

Student Pilot: _____

Pre-Solo Training Lesson 1 Dual-Local

The first lesson consists of familiarization with the airplane and its operating procedures, the sensations of flight, the local flight area, and the use of controls and instruments. The following items should be covered in non-technical terms:

1. PREFLIGHT DISCUSSION. Cover lesson items.

2. AIRPLANE FAMILIARIZATION.

Pre-inspection familiarization:

Airplane registration, airworthiness, and equipment documents.

Airframe and engine logbooks and inspection records.

Airplane flight manual or operation placards.

Explanation of controls, instruments, and systems.

Exterior inspection:

Complete external inspection of aircraft for condition and readiness for flight with the use of a checklist.

3. STARTING THE ENGINE. Demonstration - follow checklist.

Safety precautions

Hand cranking. Discussion.

4. RADIO PROCEDURES.

Radio switches and tuning. Discussion.

Radio check and voice communication.

5. TAXIING. Demonstration and student practice.

Use of throttle and brakes.

Proper use of elevator and aileron controls.

Starting, stopping, and turning.

6. PRE-TAKEOFF CHECK. Demonstration with student participation.

Explanation of checklist items.

Clearing before takeoff.

7. TAKEOFF, TRAFFIC PATTERN, AND CLIMBOUT. Demonstration.

8. FAMILIARIZATION FLIGHT. Demonstration and performance by student as feasible.

Control effect and usage (VR and IR).

Flight area familiarization.

Straight and level (VR and IR).

Pitch and bank control (VR and IR).

9. APPROACH, TRAFFIC PATTERN, LANDING, AND PARKING. Demonstration.

10. POSTFLIGHT DISCUSSION.

Review lesson.

Preview of next lesson.

Assignment of study material. (Airplane introduction & systems.)

Date lesson
completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 2 Dual-Local

During the second lesson, the student should learn to perform the four basic flight maneuvers: straight and level, turns, climbs, and descents without assistance, and slow flight and power-off stalls under the direction of the instructor.

1. PREFLIGHT DISCUSSION. Cover lesson items and review as required.
2. STARTING THE ENGINE. Directed performance.
3. RADIO COMMUNICATION PROCEDURES. Directed performance.
 - Voice communication procedures per [AIM](#).
 - Line of sight transmission.
 - Voice communication discipline (5 W's).
4. TAXIING. Proper control usage.
5. PRE-TAKEOFF CHECK. Directed performance.
6. TAKEOFF & TRAFFIC PATTERN. Demonstration with student follow-through.
 - Application of power.
 - Order on control effectiveness.
 - Left turning tendency.
 - Takeoff roll.
 - Leaving the ground.
 - Use of controls after becoming airborne.
 - Collision avoidance precautions.
7. CLIMBING TURNS. Demonstration and performance (VR and IR).
 - Constant rate of turn (left and right).
 - Control pressure (left and right).
 - Control of left turning tendency.
 - Control of airspeed.
8. STRAIGHT AND LEVEL. Directed performance (VR and IR).
9. MEDIUM TURNS - 30°. Demonstration and performance (VR and IR).

10. SLOW FLIGHT. Demonstration and performance.

- Change of attitude with change of airspeed.
- Reduced effectiveness of controls at low airspeed.
- Left turning tendency at low airspeed.
- Effect of trimming on control pressure.
- Over controlling at low airspeed.

11. POWER-OFF STALLS. Demonstration and student performance.

- Straight ahead - recognition and recovery.
- Turning - recognition and recovery.

12. STEEP TURNS - 45° Demonstration.

- Tendency of airplane to over bank from steep attitude.
- Recovery technique.

13. CONFIDENCE MANEUVERS. Demonstration and performance.

- Static and dynamic stability.
- Hands off flight - straight and level, medium turns.

14. DESCENTS AND GLIDING TURNS. Demonstration and performance (VR and IR).

- Use of carburetor heat.
- Emphasis of proper glide airspeed.
- Absence of torque effect in turns.

15. APPROACH, TRAFFIC PATTERN, AND LANDING. Demonstration with student follow-through.

- Establish interval with other traffic.
- Altitude and angle of pattern entry.
- Associate wind velocity with size of pattern.
- Note KEY position and glide angle.
- Position at beginning of flare.
- Attitude at touchdown.

