egress while maintaining professionalism. Wear closed-toe shoes, long pants, and sleeved shirts, t-shirts, or blouses. Avoid wearing sandals, “Crocs,” shorts, skirts, tank tops, or clothing that exposes the midriff or shoulders. This dress code ensures safety and a professional appearance during flight training. Wear of TSU ID badge while out on the ramp.

Solo Flight: A flight in which the student pilot is the pilot in command with no instructor or passengers on board.

The second stage consists of more advanced training. You will learn to fly at night and how to navigate using pilotage, dead reckoning, VOR, and GPS navigation. You will also learn more advanced procedures such as taking off and landing at smaller airports and grass runways. You will also learn how to safely plan and perform cross-country flights. The stage concludes with the Stage 2 Check in which your ability to act as pilot in command (PIC) in a cross-country flight is evaluated.

Note:

1. No person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed—

(1) During the day, to fly after that for at least 30 minutes; or

(2) At night, to fly after that for at least 45 minutes.

2. No person may operate a civil aircraft in IFR conditions unless it carries enough fuel (considering weather reports and forecasts and weather conditions) to—

(1) Complete the flight to the first airport of intended landing;

(2) Except as provided in paragraph (b) of this section, fly from that airport to the alternate airport; and

(3) Fly after that for 45 minutes at normal cruising speed or, for helicopters, fly after that for 30 minutes at normal cruising speed.

Cross-Country Flight: A flight performed to another airport. For certification purposes, these flights must be to an airport at least 50nm away.

Pilotage: A technique to determine your position by relating exterior visual references (i.e., roads, lakes, towns) to an aeronautical chart.

Dead Reckoning: A technique used to mathematically estimate a current or future position by using course, time, and airspeed estimates.

VOR Navigation: Stands for Very-high frequency Omnidirectional Range. Involves the usage of ground-based radio stations for navigation. A pilot uses a receiver that allows him/her to navigate from one VOR station to the next.

GPS Navigation: Navigating using a receiver utilizing the Global Positioning System satellites.

Nautical Miles (nm): The customary unit used to measure distances in aviation. Equal to 6,076' (1,852m) or about 1.151 miles.

The final stage focuses on improving the skills you have acquired in the previous two stages. You will review the procedures and maneuvers you have learned as well as complete the solo cross-country flight requirements. This stage concludes with the Stage 3 Check in which your procedures and maneuvers are evaluated in preparation for the End-of-Course (EOC) Check.

The End-of-Course Check is like the Practical test you will receive from the FAA Designated Pilot Examiner (DPE). This check is designed to be a dry run of the practical test to ensure you have acquired the skills and knowledge required to pass the test and earn your Private Pilot Certificate.

Designated Pilot Examiner (DPE): An individual who the FAA has given the privilege of performing practical tests for the issuance of a pilot certificate.

It is highly recommended that you purchase Gleim's Private Pilot, Instrument and Commercial Syllabus' to keep track of each of the lessons in the course. This will allow you to better prepare for each lesson as you will know what material will be covered.

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14 CFR: Title 14 of the Code of Federal Regulations (CFR) which covers Aeronautics and Space. Also known as the **Federal Aviation Regulations** (FAR)

B. Part 61 vs. Part 141

Texas Southern University provides training under both 14 CFR Part 61 and 14 CFR Part 141. You will receive the required amount of training, in the same class of aircraft, and with the same caliber of instructors regardless of which part you train under. The difference between the programs is how strictly you will have to adhere to the training syllabus.

Training under Part 61 allows for more flexibility. Stage Checks can be performed by any experienced Certificated Flight Instructor (CFI) and the order of the lessons may be altered. The requirement for completion is that all training is received, the minimum amount of flight training hours is completed, and that a sufficient level of proficiency is achieved.

Training under Part 141 is stricter. Stage Checks and the End of Course Check may only be conducted by approved Check Instructors and the lessons must be completed in the approved order.

The stricter training syllabus required by Part 141 is offset by a lower minimum hour requirement. Part 141 training has a minimum requirement of 35 hours total time, while Part 61 requires 40 hours. This fact is of little importance to most students since the average flight training time is 50-70 hours.

You should train under 14 CFR Part 141 if:

- It is required by an agency that is providing financial aid such as scholarships and grants.
- It is required by an institution of higher learning to receive credit.
- It is required because you are receiving flight training under an M-1 Student Visa (vocational training)

You should train under 14 CFR Part 61 if:

- Your situation is not one of the above.

You may use the Texas Southern University UNICOM frequency to request services while you are in flight or on the ground at Ellington Airport. You may use this frequency to request information from the flight instructor including:

- Requesting aircraft servicing such as oil, fuel, or an airplane tug.
- Requesting assistance when dealing with an emergency or malfunction in flight.
- Requesting a weather report.
- Requesting advice from a Texas Southern University instructor.
- Advising the Chief Pilot or Assistant Chief Pilot of a late arrival while in flight.

Texas Southern University UNICOM Radio Frequency:

122.95MHz

UNICOM: A radio station operated by a private agency for the purposes of providing services to aviation

The Transportation Security Administration (TSA) requires that U.S. citizens show proof of citizenship to the flight school prior to the start of flight training. The school is also required to keep a copy of this proof for 5 years. This proof may be one of the following:

- Current U.S. Passport (original)
- Birth Certificate (Original or Certified copy) and a current government issued photo I.D.
- Certificate of Birth Abroad and a current government issued photo I.D.
- Naturalization Certificate and a current government issued photo I.D.

You may also receive flight training towards a private pilot certificate if you are a legal permanent resident of the U.S. (green card), a temporary worker (work visa), or foreign student (student visa).

Individuals in these situations are required to complete a TSA Background Check. Please contact the flight instructor if this is your situation to receive more information.

Non-U.S. residents who wish to take flight training towards a career will have to receive an M-1 Student Visa. Please contact he flight instructor for requirements.

E. Airport Security

Texas Southern University must meet certain security standards due to the presence of commercial operations at Ellington Airport. This includes controlling who is allowed through our office and escorting individuals on the ramp. You must follow these rules while you are a student at Texas Southern University:

- **Do not –** Allow other people through the office, they must be approved by our Executive Director or Chief Pilot instructor.
- **Do not –** Share keys or the gate code with anyone else.
- **Lock** unattended aircraft.
- **Do not share access codes with anyone outside of TSU flight instructors or students.**
- **Report** any suspicious activity to Texas Southern University personnel.
- **Call 911** in case of emergency, the Snohomish County Sheriff Department oversees security at Ellington Airport.

Students must be escorted by Texas Southern University personnel while on the ramp unless they have received their student pilot certificate and are performing their duties as a pilot.

Ramp: The area where aircraft are parked

F. Emergency Equipment

Our First Aid Kit is in the kitchen. Fire extinguishers are found in the following locations:

Outside of the exit door to the ramp.

Additional fire extinguishers are located at the fuel pumps.

Some airplanes are equipped with fire extinguishers. Your CFI will brief you on their location and use.

If it is necessary to evacuate the building:

- Assemble at the parking lot by the pedestrian gate

In case of emergency **call 911**. Firefighting services are provided by Ellington Airport Aircraft Rescue and Fire Fighting (ARFF).

G. Use of Safety Belts

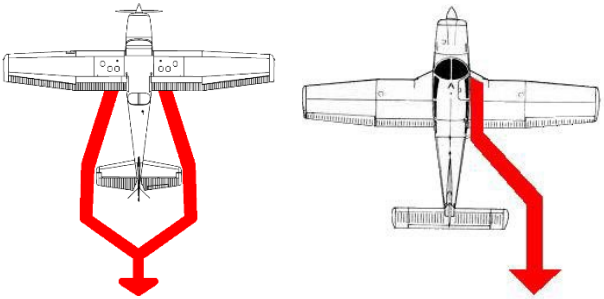
All occupants must wear seat belts and shoulder harnesses for the duration of a flight to avoid potential injuries and to maintain airplane control when encountering unexpected turbulence. Your CFI will brief the use of safety belts and shoulder harnesses specific to your airplane.

The FAA requires flight crewmembers to wear their seat belts whenever at their stations. Wearing shoulder harnesses is required during takeoff and landing unless it interferes with the crew's duties (14 CFR 91.105).

H. Emergency Exits

Your instructor will provide a briefing on how to open the doors and/or emergency exits of your airplane. If it is necessary to evacuate the airplane, you should take the nearest available exit then move towards the rear of the airplane.

Avoid the front of the airplane, if possible, due to the presence of the propeller and risk of fire.



I. Use of Checklists

Airplanes are complicated vehicles which have procedures with many steps that must be performed in the correct order to operate safely. You should use the checklists provided by Texas Southern University as an aid to remember all the steps required to be performed for each procedure. You may use a different checklist if it is approved by your instructor.

