Lewes R/C Club - AMA#440 Training manual - Guide for instructors 2024 This guide is to be kept with the instructor and should be referred to as needed.

The reason for this type of approach is to get the student flying quickly and guided thru each step of the flight training without overwhelming them with information. The instructor can then teach the student pilot at a comfortable pace as required to make them a safe and competent flyer. Most AMA and Lewes club rules are not included here as they can be found on line.

Requirments for Flying at Hopkins Field:

Current AMA membership. Membership in the "Lewes R/C club.

Invited Guests can fly 3 times a year at Hopkins field with Valid AMA membership.

Trust test completion with passing grade. All aircraft must have following info attached:

Pilots name, Address, Phone number, AMA #, UAS #.

Knowledge of AMA rules & Lewes R/C Club rules including time restraints and field boundries. Required locating equipment when Corn is 1 feet tall or higher.

Lesson 1. Pre-flight checks.

Check TX & RX batteries are charged. Check structural integrity of fuselage and that all moving surfaces on aircraft are secure, moving freely in the correct direction.

Check that prop is secure and undamaged.

Conduct Transmitter check - 90 feet from aircraft.

Explain runway operations, right of way, prevailing pattern when others are in the air and the importance of loudly & clearly communicating intentions to other pilots who are flying.

Check wind sock for conditions when preparing for takeoff or landing.

Lesson 2. Aerodynamics & aircraft familiarizatioin.

Explain the 4 forces acting on an aircraft: Lift, thrust, Drag and Gravity.

Explain controls on fixed wing powered aircraft.Throttle -Thrust, Rudder-Yaw, Elevator- Pitch, Ailerons-Roll. Check balance. Slightly nose heavy for first flight prefurred.

Demonstrate safe pit procedures especially with regard to Internal combustion engine starting and movement in the pit area with running Internal combustion engine.

Lesson 3. Basic flight manuvers.

A buddy box system is recommended.

Instructor will take off and trim out airplane for staight & level flight at a reduced speed.

It is recommmended that the instructor land airplane and match trims to students Box and resume

flight, perform a manuver, then have student try to copy it. Start with very simple manuvers.

Gentle aileron turns use right gimbal only. Progress as student gains confidence
& teach use of rudder in air and how to execute a missed approach and unusual atitude recovery.

Suggested manuvers:

Student can practice the following manuvers but not take off or land untill they feel ready to do so.

Taxi on runway to take-off position, taxi off runway to pick-up position Do not Taxi in Pits!

Maintain straight and level flight across the field. Gentle turns maintaining altitude.

Fly the pattern at various speeds. Have student adjust trim for straight and level flight at

various speeds. Practicing slow flight will give the student a sense of how aircraft behaves when landing.

Left hand & right hand turns. Fly a figure eight maintaining altitude.

Lesson 4. Take-off & Landing

Once the student feels comfortable and the instructor feels confident in their ability to safely control the airplane, have them attempt a take-off. Be ready to assume control if needed.
Have them fly for a bit then if they feel comfortable, have them attempt a landing.
A common practice is for the student to accomplish 3 consecutive takeoffs & landings before they are concidered a solo pilot including the ability to recover from unusual attitudes.

Any or all of these required manuvers can be checked off at any time during pilot training.
Taxi to take off & taxi from runway to pick up spot
Take off and landing 3 times.
Straight & level flight

