

# Flight Training Syllabus

Student Name: \_\_\_\_\_

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

## Airworthiness Requirement Notes:

1. Required equipment for day/night VFR: 14 CFR 91.205

### Tomato Flaames Flaps

Tachometer  
Oil pressure gauge  
Manifold pressure gauge  
Altimeter  
Temperature gauge for each liquid cooled engine  
Oil temperature gauge for each air-cooled engine

Fuel gauge indicating the quantity in each tank  
Floatation gear if for hire and if over water beyond power off gliding distance from shore  
Landing gear position indicator if airplane has retractable landing gear  
Airspeed indicator  
Anti-collision light system  
Magnetic direction indicator  
ELT if required by 14 CFR 91.207  
Safety belts and shoulder harness

### Night:

Fuses – one spare set or three fuses of each kind required accessible to the pilot in flight  
Landing light if operated for hire  
Anti-collision light system – approved aviation red or white  
Position lights (navigation lights)  
Source of electrical energy – adequate for all installed electrical and radio equipment.

2. Determining airworthiness for airplanes with inoperative instruments and equipment with and without MELs:

- a. 14 CFR 91.213: To determine airworthiness check:
  - i. **CFR 91.205, 91.207, 91.213** → if required by these A/C is grounded
  - ii. **KOL** → if required by this then A/C is grounded.
  - iii. **VFR Day Type certificate** @ end of AD folder. Lists all equipment that was present during original FAA certification. If any of the equipment in this list is not working then A/C is grounded.
  - iv. **Airworthiness Directives**
  - v. **Placard it, deactivate it, and log it** in MX log. (To deactivate use circuit breaker or tie rap)
  - vi. **PIC** must determine if A/C safe for flight.
- b. MELs:
  - i. A list of equipment that can be inoperative and will not affect airplane airworthiness. If inoperative equipment is in the MEL, need to placard, deactivate, and log.
  - ii. Manufacturer Proposed MELs ↔ FAA get together and devise a Master MEL
  - iii. Master MEL + LOA + Operating Specifications + Maintenance Procedures = STC (supplemental type certificate)
  - iv. LOA needs to be in full view and is needed to operate.

3. Required Inspections: (14 CFR part 91.409)

- a. **Annual** inspection in the preceding 12-calendar months. (14 CFR part 91.409)
- b. **100-hour** inspection if carrying persons for hire or giving flight instruction for hire (in your own plane). May not be exceeded by more than 10 hours. (14 CFR part 91.409)
- c. **Transponder** check every 24 calendar months. (14 CFR part 91.413)

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- d. **Pitot-static system** every 24 calendar months if IFR. (14 CFR part 91.411)
  - e. **ELT** (emergency locator transmitter) and ELT battery every 12 calendar months. (14 CFR 91.207) Must be inspected for:
    - i. Proper installation
    - ii. Battery corrosion
    - iii. Operations of the controls and crash sensors
    - iv. Sufficient signal generated by the antenna
    - v. Batteries must be replaced when:
      - 1. The transmitter has been used for more than 1 cumulative hour
      - 2. When 50% of their useful life has expired
4. Airworthiness Directives (ADs) have a variety of compliance intervals and can be tracked in the aircraft maintenance logs.
- a. Type of ADs
    - i. Recurring
      - 1. Calendar
      - 2. Tach
    - ii. 1-Time
      - 1. On Notification
      - 2. Event
    - iii. Emergency
  - b. NOTE: Difference between AD and schedule maintenance is that ADs are issued and set by the FAA and they are considered regulatory and mandatory in nature. The manufacturer for the specific make and model of airplane sets schedule maintenance procedures.
  - c. AD is not valid if:
    - i. Modifications are made (not STC modifications which are OK)
    - ii. AD expires
    - iii. Schedule maintenance is not complied with
      - 1. STC is a supplemental type certificate, issued for a specific "Type" of aircraft, i.e. C210. Airworthiness certificate will still be valid.