There are two checklist usage methods:

- Read-and-Do

  Read and complete each step individually as it appears in the checklist

- Do-and-Verify

  Perform all the steps of a procedure from memory, then verify that all steps were completed by reading the checklist

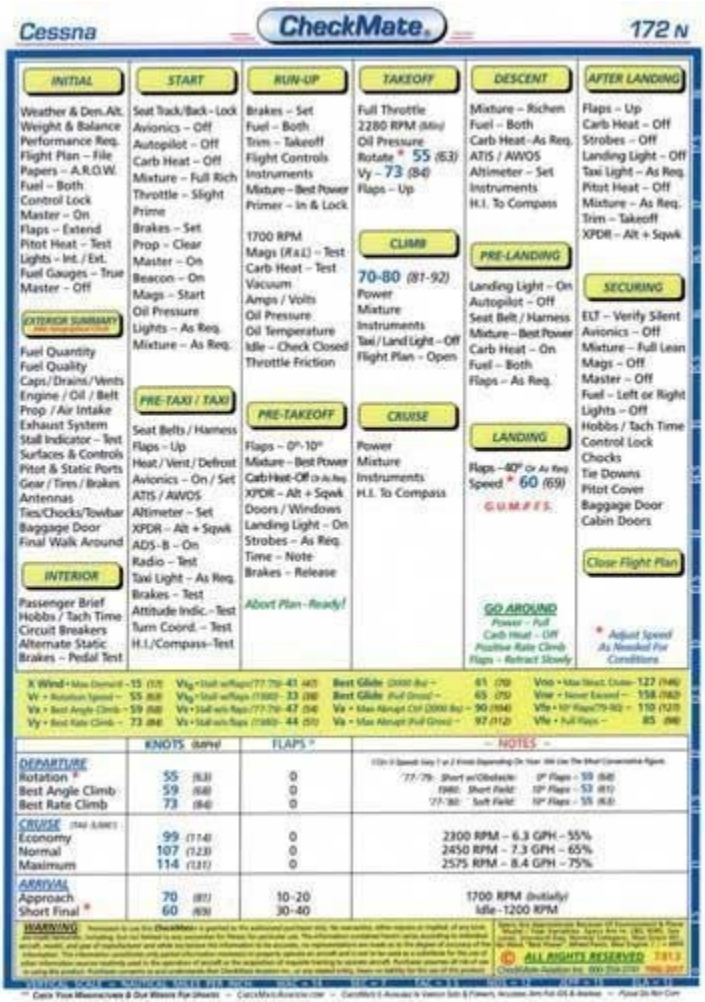
Both methods are used depending on the situation. The “read-and-do” method is used when ample time is available to complete a checklist and for complex operations with many steps. The “do-and-verify” method is used during time-sensitive situations, like emergencies, or for simple and routine procedures.

A common method to memorize procedures is called a “flow check”. In this method you start on one side of the flight deck then work your way to the other side of while setting each switch or control as required.

Example flow check from the C-172 Pre-Landing Checks:

1. **Fuel Selector - BOTH**
2. **Mixture - FULL RICH**
3. **Carb Heat - ON**
4. **Lights - AS REQUIRED**
5. **Primer - IN & LOCKED**
6. **Seat Belts - ON**

Example of a Checklist:



Cessna CheckMate 172 N

INITIAL
Weather & Den.Alt.
Weight & Balance
Performance Req.
Flight Plan – File
Papers – A.R.O.W.
Fuel – Both
Control Lock
Master – On
Flaps – Extend
Pitot Heat – Test
Lights – Int. / Ext.
Fuel Gauges – True
Master – Off

EXTERIOR SUMMARY
Fuel Quantity
Fuel Quality
Caps/Drains/Vents
Engine / Oil / Belt
Prop / Air Intake
Exhaust System
Stall Indicator – Test
Surfaces & Controls
Pitot & Static Ports
Gear / Tires / Brakes
Antennas
Ties/Chocks/Towbar
Baggage Door
Final Walk Around

INTERIOR
Passenger Brief
Hobbs / Tach Time
Circuit Breakers
Alternate Static
Brakes – Pedal Test

START
Seat Track/Back - Lock
Avionics – Off
Autopilot – Off
Carb Heat – Off
Mixture – Full Rich
Throttle – Slight
Prime
Brakes – Set
Prop – Clear
Master – On
Beacon – On
Mags – Start
Oil Pressure
Lights – As Req.
Mixture – As Req.

PRE-TAXI / TAXI
Seat Belts / Harness
Flaps – Up
Heat / Vent / Defrost
Avionics – On / Set
ATIS / AWOS
Altimeter – Set
XPDR – Alt + Sqwk
ADS-B – On
Radio – Test
Taxi Light – As Req.
Brakes – Test
Attitude Indic. – Test
Turn Coord. – Test
H.I./Compass–Test

RUN-UP
Brakes – Set
Fuel – Both
Trim – Takeoff
Flight Controls
Instruments
Mixture – Best Power
Primer – In & Lock

1700 RPM
Mags (R a L) – Test
Carb Heat – Test
Vacuum
Amps / Volts
Oil Pressure
Oil Temperature
Idle – Check Closed
Throttle Friction

PRE-TAKEOFF
Flaps – 0°-10°
Mixture – Best Power
Carb Heat – Off (Or As Req.)
XPDR – Alt + Sqwk
Doors / Windows
Landing Light – On
Strobes – As Req.
Time – Note
Brakes – Release

Abort Plan - Ready!

TAKEOFF
Full Throttle
2280 RPM (Max)
Oil Pressure
Rotate * 55 (63)
Vy – 73 (84)
Flaps – Up

CLIMB
70-80 (81-92)
Power
Mixture
Instruments
Taxi / Land Light – Off
Flight Plan – Open

CRUISE
Power
Mixture
Instruments
H.I. To Compass

DESCENT
Mixture – Richen
Fuel – Both
Carb Heat – As Req.
ATIS / AWOS
Altimeter – Set
Instruments
H.I. To Compass

PRE-LANDING
Landing Light – On
Autopilot – Off
Seat Belt / Harness
Mixture – Best Power
Carb Heat – On
Fuel – Both
Flaps – As Req.

LANDING
Flaps –40° (Or As Req.)
Speed * 60 (69)
G.U.M.P.F.S.

GO AROUND
Power – Full
Carb Heat – Off
Positive Rate Climb
Flaps – Retract Slowly

AFTER LANDING
Flaps – Up
Carb Heat – Off
Strobes – Off
Landing Light – Off
Taxi Light – As Req.
Pitot Heat – Off
Mixture – As Req.
Trim – Takeoff
XPDR – Alt + Sqwk

SECURING
ELT – Verify Silent
Avionics – Off
Mixture – Full Lean
Mags – Off
Master – Off
Fuel – Left or Right
Lights – Off
Hobbs / Tach Time
Control Lock
Chocks
Tie Downs
Pitot Cover
Baggage Door
Cabin Doors

Close Flight Plan

* *Adjust Speed As Needed For Conditions*

X Wind • Max Demo'd – 15 (17) Vso • Stall w/Flaps (77-79) 41 (47) Best Glide (2000 lbs) – 65 (75) Vno • Max Struct. Cruise – 127 (146)
Vr • Rotation Speed – 55 (63) Vs1 • Stall w/Flaps (1960) 33 (38) Best Glide (Full Gross) – 65 (75) Vne • Never Exceed – 158 (182)
Vx • Best Angle Climb – 59 (68) Vr • Stall w/o flaps (77-79) 47 (54) Va • Max Manuf Crs (2000 lbs) – 90 (104) Vfe • 10° Flaps (79-90) – 110 (127)
Vy • Best Rate Climb – 73 (84) Vs • Stall w/o flaps (1960) 44 (51) Va • Max Manuf (Full Gross) – 97 (112) Vfe • Full Flaps – 85 (98)

	KNOTS (MPH)	FLAPS °	– NOTES –
DEPARTURE			
Rotation *	55 (63)	0	77-79: Short w/Obstacle: 0° Flaps – 59 (68); 1960: Short Field: 10° Flaps – 53 (61); 77-80: Soft Field: 10° Flaps – 55 (63)
Best Angle Climb	59 (68)	0	
Best Rate Climb	73 (84)	0	
CRUISE (Tail 3,000')			
Economy	99 (114)	0	2300 RPM – 6.3 GPH – 55%
Normal	107 (123)	0	2450 RPM – 7.3 GPH – 65%
Maximum	114 (131)	0	2575 RPM – 8.4 GPH – 75%
ARRIVAL			
Approach	70 (81)	10-20	1700 RPM (Initially)
Short Final *	60 (69)	30-40	Idle-1200 RPM

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II. Preflight Preparation

A. Dispatch Procedures

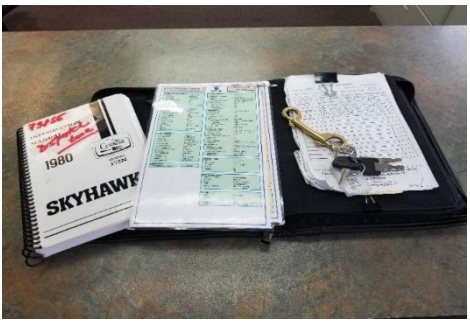
All training flights are dispatched by our Chief Pilot or Assistant Chief Pilot.

