

**SAFETY
PROCEDURES
AND
PRACTICES**

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CONTACTS

A responsible school official will be on duty in the school's dispatch office during normal business hours (8:00AM-5:00PM), when training flights are being conducted. Contact with one of the school officials may be made after hours in case of an emergency. Telephone numbers are listed below:

Andrew Waterland	Chief Instructor	(816) 510-1859
James Rainen	Assistant Chief Instructor	(816) 739-9772
Thomas Stark	Maintenance Supervisor	(913) 406-7057

SAFETY PROCEDURES AND PRACTICES

Safety of all phases of operation is our prime consideration. Safety must never be sacrificed for expediency, convenience, or any other reason. Recognizing that accidents do not just happen, but are made to happen, the following procedures and practices have been developed as guidelines. Judgment, caution, and a sound understanding of individual and equipment capabilities and limitations are the real basis of an accident free program.

All personnel shall adhere to these procedures and practices so that we all operate in the safest environment possible. Intentional violations will not be tolerated.

For clarity, throughout this SAFETY PROCEDURES AND PRACTICES, the following terminology and definitions shall prevail:

STUDENT: Anyone enrolled in a flight course.

PRIMARY STUDENT: A student enrolled in the Private Pilot or Commercial Pilot course that does not possess a Private Pilot Certificate (Commonly called Student Pilot).

ADVANCED STUDENT: A student enrolled in any flight course that does possess a Private Pilot Certificate.

AUTHORIZED FLIGHT INSTRUCTOR: Any flight instructor authorized to provide instruction in an FAA approved flight school under provisions of FAR 141.

ASSIGNED FLIGHT INSTRUCTOR: The authorized flight instructor assigned to a specific student by the Chief or Assistant Chief Flight Instructor.

DISPATCHER: A designated employee responsible for dispatching the school aircraft and maintaining dispatch records. Authorized flight instructors may also serve as dispatchers.

MAINTENANCE SUPERVISOR: The certified Airframe and Powerplant Mechanic responsible for the maintenance and repair of aircraft utilized in the FAA approved flight school. The Maintenance Supervisor may designate one or more assistants. An Assistant Maintenance Supervisor has the same responsibility and authority as the Maintenance Supervisor.

FLIGHT DISPATCHING: All flights, dual and solo, shall be dispatched in accordance with the flight schedule by a qualified employee designated as the responsible person. Dispatchers shall not dispatch solo flights unless they possess a Dispatch Release Form completed by the student's Assigned Flight Instructor in the event they are not readily available. Dual flights shall be dispatched by the student's Assigned Flight Instructor. All flight dispatches shall be recorded on a Dispatch Form.

CEILING/VISIBILITY MINIMUMS AND MAXIMUM WINDS FOR DISPATCHING AIRCRAFT

Solo students may have additional maximum wind limitations imposed by assigned wind limitation numbers. Refer to LIMITING WIND CONDITIONS section which follows.

DUAL VFR LOCAL FLIGHTS shall be dispatched to the practice area only under the following conditions:

- (1) The weather at the departure airport, enroute, and in the practice area is at least equal to or better than the following criteria forecast to remain so for the duration of the contemplated flight plus 1 hour.

(a)	Primary Students	Ceiling 1,500 feet	Visibility 3 miles
(b)	Advanced Students	Ceiling 1,500 feet	Visibility 3 miles
(c)	Surface Wind	All Aircraft	30 knots
(d)	Crosswind	All Aircraft	Not to exceed crosswind component

SOLO VFR LOCAL FLIGHTS shall be dispatched to the practice area only under the following conditions:

- (1) The weather at the departure airport, enroute, and in the practice area is at least equal to or better than the following criteria forecast to remain so for the duration of the contemplated flight plus 2 hours.