Left & Right turns maintaining altitude

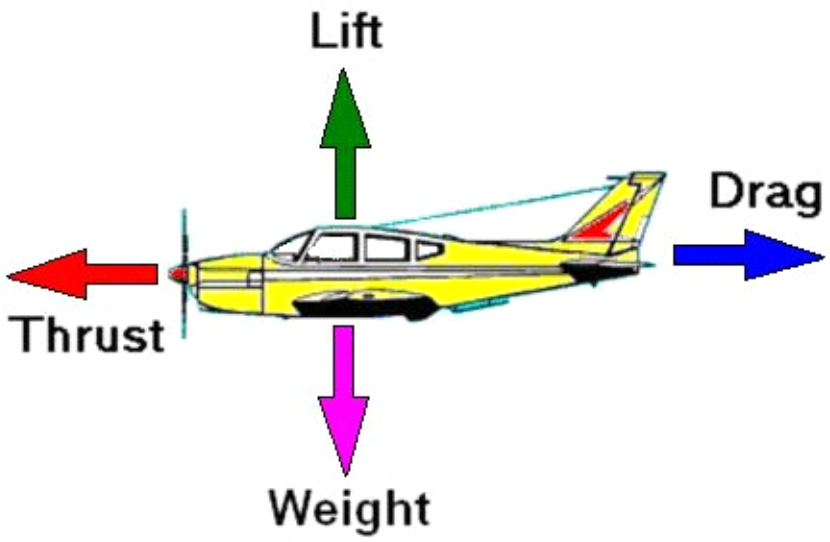
Unusual atittude recovery

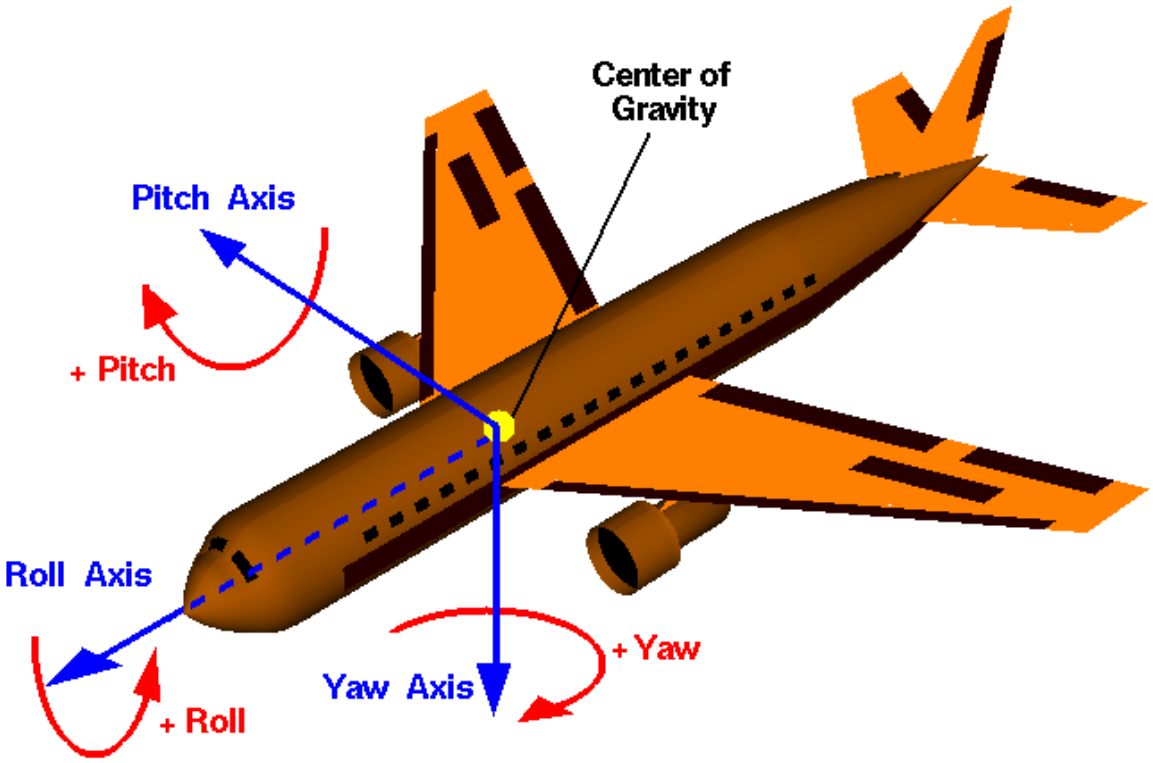
Crosswind landing

Certification:
Date: _____
Instructor Name: _____

As a newly certified R/C aircraft pilot, I agree to abide by the AMA safety code as well as the Rules of the Lewes R/C Flying club

Solo Pilot Name: _____.





For additional help or reference follow thelinks below. The first link includes an excellent video about the mechanics of maintaining straight and level flight. Although this material is about a full size Cessna 152, the same mechanics and physics applies to R/C Models as well, with exception of the instruments and perspective ofa cockpit pilot's view.These Exceptions we need to compensate for from our remote ground perspective. The second link explains and is a visual of flight characteristics of Roll, Pitch and Yaw.

Click on title for website

Straight and Level Flight

Roll-Pitch-and-Yaw Smithsonian National Air and Space Museum