When you arrive at Texas Southern University you will be asked to sign a go-no-go form and you should check the following documents. These documents include:

- Texas Southern University's checklist for that model of airplane
- Copy of the airplane manual (POH/AFM)
- Copy of POH/AFM Supplements
- Flight schedule pro
- Maintenance Inspection Summary
- Discrepancy Sheet
- VOR Check Log

Note: Students are prohibited to fly when ambient temperature is greater than 100-degree Fahrenheit

Some aircraft are not fueled to capacity due to the potential weight and balance issues. Tell the flight instructor if you need more fuel than is typically kept in these airplanes.



B. Preflight Briefing

Your instructor will conduct a preflight briefing to ensure safe and efficient flight training operations. This briefing is usually performed in one of our briefing rooms, the classroom, or at the instructor's desk and will include the following information:

- The objectives of the lesson
- The tasks to be completed in the lesson
- A briefing on each of the tasks that will be introduced during the lesson (if needed)
- A review of the previous flight (if needed)
- A risk assessment of the flight considering the Pilots, Airplane, Environment, and External Pressures.

C. Fitness for Flight

Part of the risk assessment for each flight includes assessing your own fitness for flight as well as the instructors. You should apply the FAA's IMSAFE checklist before every flight. Your instructor will provide more information on each item.

I	-	Illness
M	-	Medication
S	-	Stress
A	-	Alcohol
F	-	Fatigue
E	-	Eating/Emotions

D. Flight schedule pro

Flight schedule pro is used to track the hours of operation of the airplane, when it was flown, and by whom. Texas Southern University uses the airplane's "Hobbs Time" for billing purposes. You should verify the correctness of the last entry during the preflight portion to ensure accurate billing.

Hobbs Time: The Hobbs meter starts counting time after the engine has started and stops when the engine is shut down. It is typically used for billing as it provides a measurement of how long the airplane was operated.

E. Maintenance Inspections

Once it has been determined that both you and the instructor are fit for flight, you will have to verify whether the airplane is airworthy. This means you will have to ensure all required inspections have been completed, there are no unresolved maintenance issues, and all required documents are on board.

One of the documents found in the Dispatch Book is a summary of required inspections. It contains a table with the due date or "tach time" for each inspection. These inspections include:

- Annual Inspection
- 100-Hour Inspection
- Transponder Inspection
- ELT Battery Expiration Date
- Various Airworthiness Directives (AD)

AIRCRAFT MAINTENANCE STATUS

AIRCRAFT N: 18352

			NEXT DUE				
50 HOUR	~~3110.7~~	~~3214.7~~	~~3260.7~~	3309.7 ← Denotes Due at Tach Time			
100 HOUR	~~3160.7~~	~~3260.7~~	3359.7				
ANNUAL	~~9/19~~	8/20	← Denotes Due on a certain month				
IFR CHECK	~~5/19~~	5/21					
TRANSPONDER	~~5/19~~	5/21					
E.L.T.	12/2021	← ELT Battery Expiration Date					
A.D. 93-05-06	3983.3						
A.D. 2011-10-09	~~3160.7~~	~~3259.7~~	~~3267.9~~	3359.7	← Recurring ADs		
A.D. 85-10-02	~~3160.7~~	~~3259.7~~	~~3267.9~~	3359.7			
A.D.							
A.D.							

DUE TIMES ARE TACH TIMES

Form 240 (01-05-01)

Transponder: An avionics device that transmits

the airplane's altitude, as well as a code inputted by the pilot, to a radar facility

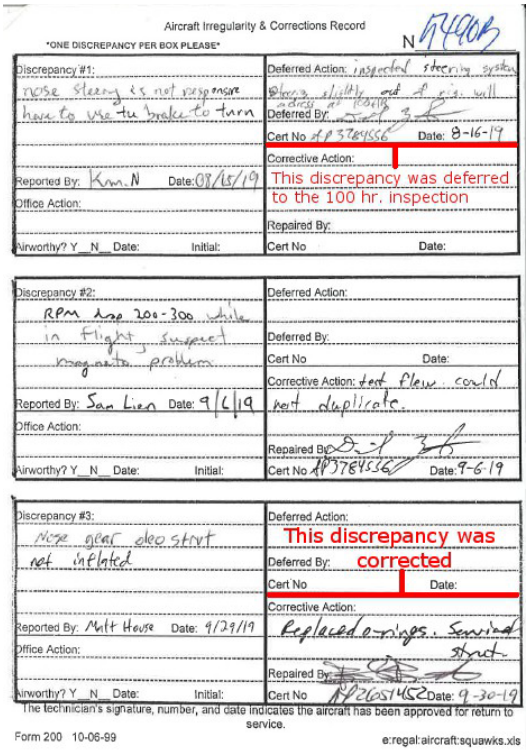
Tach Time: The airplane's tachometer keeps track of the hours of operation of the engine, like how a car's odometer tracks the miles driven. This information is used to determine when certain inspections are due and is based on the number of engine rotations.

Airworthiness Directives: Repairs, modifications, or inspections required for a specific airplane model to maintain airworthiness

Emergency Locator Transmitter (ELT): A device that is activated by impact, or by the pilot, to broadcast the airplane's position in case of an accident.

F. Discrepancy Sheet

Another useful document regarding airworthiness is the “Squawk Sheet”. This document is used by pilots to communicate maintenance issues to other pilots and to TSU’s maintenance and safety coordinator. You should always verify this document to ensure there are no known issues that may affect the safety of flight.



Aircraft Irregularity & Corrections Record

ONE DISCREPANCY PER BOX PLEASE

N 6490B

Discrepancy #1: nose steering is not responsive have to use tu brake to turn	Deferred Action: inspected steering system Deferred By: Cert No AP3784556 Date: 8-16-19
Reported By: Kim. N Date: 08/15/19	Corrective Action: This discrepancy was deferred to the 100 hr. inspection
Office Action:	Repaired By:
Airworthy? Y__N__ Date: Initial:	Cert No Date:
Discrepancy #2: RPM drop 200-300 while in flight, suspect magneto problem	Deferred Action: Deferred By: Cert No Date:
Reported By: San Lien Date: 9/6/19	Corrective Action: test flew, could not duplicate.
Office Action:	Repaired By:
Airworthy? Y__N__ Date: Initial:	Cert No AP3784556 Date: 9-6-19
Discrepancy #3: Nose gear oleo strut not inflated	Deferred Action: This discrepancy was Deferred By: corrected Cert No Date:
Reported By: Matt House Date: 9/29/19	Corrective Action: Replaced o-rings. Serviced strut.
Office Action:	Repaired By:
Airworthy? Y__N__ Date: Initial:	Cert No AP2057452 Date: 9-30-19

The technician's signature, number, and date indicates the aircraft has been approved for return to service.

Form 200 10-06-99 e:regal:aircraft:squawks.xls

When a maintenance issue is found, it is recorded under the “Discrepancy” column. Please make sure to write clearly and describe the issue in as much detail as possible. Texas Southern University staff will then determine the effect on airworthiness and communicate the issue to the maintenance department. A maintenance mechanic will then either correct or

defer the issue, which is recorded under the “Deferred Action” or “Corrective Action” lines.

G. Aircraft Documents

The FAA requires the following documents to be onboard of the airplane:

- Airworthiness Certificate – Which must be visible
- Registration
- Radio Station License
  - for international flights, FCC requirement
- Operating Limitation Information
  - Placards
  - Instrument Markings
    - Airplane Flight Manual (AFM) – for airplanes built after March 1, 1979
- Weight and Balance Information
- Supplements for the AFM and cockpit reference guides for certain equipment

Specific document requirements and their location varies from airplane to airplane. Your instructor will brief you on their location. Typically, they will be found within a plastic bag inside a “glove compartment” or seat pocket.

H. Weather Information

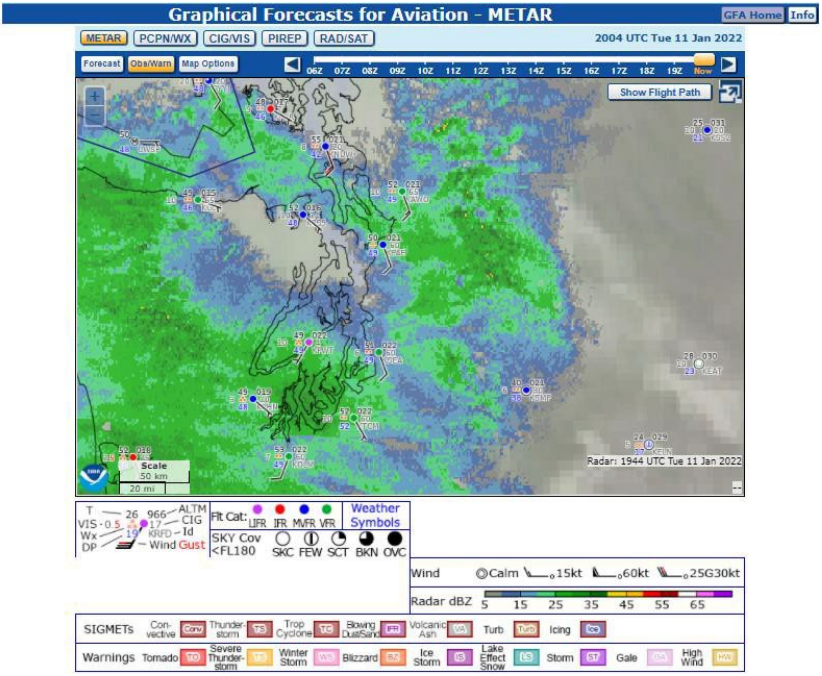
The next step in your decision making will be gathering weather information to determine if the weather conditions are safe to fly in. Your instructor will show you how to get this weather information. This information may come from a variety of providers including:

- Flight Service Station (https://www.1800wxbrief.com/)
- NOAA's Aviation Weather Center

  (https://aviationweather.gov/)

- Various Electronic Flight Bag (EFB) applications for mobile devices

Early in your training, the flight instructor is responsible for getting this weather information and determining if the weather conditions are safe. As you progress in the course, you learn more about weather forecasting and decision making, and you will be responsible for this information.