16. TAXIING AND PARKING.

- Minimum use of brakes.
- Proper control use.
- Observance of ground control instructions.
- Proper approach to parking position.

17. POSTFLIGHT DISCUSSION.

- Review lesson.
- Preview of next lesson.
- Assignment of study material. (Airports, communications, and air traffic control.)

Date lesson
completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 3 Dual-Local

During this lesson, the student should attain reasonable proficiency and learn to perform the four basic flight maneuvers, slow flight, power-off stalls, and simple coordination exercises without assistance. From now on, the student should be responsible for the preflight inspection, starting, radio communication, taxiing, and parking without direction from the instructor, except in case of unusual circumstances or in new, unfamiliar situations.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. TAKEOFF. Student performance with instructor follow-through.
3. TRAFFIC PATTERN AND DEPARTURE. Directed performance.
 - Ground track.
 - Drift correction during turns.
 - Traffic avoidance.
4. CLIMBS AND CLIMBING TURNS. Directed performance (VR and IR).
 - Application of controls.
 - Constant angle of bank and rate of turn.
 - Definite 90° turns for proper clearing.
5. LEVEL-OFF FROM CLIMBS AND GLIDES. Directed performance.
 - Altitude control while attaining cruise speed.
 - Trimming technique.
 - Power adjustment.
6. STRAIGHT AND LEVEL AND MEDIUM TURNS. Practice.
 - Pitch control.
 - Bank control.
 - Power adjustments and altitude control.
7. COORDINATION EXERCISES. Directed performance.
 - Coordination of controls for turns, climbs, and glides.
 - Entry and recovery.

8. SPEED CHANGES IN LEVEL FLIGHT. Directed performance. (VR and IR).

- Changes to attitude and airspeed.
- Coordination of controls and power adjustments.

9. SLOW FLIGHT AND POWER-OFF STALLS. Practice (VR and IR).

- Changes of control pressure and control movement at slow airspeed.
- Left turning tendency.
- Coordination of controls for stall entry and recovery.

10. GLIDES AND GLIDING TURNS. Practice.

- Constant pitch attitude and airspeed.
- Power adjustment for level-off.
- Spiral recovery, full or partial panel.

11. AIRPORT APPROACH AND TRAFFIC PATTERN. Directed performance.

- Determining active runway.
- Planning entry into pattern and normal traffic flow.
- Adapting to variations in pattern size and traffic speed.
- Corrections for drift.

12. POSTFLIGHT DISCUSSION.

- Review lesson.
- Preview of next lesson.
- Assignment of study material. (Weight and balance.)

Date lesson
completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 4 Dual-Local

During this lesson, the student should achieve the ability to recognize and recover smoothly from stalls without direction, fly prescribed patterns by ground references, and execute a traffic pattern and landing approach with the instructor's direction. The instrument training hood should be introduced.

1. PREFLIGHT DISCUSSION. Instruction and review.

2. TAKEOFF, TRAFFIC PATTERN, AND DEPARTURE. Directed practice.

Establish safe interval in takeoff traffic.

Correction for drift.

Establish correct attitude for climb.

Observance of correct altitudes and procedures for departure.

3. STRAIGHT AND LEVEL, TURNS, CLIMBS, AND DESCENTS. Student review and demonstration (VR and IR).

Pitch and bank control.

Differences in control pressures between left and right turns.

Attitude plus power equals aircraft performance.

Clearing turns during descents.

4. SLOW FLIGHT AND STALLS. Directed practice (VR and IR).

Power on / power off stalls.

Control of attitude and power required.

Altitude control.

Airspeed control.

Directional control.

5. TURNS TO HEADINGS. Directed performance.

180° and 360° turns left and right.

Turns to different magnetic compass headings.

6. GROUND REFERENCE MANEUVERS. Directed performance.

Following a road.

Rectangular course:

Application of controls.

Planning and timing.

Drift corrections.

Altitude control.

Turns about a point.

S-turns across a road.

7. ELEMENTARY FORCED LANDINGS. Directed performance.

Immediately following takeoff - straight ahead.

Awareness of location and wind direction at all times.

Selecting a landing area.

8. TRAFFIC PATTERN AND LANDING APPROACH. Directed practice.

Clearing in all directions.