(a)	Primary Students	Ceiling 5,000 feet	Visibility 5 miles
(b)	Advanced Students	Ceiling 2,000 feet	Visibility 4 miles
(c)	Surface Wind	All Aircraft	25 knots
(d)	Crosswind	All Aircraft	10 knots

DUAL VFR CROSS-COUNTRY FLIGHTS shall be dispatched only under the following conditions:

- (1) The weather at the departure airport, enroute, and all airports of intended use are forecast to be at least equal to or better than the following criteria forecast to remain so for the duration of the contemplated flight plus 2 hours.

(a)	Primary Students	Ceiling 3,000 feet	Visibility 5 miles
(b)	Advanced Students	Ceiling 3,000 feet	Visibility 5 miles
(c)	Surface Wind	All Aircraft	30 knots
(d)	Crosswind	All Aircraft	Not to exceed crosswind component

SOLO VFR CROSS-COUNTRY FLIGHTS shall be dispatched only under the following conditions:

- (1) The weather at the departure airport, enroute, and all airports of intended use are forecast to be at least equal to or better than the following criteria forecast to remain so for the duration of the contemplated flight +2 hours for flights under 3 hours and +3 hours for flight over 3 hours.

(a)	Primary Students	Ceiling 5,000 feet	Visibility 5 miles
(b)	Advanced Students	Ceiling 3,000 feet	Visibility 5 miles
(c)	Surface Wind	All Aircraft	25 knots
(d)	Crosswind	All Aircraft	10 knots

SOLO VFR TRAFFIC PATTERN FLIGHTS shall be dispatched only under the following conditions:

- (1) The weather at the departure airport, enroute, and all airports of intended use are forecast to be at least equal to or better than the following criteria forecast to remain so for the duration of the contemplated flight +2 hours for flights under 3 hours and +3 hours for flight over 3 hours.
 - (a) Primary Students Ceiling 5,000 feet Visibility 5 miles
 - (b) Advanced Students Ceiling 2,000 feet Visibility 4 miles
 - (c) Surface Wind All Aircraft 25 knots
 - (d) Crosswind All Aircraft 10 knots

SOLO NIGHT TIME OPERATIONS WILL NOT BE CONDUCTED BY PRIMARY STUDENTS

FLIGHTS SHALL NOT BE DISPATCHED REGARDLESS OF CEILING, VISIBILITY AND WIND CONDITIONS, IF KNOWN OR FORECAST HAZARDOUS WEATHER CONDITIONS SUCH AS ICING, THUNDERSTORMS, HIGH WIND, ETC. EXIST WITHIN THE AREA OF OPERATIONS THAT MAY ENDANGER THE FLIGHT

DUAL IFR FLIGHTS shall be dispatched into instrument meteorological conditions only under the following circumstances:

- (1) The Flight Instructor has been authorized by the Chief Flight Instructor to instruct in instrument conditions in the type of aircraft involved;
- (2) All the required flight instruments, communications and navigation equipment, including transponder, on board are known to be functional;
- (3) The weather at time of takeoff and the forecast for the duration of the contemplated flight +2 hours are such that return to the base of operations can be anticipated using the available instrument approach procedures;
- (4) A suitable alternate airport that meets the requirements of FAR part 91.169 is available and filed; and,
- (5) There are no known or forecast hazardous conditions such as icing, thunderstorms, high winds or other hazards to flight in the area of the contemplated flight.

LIMITING WIND CONDITIONS

- (1) All students in all courses, before being authorized for solo in any aircraft, shall be assigned a maximum surface wind limitation and a maximum crosswind component limitation for that make and model aircraft. The maximum surface wind number, the maximum crosswind component number, and the aircraft make and model shall be recorded with the student's solo endorsement.
- (2) A crosswind computer shall be used to determine the crosswind component for takeoffs and landings.

CHECKLISTS

- (1) Each aircraft is provided with a checklist that covers all phases of ground and flight operations, day or night, VFR and IFR, and all commonly anticipated emergencies. Both instructor pilots and students shall be familiar with the checklists for the aircraft they are flying and adhere to them.
- (2) Students, while flying their own aircraft in a flight course, shall furnish a checklist suitable to the aircraft, and acceptable to the school.