Graphical Forecasts for Aviation - METAR
GFA Home
Info
METAR
PCPN/WX
CIG/VIS
PIREP
RAD/SAT
2004 UTC Tue 11 Jan 2022
Forecast
Obs/Warn
Map Options
06Z 07Z 08Z 09Z 10Z 11Z 12Z 13Z 14Z 15Z 16Z 17Z 18Z 19Z Now
Show Flight Path
Scale
50 km
20 mi
Radar: 1944 UTC Tue 11 Jan 2022
T
VIS
Wx
DP
ALTM
CIG
Id
Wind
Gust
Flt Cat:
LIFR
IFR
MVFR
VFR
Weather Symbols
SKY Cov
<FL180
SKC
FEW
SCT
BKN
OVC
Wind
Calm
15kt
60kt
25G30kt
Radar dBZ
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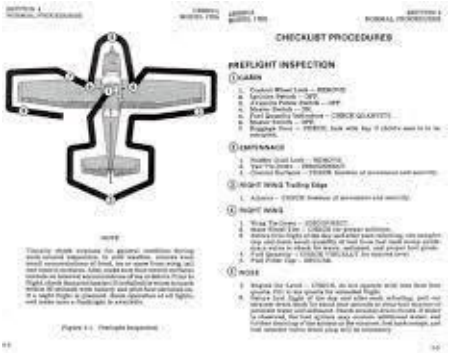
35
45
55
65
SIGMETs
Con-vective
Thunder-storm
Trop Cyclone
Blowing Dust/Sand
Volcanic Ash
Turb
Icing
Warnings
Tornado
Severe Thunder-storm
Winter Storm
Blizzard
Ice Storm
Lake Effect Snow
Storm
Gale
High Wind

I. Pre-Flight Inspection

You and your instructor will perform a preflight inspection of the airplane before every flight. This preflight inspection is different for each make and model airplane. Details for your specific airplane will be provided by your instructor and may be found in the airplane's flight manual.

In the beginning, the flight instructor will perform the preflight inspection with you. As you learn more about the airplane, and gain the instructor's trust, you will be given more responsibility regarding this inspection.

Security reminder: If you do not have a student pilot certificate yet, your instructor must be with you while you perform the preflight inspection.


CHECKLIST PROCEDURES

PREFLIGHT INSPECTION

Your preflight inspection starts with a "Fuel and Oil" check where you visually inspect the amount of fuel in the airplane and the engine oil level. The next phase is to inspect the cockpit for the required documents and to check the operation of all lights and various electrically powered instruments. Next you will perform a walk-around inspection of the airplane, checking the structure, flight controls, and other systems for proper operation and defects.

Security reminder: Lock all doors and keep the airplane chains secured if you must leave the airplane unattended.

J. Flight Deck Management

The flight deck is your workspace while you are flying an airplane. Keeping the space organized will allow you to quickly find the items that you need when you need them. Here are a few recommendations to keep your flight deck organized:

Kneeboard

- Use a kneeboard with pockets or sleeves.
- Keep paperwork you will need to use in flight on your kneeboard including checklists, navigation logs, plotters, flight computers, and mobile devices.
- Get rid of old paperwork to declutter your kneeboard.
- Bring 2-3 pens/pencils in case you lose one in flight.
- Tie your pen/pencil to your kneeboard

Flight Bag

- Keep additional items you may have to use in flight or during your flight lesson such as your logbook, chart supplements, spare mobile devices, aviation radios, survival or emergency use items, snacks, and beverages in your flight bag.
- Remove any items that you will not use in flight such as books, notebooks, laptops, etc.
- Place the flight bag behind and to your right to be able to reach it easily.

Pockets

- Put other necessary items in available pockets such as charts, sunglasses, and view limiting device.

- Make sure to verify the pockets before exiting the airplane so you do not leave any items.

Other

- **Do not** put any items under your seat, they can roll forward and interfere with the pedals

- **Secure** all items so they do not move around in turbulence

- **Do not** put large items on the glareshield, the windshield is easily scratched

III. Normal Procedures at Texas Southern University

A. Engine Starting

The ramp area can be a busy place occupied by multiple people and with several airplanes operating at once. Please start the airplane within its designated parking spot following manufacturer's instructions and the Texas Southern University flight instructor briefing. Additionally, take the following precautions:

- If the airplane is parked next to a building or hangar, pull the airplane away from the building and angle the airplane so that the propeller wash does not impact the building. The propeller wash can throw dirt and debris unto the building.

- Ensure there are no people near the propeller or directly behind the airplane before starting the engine.

- Turn the "Beacon" or "Anti-Collision" light "ON" before engine start to provide others with a visual warning.

- Call "Clear!" before starting the engine, this will warn people near the airplane who you may have not seen.

- Move the throttle control to a position that provides less than 1,000 RPM as soon as possible to reduce noise and avoid creating excessive propeller wash.

B. Taxiing

Use minimum power necessary to get the airplane moving when leaving your parking spot. High power settings cause excessive noise and can throw debris at other people and airplanes around you.

Make sure to look both ways before leaving your tie down spot. Additionally, perform a brake check as you pull out to ensure the brakes work properly before you gain too much speed.

Taxi speed within 10’ of another object or obstacle, slow walk

Safety precautions behind other aircraft of which all may be seen operating at KEFD

- 75’ behind SE aircraft
- 200’ behind ME or light jet aircraft
- 500’ behind heavy jet aircraft or helicopters

Non-Movement Area: An area of the airport that is not controlled by ATC. Ground Control has no authority or responsibility in this area. Includes areas for loading, unloading, parking, and moving aircraft

Movement Area: An area of the airport that is under the jurisdiction of ATC. Includes taxiways and runways.

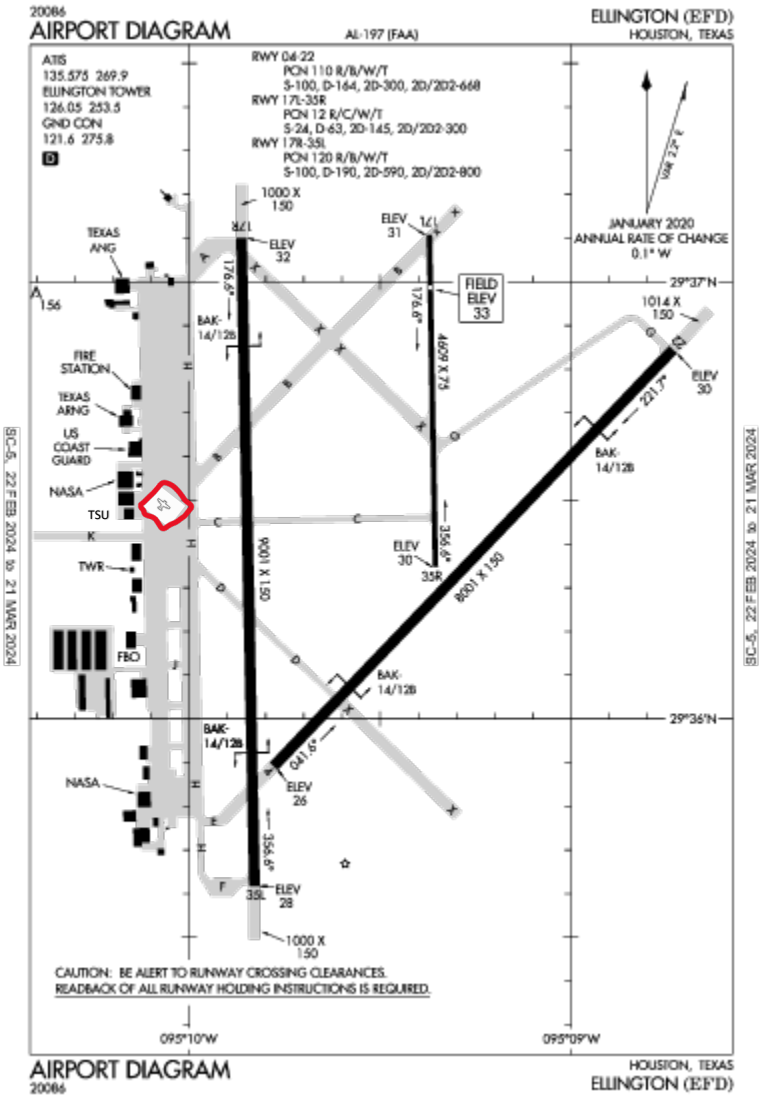
C. Before Takeoff Checks

Please take the following into consideration when performing the before takeoff checks:

- There is limited space in the runup areas, and many airplanes may be trying to use them during peak hours; position yourself in a way that allows room for other airplanes to enter the runup area.
- The higher power settings used in the runup cause a strong propwash that can scatter debris behind the airplane and buffet other airplanes and windsocks. Make sure to position your airplane in a way that avoids “blasting” other airplanes, people, vehicles, and wind socks.
- Avoid performing runups on the main taxiways since you may block other aircraft.