Emphasis on ground track.

Altitude control.

Missed approach procedure.

9. POSTFLIGHT DISCUSSION.

Review lesson.

Preview of next lesson.

Assignment of study material. (Takeoffs and landings, emergencies.)

Date lesson completed:

CFI:

Flight Inst:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 5 Dual-Local

This lesson is a review of the flight maneuvers and procedures already covered in preparation for serious work on takeoffs and landings and on traffic pattern operation. Reasonable proficiency in all coordination, airspeed control, and ground reference maneuvers should be achieved before takeoff and landing practice is initiated.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. PREFLIGHT OPERATIONS. Demonstration by student.
 - Engine starting.
 - Taxiing.
 - Runup and pre-takeoff check, following a checklist.
3. COORDINATION MANEUVERS. Demonstration by student (VR and IR).
 - Straight and level.
 - Ascending turns.
 - Descending turns.
 - Medium bank level turns.
4. SLOW FLIGHT AND STALLS. Demonstration by student (VR and IR).
 - Attitude and power adjustments.
 - Entry and recovery.
 - Altitude and airspeed control.
5. GROUND REFERENCE MANEUVERS. Student demonstration.
 - Entry.
 - Estimating distances over the ground at low altitude.
 - Coordination and application of controls.
 - Planning and timing.
 - Drift correction and altitude control.
 - Looking around for other traffic.
6. EMERGENCY PROCEDURES. Demonstration and performance.
 - Replacing fuses, or resetting circuit breakers.
 - Loss of fuel or oil pressure.
 - Unexpected changes in weather conditions.
 - Communication procedures for declaring and emergency.
 - Electrical fire or smoke.
 - ATC light signals.
7. TAKEOFF AND LANDING. Directed performance.
 - Clearing for other traffic.
 - Alignment with runway.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

- Application of controls and power.
- Control of left turning tendency.
- Application of controls after leaving ground.
- Control of climb speed.
- Attitude and power adjustments for landing.

8. TRAFFIC PATTERN FLYING, ENTRY, AND DEPARTURE. Practice.

- Conformity to established procedures.
- Pattern departure and reentry.

9. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material. (Meteorology.)

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 6 Dual-Local

Concentrated practice of takeoffs and landings should begin with this lesson. Reviews of previously introduced flight maneuvers should be practiced, and steep turns, accelerated stalls, and recovery from unusual attitudes should be introduced.

By the completion of this lesson, the student should be able to make directed takeoffs and landings without assistance on the controls. Simulated forced landings should be introduced at unannounced points during this lesson, and hereafter.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. TAKEOFFS AND LANDINGS. Directed practice.
 - Demonstrated judgment and improved standard of performance.
 - Reaction to unfamiliar situations.
3. TRAFFIC PATTERN FLYING, DEPARTURES AND ENTRIES. Practice.
 - Slow flight in traffic pattern.
 - Drift correction.
 - Adjustment of pattern size to changes in wind velocity.
 - Entry and departure.
 - Wake avoidance.
4. STEEP TURNS. Student performance (VR and IR).
 - Coordination of controls.
 - Entry and recovery.
 - Altitude control.
 - Airspeed control.
5. ACCELERATED STALLS. Demonstration and student performance.
 - Awareness of high "G" loads at high airspeed.
 - Understanding and importance of "maneuvering speed."
 - Airframe structural limits.
6. RECOVERY FROM UNUSUAL ATTITUDES. Directed performance (IR).
 - Instrument interpretation.
 - Coordination of controls.
 - Power adjustment as required.
7. POSTFLIGHT DISCUSSION.
 - Review of lesson.
 - Preview of next lesson.
 - Assignment of study material. (FARs)

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 7 Dual-Local

Crosswind takeoffs and landings, as well as slips, should be added to the practice of normal takeoffs and landings. At the completion of this lesson, the student should be able to make unassisted takeoffs and landings and fly reasonably precise traffic patterns.