PROPELLER DANGER AREAS

- (1) Any area within 6 feet of a propeller arc should be considered a hazardous area whether the engine is running or static. Inspection of the propeller, propeller hub, nose section, etc., should be made visually. The propeller should be handled at all times as though the engine were going to start. It could! Walking through or putting any part of the body into the propeller arc is extremely hazardous and shall be avoided, unless for preflight inspection of the alternator belt. **HAND PROPPING THE AIRCRAFT'S PROPELLER IS PROHIBITED!**

STARTING OF AIRCRAFT

- (1) The starting of all aircraft shall be in accordance with the appropriate checklists and established procedures and the following general precautions:
 - (a) On the preflight walk around ascertain that the propeller area and the taxi area are clear of all loose objects and debris such as chocks, tow bars, etc. If necessary, reposition the aircraft so that a brake failure on start will not cause the aircraft to roll into an area where collision damage could occur before the engine could be shut down.
 - (b) Ensure that the parking brake is set or hold the foot brake (if applicable), before engaging the starter. Turn on the anti-collision light to warn nearby personnel that the engine is about to be started and VISUALLY clear the propeller danger area. Call "CLEAR!" to warn nearby personnel.
 - (c) Engine speed should not be allowed to go above 1,100 RPM on start in order to minimize wear and tear (unless the aircraft flight manual states otherwise). Shutdown the engine if oil pressure has not started upward within 30 seconds or 60 seconds in very cold weather. The maintenance supervisor should investigate the cause.
 - (d) Entering or leaving an aircraft with the engine running is extremely hazardous and shall be avoided. For that reason, on dual flights, the engine will not be started until both the Flight Instructor and the student are in the aircraft.
 - (e) **UNDER NO CIRCUMSTANCES SHALL ANY AIRCRAFT BE STARTED BY HAND PROPPING.** Contact the Maintenance Supervisor if auxiliary power is needed for starting.

TAXIING

- (1) The hangar and ramp areas are confined and often congested and a great deal of caution is required while maneuvering in these areas. The pilot in command is solely responsible for the safety of the aircraft from the time he or she enters it for flight, until it is shut down and secured. While others may assist a taxiing aircraft in close quarters, the responsibility remains with the pilot-in-command. If in doubt, STOP!
- (2) When taxiing in ramp areas or other confined areas, taxi speed shall be no faster than a normal walk.
- (3) When taxiing on taxiways, taxi speed shall be no faster than 15 knots.
- (4) A good rule about taxi speeds is never taxi so fast that you could not stop safely without brakes.
- (5) Always use the proper application of the flight controls for existing wind.
- (6) Yellow lines may be painted on taxiways and in the ramp areas. While these lines are not infallible, taxiing with the nose wheel on the yellow line will clear the aircraft of all normal obstacles. Departure from the yellow line should be done only to avoid obstacles or to clear other aircraft or vehicles.
- (7) Never follow small aircraft at a distance of less than three or four airplane lengths; unless in line waiting to takeoff.
- (8) Use extreme caution when taxiing behind large propeller driven aircraft and any jets. Breakaway taxi thrust engine exhaust velocities can be as high as 45 MPH within 350 ft. behind a large jet. When taxiing behind a large aircraft is unavoidable, maintain at least 500 ft. separation and exercise extreme caution.
- (9) Under no circumstances are aircraft to be taxied into or out of hangars.

AIRCRAFT FIRES

- (1) The subject of aircraft engine and electrical and cabin fires is a part of every student's checkout in an aircraft. Follow the procedures outlined in checklists and take action as dictated by the situation and good judgement.
- (2) In the event of a fire on the ground, attempt to call for assistance on any radio frequency (tower, ground control, UNICOM, etc.). Do not hesitate to evacuate the aircraft if you determine the fire is uncontrollable. Contact the Dispatcher and Maintenance Supervisor if away from the home base.
- (3) In the event of an uncontrollable fire in flight, land as soon as possible. DO NOT attempt to restart an engine that has been shut down unless an extremely emergency dictates otherwise. If circumstances permit, make radio contact with a tower, FSS, UNICOM, etc. and advise them of your emergency situation. Contact the Dispatcher and Maintenance Supervisor after landing.
- (4) No aircraft shall be dispatched or redispached following a fire unless approved by the Maintenance Supervisor.

