

Pre-Solo Written Test Preparation

Prior to solo flight, the FAA requires the student pilot to pass a written knowledge test. The test must address the student's knowledge of

- i. applicable sections of §61 and §91
- ii. Airspace rules and procedures for the airport at which the student will be flying
- iii. Flight characteristics and operations limitations for the make and model of the aircraft to be flown

(these requirements are stated in §61.87). The following study guide lists the applicable FAR sections, parts of the AIM and POH to read and review for the pre-solo written test.

1 FAA Regulations

- a) FAR §61 subpart C "student pilots". Specifically: §61.81 - §61.95
- b) FAR §67 subpart D "Third Class Airman Medical Certificate", §67.301-§67.315
- c) FAR §91 sections §91.1 - §91.9, §91.13, §91.103, §91.111, §91.113, §91.119, §91.121-133, §91.203-207

2 AIM - review on Airport markings, airspace, radio procedures and airport operations

The following items reference the standard Airman's Information Manual, year 2000, the numbers are paragraph numbers. A "*" means all numbers.

- a) Airport Markings: AIM 2-3-1 through 2-3-5
- b) Airspace as appropriate for the airport: 3-2-* and 3-3-*, 3-5-4 for airports with parachute jump operations. Pay particular attention to when and where mode C is required. Identify the airspace your home airport is in and what the minimum VFR visibility and cloud clearance requirements are.
- c) Radio Communications: 4-2-1 through 4-2-4, and 4-2-13
- d) Airport Operations: 4-3-1 through 4-3-6 as appropriate for the airport of solo, 4-3-18, 4-3-20, 4-3-22.
- e) Emergency Procedures: 6-1-1, 6-1-2, 6-2-2, 6-2-5, 6-3-*, 6-4-*,

3 Aircraft Performance

Review the pilot's operating handbook for the aircraft in which you will solo. It is strongly recommended that each student own a copy of the POH. In particular, be familiar with the following sections:

1. Standard and emergency checklists for all flight operations
2. pre-flight and engine run-up actions
3. taxi procedures, control positions for wind
4. fuel system; total capacity, selector valve options, use of fuel pump if required
5. Engine operations; use of mixture, carb heat and throttle
6. aircraft weights: listed and actual empty weight, fuel weights etc.
7. speeds to fly: all the "V-Speeds" including: V_x , V_y , V_{fe} , V_a , V_{ne} , V_{so} (flaps up and down), and best glide speed,
8. Flight instruments: setting and checking instruments during pre-flight and run-up
9. Emergency Procedures (airspeeds, checklists, off-airport landings - POH and AFH)