Short reviews of previously covered maneuvers should be introduced occasionally during takeoff and landing practice.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. TAKEOFFS AND LANDINGS. Directed practice.
 - Recovery from poor or bounced landings.
 - Consistently accurate pattern.
 - Self correction of errors.
 - Display of initiative in unfamiliar situations.
 - Landings with idle partial power.
3. SLIPS. Demonstration and performance.
 - Demonstrate effectiveness of aileron in controlling direction in pronounced slip at altitude.
 - Entry and recovery at proper time.
 - Dissipation of proper amount of altitude.
 - Slips during emergency landings.
 - Slips to normal landings.
4. CROSSWIND TAKEOFFS AND LANDINGS. Demonstration and performance.
 - Coordination of controls during and after takeoff.
 - Crab method of approach.
 - Slip method of landing.
 - Transition to slip for touchdown.
5. USE OF FLAPS. Demonstration and practice.
 - Flap placard speed.
 - Purpose of flaps and when flaps should be used.
 - Caution and procedure for retraction.
 - Change of attitude for constant airspeed.
 - Lift and drag effects.
 - Descents with and without turns.
 - Partial flap setting increases angle of climb and decreases rate of climb.

6. BALKED TAKEOFFS. Demonstration and performance.

- Coordination of controls.
- Deceleration procedure.
- Maintaining alignment with runway.

7. EMERGENCY GO-AROUNDS. Demonstration and practice.

- Circumstances which necessitate go-arounds.
- Coordination of controls.
- During approach and in flare from various attitudes including turns.
- Repositioning into traffic flow.
- Planning to avoid go-arounds.

8. REVIEW OF EARLIER MANEUVERS. Practice.

9. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assign study material. (Medical factors of flight.)

Date lesson completed:

CFI:

Flight Inst:

Ground Inst:

Student Pilot: _____

Pre-Solo Training Lesson 8 Dual Solo-Local

At the completion of the dual portion of this lesson, the student should have achieved reasonable proficiency in all of the previous flight training maneuvers. The student should be able to make safe takeoffs and landings consistently without assistance or direction, and recover from poor approaches and bad bounces. The ability to solve all ordinary problems to be encountered on local flights should be evident. All requirements required by FAR 61.87 should be met including the completion of the pre-solo written exam.

Three solo flights are recommended during the first solo period, if observed performance is satisfactory, to build the student's confidence. No further solo flights should be authorized until after a rest period and further dual review of basic maneuvers.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. SLOW FLIGHT AND STALLS. Review (VR and IR).
 - Coordination of controls and power adjustments.
 - Altitude and airspeed control.
 - Entry and recovery from stalls.
 - Prompt recognition of stall occurrence.
3. COORDINATION EXERCISES. Review.
 - Straight and level.
 - Turns.
 - Climbs.
 - Glides.
4. EMERGENCIES. Review.
 - Awareness of wind changes.
 - Power loss at low and medium altitude.
 - Traffic congestion and overcrowding in pattern.
 - Change of active runway.
5. TURNS ABOUT A POINT. Directed performance.
 - Coordination of controls.
 - Drift correction.
 - Altitude and airspeed control.
 - Entry and recovery.
6. CROSS-CONTROL STALLS. Demonstration.
 - Misuse of controls.
 - Entry and recovery.

7. TAKEOFFS AND LANDINGS. Practice.

- Maintain proper glide angle.
- Airspeed control.
- Coordination of controls.
- Flare and touchdown.
- Display of good judgment.

8. MAXIMUM PERFORMANCE TAKEOFF. Demonstration and performance.

- Application of power.
- Best angle or rate of climb airspeed and attitude.
- Assuming normal climb.

9. THE SOLO FLIGHT. Instructor observes at least three landings to a full stop.

10. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material. (Aeronautical charts.)

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Post-Solo Training Lesson 9 Dual Solo-Local

The introduction of and instruction in additional maneuvers and procedures should continue after the first solo flights. Progressively higher standards of performance should be required for maneuvers previously learned.