- (5) Fire extinguishers are located in our flight line area.
- (6) Smoking is prohibited in the aircraft and in the vicinity of fueling operations.
- (7) Aircraft shall be vacated during fueling.

FIRES AND FIRE DRILL PROCEDURES AT SCHOOL FACILITIES

- (1) The following procedures shall be followed for both an actual fire and for fire drills. The fire department will not be notified in the event of a FIRE DRILL.
 - (a) OFFICE STAFF: Turn in a fire alarm to the local fire department by telephone or any other means available. Specify the location and type of fire. After the alarm has been turned in, supervise the evacuation and securing of the building. If feasible, fight the fire until arrival of the fire department, and then evacuate the building to the north at least 100 yards away.
 - (b) INSTRUCTORS: Assist in the evacuation of the students. Assist in securing the building by turning off lights, electrical equipment and appliances, and closing all doors and windows as the building is evacuated. If feasible, fight the fire until arrival of the fire department, and then evacuate the building into the parking lot to the north.
 - (c) STUDENTS: Evacuate the building as expeditiously and orderly as possible by the nearest exit or as directed by the school staff. Proceed into the parking lot north of the building.

REDISPATCH PROCEDURES

- (1) Unplanned landings at airports during dual flights, for whatever reason, shall be reported to the school Dispatcher or Flight School Manager. If the landing was for weather, fueling, etc., it shall be the responsibility of the Flight Instructor to redispach the flight. If the landing was for mechanical reasons, the Flight Instructor shall contact the Maintenance Supervisor for instruction. The Chief Flight Instructor or Assistant Chief Flight Instructor should be notified prior to redispach.
- (2) Unplanned landings at airports during solo flights, for whatever reason, shall be reported to the school Dispatcher or Flight School Manager. If the landing was for mechanical reasons, the Maintenance Supervisor shall be contacted for instructions. The flight shall not be redispached until approved by the Chief Flight Instructor or Assistant Chief Flight Instructor, and assigned Flight Instructor.
- (3) Unplanned landings off airports, during dual or solo flights, shall be immediately reported to the school Dispatcher. Redispaching of the flight shall be the responsibility of the Chief Flight Instructor only after consulting with and approval from the Maintenance Supervisor.

AIRCRAFT DISCREPANCIES

- (1) All aircraft discrepancies, regardless of how minor, are of importance and shall be recorded in the Aircraft Discrepancy Log.
- (2) Aircraft with known discrepancies SHALL NOT be dispatched unless approval for return to service is recorded on the Aircraft Discrepancy Log by the Maintenance Supervisor.
- (3) No pilot shall operate an aircraft with known discrepancies. If a discrepancy is noted during preflight inspection, it should be reported immediately. DO NOT operate the aircraft until a disposition is made by the Maintenance Supervisor.

SECURING OF AIRCRAFT

- (1) It's the sole responsibility of the pilot-in-command to assure that the aircraft is properly secured prior to leaving, whether at the home base of operations or at another airport. Proper securing shall be accomplished by reference to the aircraft checklist and the following general procedures:
 - (a) At the home base, the aircraft must be left with the brakes disengaged and all doors and windows closed. The front tire must be chocked with the wheel chocks provided in each plane. Signature Flight Support line service shall be responsible for hangering aircraft, however, it's the responsibility of the Dispatcher to ensure that aircraft are hangered during inclement weather and/or the aircraft will not be used for the rest of the day.
 - (b) At airports other than the home base, the aircraft shall be properly parked, tied down, left with the brakes disengaged, doors and windows closed and locked.
 - (c) During enroute fueling stops on cross-country flights, wheel chocks shall be used if tie-down is not available.

