Instructors

1. Eric Beets
   a. Private Pilot - Instrument Airplane

2. Luke Burlingame
   a. Private Pilot
   b. Certified Flight Instructor - Sport
   c. Advanced Ground Instructor
Class Introductions

1. What is your name?
2. What is your experience with aviation?
3. What do you hope to gain from this course? (this will help us develop content that is relevant to your goals)
Course Overview

1. What is Aviation?
2. Aircraft & Aircraft Systems
3. Reading Aviation Maps
4. Radio Communication
5. Aeromedical Factors
6. Weather
Today

1. Pilot certifications & their restrictions
2. Additional ratings
3. Endorsements
The 3rd Class Medical

1. Will be changing within the next year
2. Obtained by receiving a physical from a certified physician
3. Often required to operate an aircraft as pilot-in-command
Student Pilot Certificate

1. Learner’s permit for flying
2. Allows for a student to solo
3. Limitations:
   a. Solo flight or Dual instruction only
   b. Flights to other airports require endorsements
Sport Pilot Certificate

1. Limits pilot to lightweight aircraft
   a. Under 1,320 lb max gross weight
   b. Maximum of 2 seats
2. Can be obtained with as few as 20 hours of flight time
3. Limited to **day** flight in **VFR** weather (good conditions)
4. Additional endorsements can be obtained for:
   a. Tower-controlled airports
Recreational Pilot

Very uncommon, so we will not discuss it
Private Pilot

1. Most common certificate
2. May **not** fly for compensation/hire
3. Limitations:
   a. Tricycle Fixed-Gear
   b. < 200 horsepower engine
   c. < 12,500 max gross weight
Becoming A Private Pilot: Ground Portion

1. Attend a ground school ✓
2. Study using test prep books
3. Take the written exam
Becoming A Private Pilot: Flight Portion

1. Find a flight school & instructor
2. Take frequent lessons
3. Perfect Maneuvers
   a. Steep Turns
   b. Ground Reference Maneuvers
   c. Stalls
4. Solo
5. Practical Test (Checkride)
Becoming A Private Pilot: Minimums

20 hours minimum of flight training with an instructor on the Private Pilot areas of operation including:

1. 3 hours of cross country flight training in a single engine airplane
2. 3 hours of night flight training in a single engine airplane, that includes:
   a. 1 cross country flight of over 100 nm total distance
   b. 10 T/O’s and 10 landings to a full stop with each involving a flight in the traffic pattern at an airport.
3. 3 hours of flight training by reference to instruments in a single engine airplane
4. 3 hours of flight training in a single engine airplane within the 60 days prior to the practical test.
Endorsements

Endorsements give a pilot additional privileges beyond what their basic certificate permits.

They are obtained from a CFI who has previously received the desired endorsement.
Endorsements for Private Pilots

1. **Tailwheel Endorsement**
   a. Tailwheel aircraft

2. **Complex Endorsement**
   a. Retractable-Landing Gear
   b. Constant-Speed Propeller
   c. Retractable flaps

3. **High-Performance Endorsement**
   a. Aircraft over 200 h.p.

4. **High-Altitude Endorsement**
   a. Flying an aircraft with a pressurization system capable of going about 25,000 feet MSL
Ratings

Ratings are obtained through training with an instructor followed by passing a written exam, an oral test, and a practical test (aka checkride).
Ratings

1. Single-Engine Airplane
   a. Land (SEL)
   b. Sea (SES)

2. Multiengine
   a. Land (MEL)
   b. Sea (MES)

Other Categories: Airplane, Rotorcraft, Glider, Lighter than air, Powered lift, Powered parachute, Weight-shift control
Instrument Rating

1. Allows one to operate in less favorable weather conditions
2. Shoot instrument approaches
3. Requires more in-depth weather knowledge
Type Ratings

1. Aircraft with max gross weight over 12,500 lbs.
2. Aircraft powered by turbine engines
Commercial Pilot Certificate

1. Permits a pilot to fly for compensation and/or hire:
   a. Flight Instruction
   b. Banner Towing
   c. Aerial Photography/Tours
   d. Skydiving

2. May **not** fly passengers or cargo under Part 121 and some Part 135 operations
Certified Flight Instructor

1. Certified to give Private Pilot, Commercial Pilot, and CFI training

2. CFI Airplane Ratings:
   a. Single Engine Land/Sea
   b. Multiengine Land/Sea
   c. Instrument (CFII)
Airline Transport Pilot (ATP)

1. **Required** for pilots flying passengers or cargo under Part 121 and some Part 135 operations

2. Airline Pilots and other regularly scheduled flights
What ratings/endorsements are needed?

**Piper Archer**

Max Cruise Speed: 128 knots

Engine (s): Lycoming O-360 (180hp)

Maximum Ramp Weight: 2,558 lb

Propeller: Fixed Pitch

Max Operating Altitude: 14,100 ft

Maximum Passengers: 4 (including pilot)
What ratings/endorsements are needed?

Private Pilot Airplane
Single Engine Land (SEL)

No additional ratings/endorsements needed
What ratings/endorsements are needed?

**Piper Cub**

Max Cruise Speed: 65 knots

Engine(s): Continental A-65-8 (65hp)

Maximum Ramp Weight: 1,220 lb

Propeller: Constant speed

Max Operating Altitude: 11,500 ft

Maximum Passengers: 2 (including pilot)
What ratings/endorsements are needed?

**Sport Pilot Airplane - SEL**
Tailwheel Endorsement (unless they trained in a tailwheel)

**Private Pilot Airplane - SEL**
Tailwheel Endorsement
What ratings/endorsements are needed?

**King Air C90**
Max Cruise Speed: 313 mph
Engine(s): 2x PT6A-135A (550 shp)
Maximum Ramp Weight: 10,545 lb
Propeller: Constant speed
Max Operating Altitude: 30,000 ft
Maximum Passengers: 8
What ratings/endorsements are needed?

Private Pilot Airplane - Multiengine
  Land

  High Performance Endorsement
  Complex Endorsement
  High Altitude Endorsement
Questions?
Next Time

1. Tuesday, October 4th @ 6:00 p.m.
2. Topic: Aircraft Systems