This lesson should consist of a review of pre-solo flight maneuvers, and the introduction and practice of maximum performance takeoffs and climbs, precision turns and precision 180 and 360 approaches. In addition, four or five solo flights in the traffic pattern should be permitted, depending on the student's performance. At the completion of this lesson the student should be ready for "Phase check 1" to be followed by local solo in the familiar practice areas after the two instructors concur.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. REVIEW OF PRE-SOLO MANEUVERS. Practice (VR and IR).
 - Straight and level.
 - Medium turns.
 - Climbing and gliding turns.
 - Slow flight and power-off stalls.
3. MAXIMUM PERFORMANCE TAKEOFFS AND CLIMBS. Practice.
 - Coordination of controls.
 - Altitude and speed control.
 - Transition to normal climb.
4. PRECISION TURNS. Directed practice.
 - Coordination of controls.
 - Pitch and bank control.
 - Entry and recovery.
5. PRECISION APPROACHES (POWER-OFF). Demonstration and performance.
 - Recognition of key position.
 - Maintaining airspeed.
 - Adjusting pattern to compensate for lack of power.
 - Bailed landings.
6. TAKEOFFS AND LANDINGS. Dual and solo practice.
 - At least four or five takeoffs and full stop landings.
 - Full stall or wheel landings.
 - Bailed landings.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

7. POSTFLIGHT DISCUSSION.

Review of lesson.

Preview of first phase check.

Assignment of study material. (Radio navigation.)

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

Student Pilot: _____

Post-Solo Training Lesson 10 - Phase Check Dual-Local

This lesson is the student's first of two independent evaluations by a second instructor. The purpose of this phase check is:

1. To help the student's regular instructor with a second opinion on the student's performance.
2. To suggest, perhaps untried, approaches in the student's weakest areas.
3. To help prepare the student for flight with a designated examiner.

Except for the magnetic compass segment, all of the maneuvers in this lesson should be review for the student. This phase check cannot be "failed". At its completion, the student should be ready for local solo flights outside the traffic pattern in areas assigned by his regular instructor.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. FLIGHT MANEUVERS. Review (VR and IR).
 - Straight and level.
 - Turns.
 - Climbs.
 - Glides.
3. RECOVERY FROM UNUSUAL ATTITUDES. Review (IR).
 - Instrument interpretation.
 - Coordination of controls.
 - Power adjustment as required.
4. GROUND REFERENCE MANEUVERS. Review.
 - Rectangular pattern.
 - Planning and drift correction.
 - Turns about a point.
 - Uniformity of turn radius.
5. SLOW FLIGHT AND STALLS. Review (VR and IR).
 - Airspeed and altitude control.
 - Attitude and power adjustments.
 - Stall entry and recovery.
6. PRECISION APPROACHES (POWER-OFF).
 - Recognition of key position.
 - Airspeed control.
 - Adjusting pattern to compensate for idle power.

7. USE OF THE MAGNETIC COMPASS. Demonstration and directed performance (VR and IR).

- Averaging turn needle.
- Turning errors.
- Acceleration and deceleration errors.
- Compass correction card.
- Effect of local magnetic fields.

8. TAKEOFFS AND LANDINGS. Review.

- Consistent pattern.
- Airspeed control.
- Self-correction of errors.
- Go-arounds.

9. POST-FLIGHT DISCUSSION. Phase check instructor's estimation of student's strong points and areas needing most practice and further dual.

- Review of lesson:
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Post-Solo Training Lesson 11 Solo-Local

Provided conditions allow, this is the first lesson the student is permitted to solo without previous dual checkout. It should include the practice of specified maneuvers and procedures within assigned practice areas, and normal takeoffs and landings. At its completion, the student should have confidence and a sense of ease in flight which will make him receptive to new areas of instruction.

1. PREFLIGHT DISCUSSION. Assignment of maneuvers and areas.

2. TAKEOFFS AND LANDINGS. Solo practice.

- Preflight check.
- Clearance.
- Taxiing.
- Run-up and pre-takeoff check.
- Traffic pattern.
- Approach.
- Landing.

3. FLIGHT MANEUVERS AND PROCEDURES. Solo practice as assigned.

-
-
-
-

4. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material. (Flight publications.)

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Post-Solo Training Lesson 12 Dual Solo-Local