FUEL RESERVES

- (1) IFR FLIGHTS proceeding on flight planes filed with ATC shall be governed by the provisions of FAR part 91.167 insofar as fuel and reserve fuel requirements are concerned.
- (2) DUAL AND SOLO VFR LOCAL FLIGHTS, day or night, shall be planned and executed so as to arrive at the base of operations with a minimum of 1-hour usable fuel on board, computed at normal cruising altitudes and power settings.
- (3) DUAL AND SOLO VFR CROSS-COUNTRY FLIGHTS, day or night, shall be planned to arrive at the next point of intended landing with a minimum of 1-hour usable fuel on board, computed at normal cruising altitudes and power settings.
- (4) If weight limitations make the 1-hour usable fuel reserve for dual flights in items 2 and 3 impractical, reserve requirements may be reduced to the minimum fuel requirements for VFR flight in accordance with FAR part 91.151, which specifies daytime minimum of 30 minutes reserve or nighttime 45 minutes reserve.

COLLISION AVOIDANCE

- (1) The primary responsibility for collision avoidance rests almost entirely with the pilot. Although several systems have been designed as safety aids, nothing can replace your vigilance and intuition. It is extremely important that each pilot in the aircraft exercise constant vigilance for other aircraft, both on the ground and in the air, and to inform the pilot controlling the aircraft of all such traffic that could be a factor affecting safety. Review collision avoidance procedures frequently and strive to develop them into positive habits. The following guidelines are included to assist you:
 - (a) Check both the approach and departure paths prior to takeoff and landing;
 - (b) Check both directions before taxiing across a taxiway or runway;
 - (c) Never taxi so fast that you could not stop without brakes;
 - (d) Be particularly vigilant when flying in the vicinity of navigation aids and uncontrolled airports;
 - (e) Fly proper traffic patterns and be alert for the pilot who isn't;
 - (f) Make use of radar advisory services when available, but always keep in mind that radar does not necessarily see all aircraft;
 - (g) Learn and use proper scanning techniques for day and night operations;
 - (h) Use Common Traffic Advisory Frequencies (CTAF) at uncontrolled airports;
 - (i) Turn on the anti-collision lights whenever the engine is running;
 - (j) Abide by the right-of-way rules, however, when in doubt as to the actions of the other aircraft, do not hesitate to give way;
 - (k) When cruising VFR, use the hemispherical rule for cruising altitudes;
 - (l) Use the "Spot Method" for determining the collision potential of another aircraft within your field of vision;
 - (m) Execute periodical "S" turns during prolonged climbs and descents in order to clear the air space in front of you. Avoid steep climbs by using cruise climb as soon as you reach a safe altitude;
 - (n) Know the blind spots of your aircraft, and periodically maneuver to see into the blind spots; and,
 - (o) Make clearing turns prior to entering each flight maneuver involving abnormal flight attitudes.

PRACTICE AREAS

- (1) A VFR practice area have been designed by the school, and are shown on an aeronautical chart in Appendix A and are posted on the wall of each briefing area.
- (2) All solo practice shall be conducted within the designated practice area, and the area to be used shall be recorded on the Aircraft Dispatch Log prior to dispatching the flight.
- (3) Designated routing to the practice area is depicted in Green. Solo students are expected to proceed directly to and from the practice area/airport at a minimum altitude of 2,500 MSL.

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 or within 5 NM radius of an airport unless the Emergency landing procedure can be carried to a safe landing without disruption of other airport traffic.
- (3) In uncongested areas, a practice emergency landing shall not descend to such an altitude that the aircraft is closer than 500 ft. to any person, vehicle, vessel, or structure.

COLD WEATHER OPERATIONS

- (1) All aircraft engines shall be preheated when the ground temperature is below -1°C.
- (2) All flight operations shall cease when the ground temperature is below -25°C

INSTRUCTOR AGREEMENT

Instructors who instruct in any Part 141 course at ATD Flight Systems must receive the Safety Procedures and Practices before instructing that course. The Safety Procedures and Practices should be used as a reference as needed throughout the course of training.

INSTRUCTOR SIGNATURE

NOTE: This Safety Procedures and Practices document shall be kept in the instructor's binder.

Appendix A

Practice Area