See the diagrams on the following page for ideas on how to position the airplane. These are suggestions, you may have to position the airplane differently based on the positioning of other aircraft and the amount of traffic trying to use the runway.

TSU


20086
AIRPORT DIAGRAM
AL-197 (FAA)
ELLINGTON (EFD)
HOUSTON, TEXAS
ATIS
135.575 269.9
ELLINGTON TOWER
126.05 253.5
GND CON
121.6 275.8
D
RWY 04-22
PCN 110 R/B/W/T
S-100, D-164, 2D-300, 2D/2D2-668
RWY 17L-35R
PCN 12 R/C/W/T
S-24, D-63, 2D-145, 2D/2D2-300
RWY 17R-35L
PCN 120 R/B/W/T
S-100, D-190, 2D-590, 2D/2D2-800
JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W
1000 X 150
ELEV 32
ELEV 31
FIELD ELEV 33
TEXAS ANG
FIRE STATION
TEXAS ANG
US COAST GUARD
NASA
TSU
TWR
FBO
NASA
BAK-14/12B
4609 X 75
9001 X 150
8001 X 150
1014 X 150
ELEV 30
29°37'N
29°36'N
095°10'W
095°09'W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
SC-5, 22 FEB 2024 to 21 MAR 2024
AIRPORT DIAGRAM
20086
HOUSTON, TEXAS
ELLINGTON (EFD)

D. Departing the Traffic Pattern (KEFD)

The Air Traffic Control Tower will provide instructions on how to depart the traffic pattern. The diagram below depicts common instructions at KEFD. Note that these procedures are specifically for KEFD, follow the standard pattern exit procedures found in the Aeronautical Information Manual (AIM) at other airports.

E. Arriving at Ellington Airport (KEFD)

Please adhere to the following procedures when arriving at Ellington Airport (KEFD):

- Obtain ATIS information well before reaching 8nm from the airport
- Request entry into KEFD's class delta airspace at least 8nm

  away from the airport.

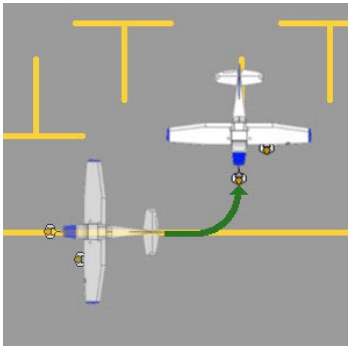
- If communications cannot be established due to a high traffic load, circle outside of the airspace until ATC is able to accept your request.
- Follow the tower's pattern entry instructions

F. Reporting Points Around KEFD

T41 (1), Cedar Point (2), Baytown (3), Clear Lake (4)

H. Parking

Park your airplane at its designated tie-down spot.



H.A Airplane Handling

Take the following precautions when pushing or pulling the airplane:

- **Always** use the towbar when pushing or pulling the airplane, applying excessive force on other parts of the airplane may cause damage

- **Do not** deflect the towbar more than 30^{o} from center as this can put undue stress on the nose gear

- **Do not** leave the towbar attached when not in use

- Take the keys out of the ignition and place them on the glareshield to ensure the magnetos are in the OFF position

- Ensure the towbar does not contact the propeller

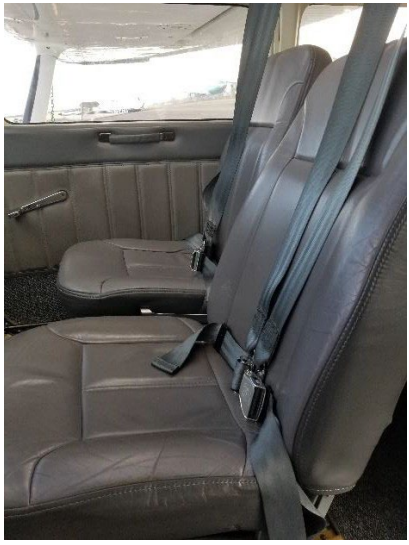
- If it is necessary to turn the propeller, turn it slowly and in the opposite direction of normal rotation with your fingertips to prevent kickback

- **Do not** push/pull on the following parts
    - Tail surfaces
    - Control surfaces
    - Wings
    - Propeller or propeller spinner

I. Securing the Airplane

Ensure the following steps are completed before leaving the airplane:

- Insert the control wheel lock
- Secure your personal property
- Pick up any trash left in the airplane
- Buckle the lap belt and ensure it does not interfere with the door
- Use shoulder harness tidy clips if supplied
- Secure the airplane with the provided chains, remove as much slack as possible
- Always secure the airplane with the straps we have helicopters taking off in our vicinity
- Lock all doors



IV. Maneuvers

1. At all times while occupying the pilot's seat, you will maintain surveillance of other aircraft – ON THE GROUND AND IN THE AIR! Use proper scanning techniques.

2. In flight, the wing tip should be raised in the direction of the turn in a high-wing airplane or lowered in the direction of the turn in a low-wing airplane before each turn to scan for other traffic.

3. Prior to any flight maneuver, at least one 90º clearing turn must be performed. The pilot will announce the clearing turn is being accomplished. In order to avoid any overtaking aircraft, a clearing turn to the left is preferred.

4. In the traffic pattern at any non-towered airport, the PIC must make all position reports and remain vigilant for aircraft operating in the vicinity that do not have a radio and/or not making radio calls.

5. Use the taxi light while taxiing. The landing light will be utilized during all flight operations in the practice areas. All exterior lights will be turned on when crossing any runway.

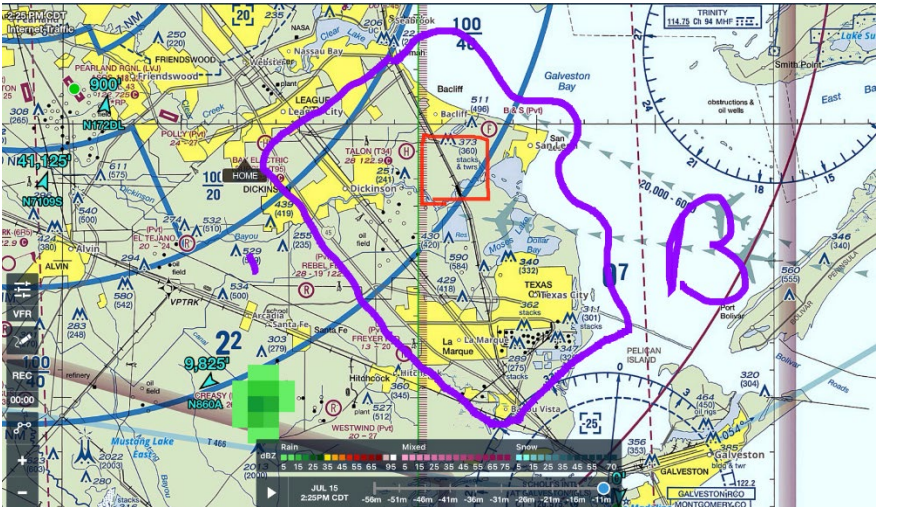
6. Prior to crossing any runway, the PIC will clear the area in both directions. When two pilots occupy an aircraft at a towered-airport, they will verbally confirm with each other that a clearance was given to cross any runway. If there is any doubt by either pilot, the PIC will verify with the controller a clearance to proceed was approved prior to entering the intersection.

7. Prior to entering the active runway for takeoff, the PIC shall confirm the runway number (i.e. Magnetic Compass, runway markings) and visually scan the final approach area to ensure there are no other aircraft in the final approach corridor.

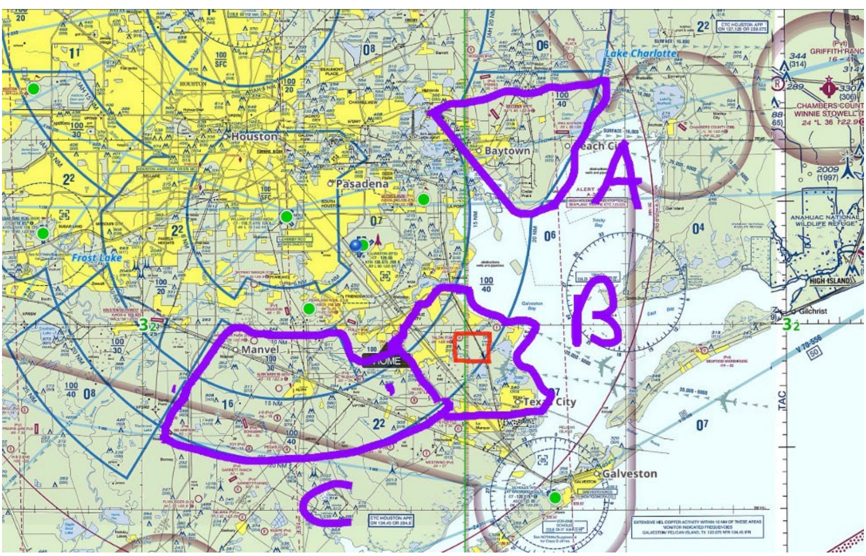
8. During traffic pattern operations, pilots shall visually scan the final approach area to ensure there are no conflicts with other aircraft before turning base to final.

9. When entering and departing the practice areas for the purpose of conducting maneuver training, flight instructors and students will self-announce and monitor VHF frequency 123.50MHz

A. Practice Areas




2:35 PM CDT
Internet Traffic
Friendswood
League City
Dickinson
Manvel
ALVIN AIRPARK
10 NM
15 NM
20 NM
HOME
Thurmond Lake
BB AIRPARK
SONGBIRD
PEGASUS
GARRETT RANCH
GARRETT FARMS
FLYIN TIGER
SALAIKA
Bonney
San Leon
Texas City
La Marque
Hitchcock
FREYER FLD
WESTWIND
SCHOLES INTL AT GALVESTON (GLS)
Carancahua Lake
CTC HOUSTON APP ON 134.45 OR 284.0
Rain
Mixed
Snow
JUL 15
2:35PM CDT
C


Houston
Pasadena
Baytown
Lake Charlotte
Frost Lake
Manvel
HOME
Texas City
Galveston
HIGH ISLAND
Gilchrist
A
B
C

B. Precautions

Please adhere to the following:

Do:

- Only perform maneuvers approved by your instructor when flying solo
- Perform clearing turns before every maneuver
- Use Traffic Information Systems (TIS) when installed
- Select altitudes appropriate to the maneuver being performed
- Select an area in which to perform maneuvers that has open fields suitable for emergency landing
- Use the air-to-air frequency to communicate your intentions
- Use exterior visual references when performing maneuvers instead of your flight instruments

Do not:

- **Do not** perform maneuvers on your own unless approved by your instructor
- **Do not** perform ground reference maneuvers with an entry altitude less than 800' AGL
- **Do not** perform stalls or slow flight below 3,000' AGL
- **Do not** perform ground reference maneuvers above populated areas
- **Do not** loiter over a location for an extended period of time while performing ground reference maneuvers
- **Do not** assume everyone doing maneuvers is communicating on the air-to-air frequency
- **Do not** perform low altitude maneuvers over noise sensitive areas such as schools, golf courses, and other communities

V. Emergency Procedures

A. Emergency Equipment

1. Emergency Kit

Each Texas Southern University aircraft is equipped with emergency kit.

2. Fire Extinguishers

Some airplanes at Texas Southern University are equipped with fire extinguishers. These are typically mounted between the two front seats. You should inspect the following before flight:

- General condition
- Safety pin is in place and secured with a plastic strip
- The pressure gauge is in the green
- It is properly fastened
- Date of last inspection

B. Emergency Procedures

The following procedures are time critical and should be **memorized.** If time allows, you should use a checklist when resolving these emergencies**:**

- Engine failure or partial power loss
- Emergency approach and landing
- Fires including:
    - Engine fire in cruise
    - Engine fire while starting
    - Electrical fire
    - Wing fire
    - Cabin fire

You should be **familiar** with the following emergency procedures and malfunctions. You should consult a checklist when resolving these issues:

- Electrical failures including
    - Low voltage
    - Excessive rate of charge (high voltage)
    - Popped circuit breaker
- Loss of communications including:
    - Entering Class D airspace with transmitter and receiver failure
- Instrument system failures
- Flight into instrument meteorological conditions (IMC)
- Flight into icing conditions
- Lost procedures
- Diversion

REMEMBER: You can contact Texas Southern University while in flight by using the Regal UNICOM frequency on **122.95 MHz** if assistance is needed.

EMERGENCY

ACTION PLAN

[Ellington Field (KEFD) QUICK REFERENCE GUIDE

FOR ANY EMERGENCY:
CALL/TEXT 911

WHAT TO DO…

EVACUATION PROCEDURES--**FIRES**
Activate the pull station/fire alarm.
Evacuate the building, away from entrances and exits.
DO NOT USE ELEVATORS
Call for help—dial 911.
Warn others.
Do not re-enter the building until authorized by public safety officials.

SHELTER IN PLACE—**TORNADO WARNING**
If the All-Hazards Outdoor Warning Sirens are activated, or a tornado warning is issued by the National Weather Service, immediately seek shelter inside the nearest available facility.
Proceed to the lowest level. If a basement is not available, seek an interior hallway or interior room on lowest level, away from windows and doorways.
All clear will be announced over the local TV and radio stations or upon expiration of the initial National Weather Service warning

SHELTER IN PLACE—**HAZARDOUS MATERIALS (HAZMAT) RELEASE**
If advised to shelter for a HAZMAT incident, immediately seek shelter in nearest facility.
Close and lock all windows exterior doors, and any opening to the outside.
If possible, move to an interior room above ground floor with fewest windows and vents.
Do not leave the building until authorized by public safety officials.

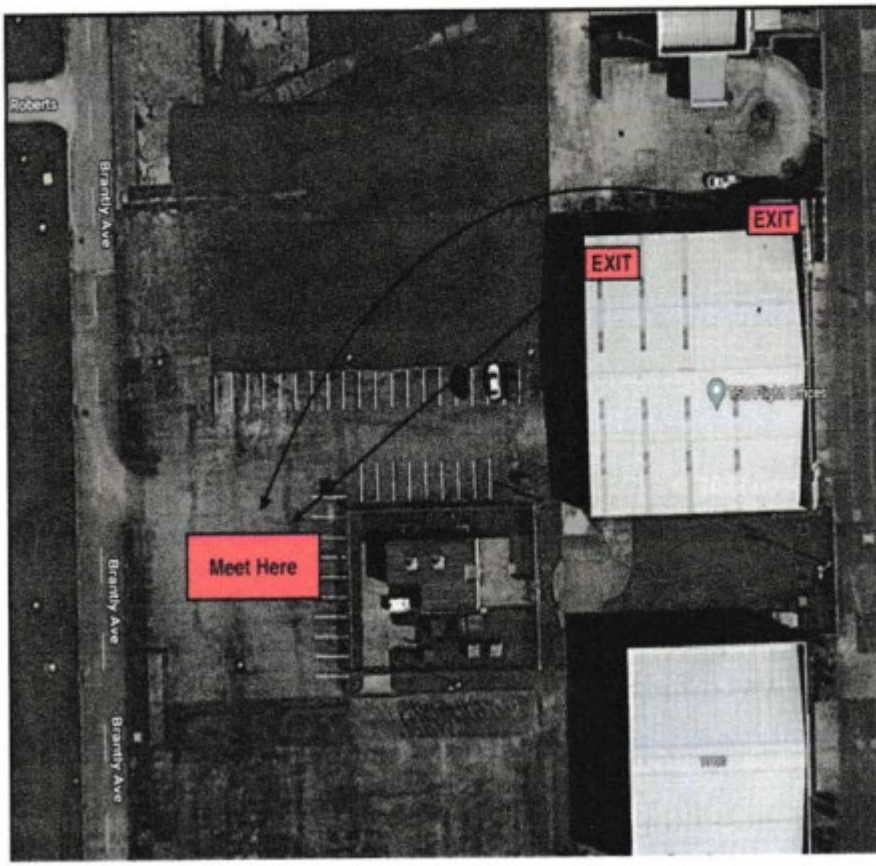
SHELTER IN PLACE—**ACTIVE THREAT**
Decide whether to Run, Hide, or Fight.
If you decide to hide (shelter in place), seek a safe area in nearest facility; lock or block door.
Do not leave your area until authorized by public safety officials.

In the case an aircraft's location is unknown, the following protocols will be followed:
The chief pilot is to be notified.
The chief pilot will then attempt to located the aircraft via any means that appear sensible and appropriate under the circumstances (telephone tower at destination airport, tracking aircraft's ADS-B signature, etc.)
Should the above two steps not verify the location of the aircraft, the following steps are to be followed:
The chief pilot is to notify the director of aviation and the office of risk management. The chief pilot will brief both these entities on the specifics of the aircraft and the circumstances at hand.
The chief pilot will print out a hard copy of all available flight tracking data (ADS-B, flight plans filed, etc.)
The chief pilot will contact local FSDO and report the event.
The director of aviation, working in tandem with the office of risk management, will determine whether or not to contact police, NTSB, or other appropriate entities.
The office of risk management will provide directives to the chief pilot on next steps as appropriate.

Emergency Notification Resources:
All-Hazards Outdoor Warning Sirens – shelter in place
Building Fire Alarms – Evacuate the building
Local Media – radio, TV, newspapers, and internet to help spread the word
See: http://hr.tsu.edu/campus-safety-and-emergency-preparedness/

Non-Emergency Phone Numbers
Dr. Terence H. Fontaine: 832-524-8284
Chief Sebastian: 904-616-8383
Dr. Peter Lin: 630-408-8456

EMERGENCY EVACUATION PLAN



Ellington Airport
Contract Air Traffic Control & ATCALS

10 Mar 21

Departures

- VFR acft will NORMALL Y climb to 600' and proceed to the east.
- IFR acft will NORMALLY fly heading 090^0 while climbing to 2000'. (Small GA acft could affect the pattern if they are slow to climb to their assigned altitude and/or they delay the turn to 090^0.)

Arrivals

- Small GA acft requesting pattern work are routinely sequenced to the short rwy, RY17L/35R, at 600'. They usually arrive from the NE-SE and will enter the Class D at or below 600'.

Misc acft

- Pipeline (helos, Cessnas) will transition the Class D (200'-400')
- News, police and medical helos crisscross the airspace (up/down 145) several times a day (600'-700')
- Coast Guard, US Army helos usually travel via Kemah arr/dept (east). However, there is also a League City arr/dept (south) and a Monument arr/dept (north). Acft will also fly 'roundy-rounds' on RY17L/35R for an hour or more. (600'-1000') day & night!
- Military IUAS (MQ-9 Reaper) is fully integrated with manned ops. ATC ensures the spacing and separation.

What you may not know...

- Ellington Tower is owned by the city of Houston, and ATC is contracted by the Air National Guard to support the IUAS and Alert mission...fortunately, the GA community is able to greatly benefit!
- Staffing is (3) controllers Mon-Fri 0800-1600, (2) from 1600-2100 each day and (1) from 0000-0700.
- Quite often there's one controller working as Shift Supervisor, Ground Control, Local Control, and Flight Data...observing/recording/disseminating hourly weather observations, constructing/recording/ broadcasting the ATIS message, verbal/automated coordination between IAH/HOU, maintaining continual surveillance of the movement area/nonmovement area/airspace (surface to 2000'), recording traffic count, maintaining daily events log, verifying

NOTAMs/airfield advisories, activating the "Crash Phone", issuing IFR clearances & VFR flight-following, and coordinating with a host of other support services. Oh yeah, they could also be working a pattern full of airplanes and a handful of planes on the ground!

Help me help you help me!

- Our highest altitude is 1600' due to IFR acft transitioning overhead. Remain at 600' while in the Delta.
- Suggested headings… we rarely given them, but when we do seriously consider acceptance!
- Fly a standard pattern. (If you need to extend upwind/downwind etc., just ask!)
- Cross dept-end before turning out. Don't fly a close pattern/tight downwind over the short runway.
- CFI talk on the radio if the student cannot...before it becomes an issue!
- Inbound from T41/LVJ...avoid adjacent final approach courses (RY35 & RY22)
- Listen before you key up and talk...a conversation may be in progress!
- Don't stop on the taxiway after exiting the runway (chat or debrief somewhere else!)
- Avoid final approach course (unless you're inbound!) especially flying against the flow of traffic!
- Bottom line... If, something concerns you then it concerns me. Elevate the issue to your supervisor who will call me with the specifics and at least ask the question! Odds are that we can all learn from it (or at least increase our awareness!)

Emergency Procedure for Inability to Fly Back

1. Assess the Situation

Weather Assessment:

Check Current Weather Conditions: Verify the latest weather reports and forecasts using aviationweather.gov or by contacting 1-800-WX-BRIEF

Evaluate Impact: Determine if current or forecasted weather conditions make it unsafe to continue the flight.

Aircraft Assessment

Identify Malfunction: Identify the specific part or instrument that is malfunctioning.

Evaluate Severity: Determine the impact of the malfunction on the safety of flight operations.

2. Secure the Aircraft

Safe Landing:

Ensure a safe landing at the nearest suitable airport or landing area.

Shutdown Procedures:

Perform standard shutdown procedures to secure the aircraft.

Safety Precautions:

Secure the aircraft to prevent further issues and ensure personal safety.

3. Contact Important Personnel

Inform Key Contacts:

Contact Chief Sebastian, Dr. Fontaine, or Dr. Lin to inform them of the situation.

Arrange Accommodation if Necessary:

Contact Ms. Wilburn at 713.313.6837 or 832.454.6013 to find a local hotel if an overnight stay is required

Instrument Meteorological Conditions (IMC): Weather conditions in which it is not possible to control the airplane solely by visual reference and the pilot must rely on his/her flight instruments.

Icing Conditions: Weather conditions in which ice deposits unto the wing of the airplane, adversely affecting the flight characteristics of the airplane.

VI. Flying Solo

A. Training and Endorsement Requirements

Before you can perform a solo flight, you must meet the following requirements:

- Hold a "Student Pilot" certificate (signed)
- Hold a third class medical or better
- Complete the required ground and flight training
    - This is usually completed near the end of the first stage
- Pass a "Pre-Solo Knowledge Test" provided by Texas Southern University
- Receive an endorsement from an instructor authorizing you to perform solo flights in a specific make and model airplane
    - This endorsement expires after 90 days and must be renewed periodically, until you earn your Private Pilot certificate

You will be provided with a "Pre-Solo Knowledge Test" by your flight

instructor at that appropriate time in your training.

You will also have to complete certain portions of the "POH Exam" to ensure an appropriate level of knowledge about the airplane used for your solo flights.

Endorsement: An entry in a pilot's logbook signed by an instructor granting certain privileges or limitations.

B. FAA Limitations on Solo Flight

FAA limitations on student pilots includes the following:

- No flying with passengers
- No flying passengers or cargo for hire
- No flying for hire
- No flying in furtherance of a business
- No flying internationally
- No flying when flight or surface visibility is less than 3 statute miles
- No flying without visual reference to the ground

Additionally, all student pilots must adhere to any limitations imposed by the flight instructor providing your solo endorsement.

For the most current information, consult 14 CFR 61.81.

Visibility: The distance at which you may clearly see an object. May be limited by mist, fog, smoke, haze, or other particulate matter.

Ceiling: A layer of closely packed clouds that may not be possible to cross without entering one. Broken or overcast layers are considered ceilings.

C. Texas Southern University Solo Limitations Policy

Texas Southern University instructors will only authorize solo flights if the following minimums are met. Our instructors are authorized to

necessary for the safety of flight. Instructors may also refuse to authorize a flight if other risk factors not listed here are involved, if they believe it will affect the safety of flight.

- Weather (current and forecasted)
    - No lower than 2,500' ceiling for a local flight
    - No lower than a 3,500' ceiling for a cross-country
    - No lower than 10 statute miles of visibility (or P6SM)
    - Wind speed at the airport surface of no more than 12 knots
    - Crosswind component at airports of intended landing of no more than 7 knots
    - No tailwind component for takeoff or landing

- Airports

Designated by only the Chief Pilot

- Flight Recency
    - May not fly solo if the last instructional flight was over 14 days ago
    - May not perform more than three consecutive solo flights

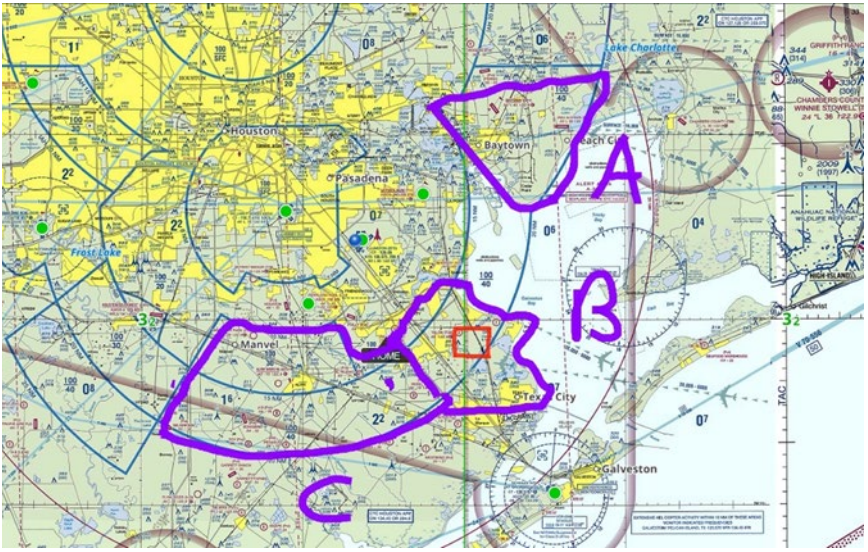
- Dispatch
    - Must be dispatched by Texas Southern University
    - Each flight must be approved by the Chief Pilot of Assistant Chief Pilot

- Cross-Country Flights
    - A Texas Southern University instructor must verify your cross-country flight plan and provide the appropriate endorsement before you perform a solo

cross-country flight. If any solo pilot cross-country flight requires a TSU flight instructor to ride along, the ride along **must** be approved by the Chief Pilot.

D. Practice Area

Students performing a local solo flight to practice maneuvers must remain within the area depicted by a solid blue line on the following map.



E. Hazardous Terrain

- Please refer to the sectional chart

F. Solo Dispatch Procedures

Each solo flight must be approved by a Texas Southern University Flight Instructor. An instructor will sign your dispatch form after ensuring you meet the FAA requirements for solo flight as well as Texas Southern University policies. This includes:

- You are carrying all required documents:
  - Student Pilot Certificate
  - Medical Certificate
  - Photo I.D.
  - Logbook
- You have all the required endorsements, and those endorsements are current
- The weather minimums are met for the flight
- The flight will be to approved airports (as listed in the following page)
- There are no other known factors that unnecessarily increase risk
- Students should request full fuel for solo flights, unless a lower amount is needed due to weight and balance limitations

G. Approved Airports

Student pilots may go to the airports listed on this page, if properly endorsed by a flight instructor.

1. First Solo

The following airports are approved for the first solo flight:

T41 or KEFD

2. Solo Cross-Country Airports

The following airports are over 50nm away and may be used to perform the FAA required solo cross-country flights

KBMT, KBYY, KBPT, KGLS

3. Other Airports

These airports do not meet the cross-country requirement, but may be used to practice landings

T00, KHBY

Appendix A: Airworthiness Checklist

AIRWORTHINESS REQUIREMENTS (14 CFR 91.7)

Documents (14 CFR 91.9, 91.203)	
Airworthiness Document	No expiration, as long properly maintained
Registration	Expires every 3 years
Radio Station License*	Only for international flight
Operating Limitations \ AFM	After 1979 requires AFM
Weight and Balance	No expiration, as long as nothing changes
Supplements & Guides	AFM Supplements and Guides
***Inspections* (14 CFR 91. 403, 91.409, 91.411, 91.413, 91.171, 91.207)**	
Airworthiness Directives	Verify AD Compliance
Annual Inspection	12 Months, performed by an IA
VOR Check	30 Days, performed by the pilot (IFR only)
100-Hour Inspection	For hire & instr. for hire, performed by A&P
Altimeter \ Pitot Static Check	24 Months (IFR only)
Transponder Check	24 Months
ELT Inspection	12 Months
ELT Battery Change or	50% of battery useful shelf-life
Recharge	1 hour of cumulative use
***Day VFR Minimum Equipment* (14 CFR 91.205, 91.207, 91.209)**	
Anti-collision Light*	*After 1996
Tachometer	
Oil Temperature Gauge	
Magnetic Compass	
Altimeter	

Temperature Gauge*	*For each liquid cooled engine
Oil Pressure Gauge	
Fuel Gauges	
Floatation Devices*	*For hire beyond gliding distance of shore
Landing Gear Pos. Indicators*	*If equipped with retractable landing gear
Airspeed Indicator	
Manifold Pressure Gauge*	*For each altitude engine
ELT	
Seat Belts \ Shoulder Harness	*See 91.205(b)(14) for details
Night Minimum Equipment	***IFR Minimum equipment***
Fuses (one kit or 3 of each type) **L**anding Light (for hire) **A**nti-Collision Light **P**osition Lights **S**ource of Electrical Power	**G**enerator or Alternator **R**adio and Navigation Equipment (as req.) **A**ttitude indicator **B**all **C**lock with sweep second hand **A**ltimeter (Sensitive) **R**ate of Turn Indicator **D**irectional Gyro

SPECIAL EQUIPMENT REQUIREMENTS	
Transponder and ADS-B Out Requirements (14 CFR 91.215 & 91.225)	**2-Way Radio Requirements [14 CFR 91.129, .130, .131, .135, .205(d)]**
Class A, B, and C airspace	Class A, B, C, and D
Within 30nm of the primary airport of a Class B airspace	Instrument Flight Rules
Above the lateral boundaries of Class C airspace	
Above 10,000' MSL (If Above 2,500' AGL)	
INOPERATIVE EQUIPMENT (14 CFR 91.213)	
If equipped with a Minimum Equipment List (MEL)	
Follow MEL Instructions	
If not equipped with MEL [14 CFR 91.213(d)]	
Check 14 CFR 91.205	
Check POH\AFM Equipment List	
Check Type Certificate Data Sheet (TCDS)	
Check the Kinds of Operations Equipment List (KOEL)	
Evaluate the effect of inoperative equipment on the safety of flight.	
Inoperative Equipment Procedures	
***At Texas Southern University: Contact the Flight instructor about the discrepancy**	

1. - Remove Equipment (may require an A&P) - Removal may require additional tools and expertise - This requires maintenance or preventive maintenance and must be logged properly in maintenance logbook
2. - Deactivate Equipment (may require an A&P) - Deactivation may require additional tools and expertise - If deactivation involves maintenance or preventive maintenance: must be logged properly in the maintenance logbook
3. Placard the equipment “Inoperative” or “Inop”
4. Annotate the discrepancy (ex. Squawk Sheet)
***At Texas Southern University: Contact the Flight instructor about the discrepancy**

Appendix B:

Pilot Qualifications Checklist

PILOT QUALIFICATIONS

Fitness for Flight (14 CFR 91.17 and AIM 8-1-1)	
Illness	Check for sickness or health conditions
Medicine	Check with Aviation Medical Examiner
Stress	Avoid daily life stresses
Alcohol	8 Hours "Bottle to Throttle", no more than 0.04% BAC
Fatigue	Rest before a flight
Eating	Ensure adequate nutrition and hydration
Currency (14 CFR 61.57)	
Day	At least 3 takeoffs and landings in the last 90 days in the same Category and Class of aircraft
Night	At least 3 takeoffs and full stop landings in the last 90 days, 1 hour after sunset and 1 hour before sunrise in same Category and Class of aircraft
Tailwheel	At least 3 takeoffs and landings to a full stop in the last 90 days in a tailwheel airplane
Instrument	*Using Aircraft, Flight Simulator, FTD, or ATD:* 6 Approaches, a holding pattern, tracking and intercepting courses within the preceding 6 months
	If less than 6 months since last current: Achieve currency while VFR with safety pilot or CFII
	If more than 6 months since last current:

	Instrument Proficiency Check
Documents (14 CFR 61.3)	
Government Issued Photo Identification	
Pilot Certificate	
Medical Certificate or BasicMed	
Additional Endorsement Requirements (14 CFR 61.31)	
Tailwheel	To fly airplanes equipped with a tailwheel
High Performance	To fly airplanes with over 200HP
Complex	To fly airplanes with retractable landing gear, constant-speed propeller and flaps
High Altitude	To fly pressurized airplanes with a maximum service ceiling of 25,000 or higher

Additional Type Ratings (14 CFR 61.31)	
Aircraft requiring additional type ratings	Large Aircraft (>12,500lb.)
	Turbojet Powered Aircraft
	Others specified by the FAA
Medical Requirements (14 CFR 61.23)	
For Airline Transport Pilot:	*First Class (over 40yo):* 6 Months
	First Class (under 40yo): 12 Months
For Commercial Pilot:	*First or Second Class:* 12 Months
For Private Pilot:	*First, Second, or Third Class (over 40yo):* 24 Months
	First, Second, or Third Class (under 40yo): 60 Months
Basic Med (PPL):	*Physical Exam:* 48 Months:
	Online Medical Course: 24 Months
Basic Med Aircraft Limitations (14 CFR 61.113(i))	
Weight:	No more than 6,000 lb. Max TO Weight
Seats:	Not authorized for more than 6 seats
Passengers:	No more than 5 passengers
Operational Restrictions:	May not fly above 18,000' MSL May not fly in excess of 250 knots May not operate outside of US, unless approved by the country over which you are flying

Proficiency
Am I familiar with this aircraft type?
Am I familiar with the avionics?
Am I proficient in the current weather conditions?
Am I proficient in this type of operation?
Am I proficient at the types of procedures that are planned?

Appendix C:

Billing

Flight student billing will be administered by the Aviation Office and Student Accounting. Each student must have a minimum of $5,000 on their student account dedicated to flight training. Currently, this will cover approximately 25 hours of flight time in a single engine aircraft and approximately 17 hours in the twin engine aircraft.

The following courses are listed as laboratory courses that require flight fees.

AVSM – 1305L
AVSM – 2118L
AVSM – 3312L
AVSM – 3115L
AVSM – 3216L
AVSM – 3317L AVSM – 3180L AVSM – 4100 L AVSM – 3216L AVSM – 331

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Student Pilot Signature Chief Pilot Signature

(I have read, understand, and will comply with the

Texas Southern University Student Pilot Handbook)