This lesson should be approximately equally divided between dual and solo flight. At its completion, the student should have demonstrated his ability to maneuver and land the airplane confidently without direction or assistance, and be prepared for cross-country instruction.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. SLOW FLIGHT AND STALLS. Review (VR and IR).
 - Recognize rapid approach of stall from slow flight condition.
 - Recovery with no secondary stall tendency.
 - Minimum loss of altitude.
 - Coordination of controls.
3. STALL FROM CRITICAL FLIGHT SITUATIONS. Demonstration and performance.
 - Entry and recovery.
 - Recognition.
 - Minimum loss of altitude.
 - Avoidance of secondary stall.
4. COORDINATION MANEUVERS. Review.
 - Straight and level.
 - Turns.
 - Climbs.
 - Glides.
5. GROUND REFERENCE MANEUVERS. Review.
 - Entry.
 - Drift correction.
 - Constant radius of turns.
 - Airspeed and altitude control.
6. CROSSWIND TAKEOFFS AND LANDINGS. Practice.
 - Coordination of controls.
 - Elimination of drift on takeoff.
 - Liftoff and transition to normal climb.
 - Drift correction on approach and touchdown.
7. TAKEOFFS AND LANDINGS. Practice.
 - Preflight check.
 - Run-up and pre-takeoff check.
 - Clearance.
 - Approach and landing.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

8. SOLO PRACTICE. As directed.

-
-
-
-

9. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material. (Flight computer cross-country flying.)

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 13 Dual/Cross-Country

This lesson should be approximately equally divided between ground instruction and dual flight instruction. Flight preparation should be thorough, and each step carefully explained to the student. The out-and-back flight should be made over an approximate one-hour course.

The private pilot written should be completed by this point.

1. PREFLIGHT PREPARATION. Ground instruction: Course plotting and preparing cross-country log sheet.

- Charts and chart reading.
- Route survey.
- Course plotting.
- Preparing the flight log.
- Weather briefing.
- Filing the flight plan.

2. CROSS-COUNTRY FLYING. Directed performance (VR and IR).

- Pilotage: Identification of landmarks from charts.
- Dead reckoning: Making good desired track, recalculating wind direction, velocity, and checkpoints.
- Tracking VOR radials and checking against plotted course.

3. CROSS-COUNTRY EMERGENCIES. Directed practice.

- Loss of charts.
- Deteriorating weather.
- Low fuel state.
- Imminent forced landing.
- Unexpected wind velocity.

4. UNFAMILIAR AIRPORT PROCEDURE. Directed performance.

- Establishing contact with tower, unicom, or FSS.
- Determination of landing direction (no radio communication.)
- Pattern entry and landing.
- Care in taxiing and parking.

5. USE OF RADIO FOR ENROUTE COMMUNICATIONS. Directed performance.

- Selection of stations and frequencies.
- Adherence to radio communication procedures.
- Importance of making position known.
- Checking for weather.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

6. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 14 Solo-Local

This lesson includes solo practice on flight maneuvers, takeoffs and landings, and the use of navigational radios.

1. PREFLIGHT DISCUSSION. Assignment of maneuvers and practice areas.
2. TAKEOFFS AND LANDINGS. Solo practice.
3. CROSSWIND TAKEOFFS AND LANDINGS. Solo practice as practicable.
4. SLOW FLIGHT AND STALLS. Solo practice.
5. TRACKING TO AND FROM VOR RANGE. Solo practice.
6. STEEP TURNS. Solo practice.
7. FLIGHT MANEUVERS SPECIFICALLY ASSIGNED BY INSTRUCTOR.
 -
 -
 -
 -
8. POSTFLIGHT DISCUSSION.
 - Review of lesson.
 - Preview of next lesson.
 - Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Cross-Country Lesson 15 Dual/Long Cross-Country

This lesson should be a triangular flight requiring approximately 3 hours of flight time, using pilotage, dead reckoning, and radio navigation. At the completion of this lesson the student should be prepared for VFR navigation over unfamiliar courses, and have the ability to cope with common cross-country emergencies.

1. PREFLIGHT DISCUSSION. Flight planning and preparation.
2. VFR NAVIGATION. Practice.
 - Pilotage: landmark recognition and chart reading.
 - Dead reckoning: time, distance, and course.
 - Use of radio aids: VOR radial tracking, establishing of a fix or position using VOR radials.
3. PROCEDURES TO FOLLOW WHEN LOST. Directed performance.
 - Communication procedures: VHF transponder.
 - Following planned course.
 - VOR intersections.
4. SIMULATED INADVERTENT ENCOUNTER WITH ADVERSE WEATHER. Directed practice.
 - Transition to IR.
 - Course of action.
 - Course and estimate to alternate destination.
5. UNFAMILIAR AIRPORT PROCEDURES. Practice.
 - Determining wind direction.
 - Communication with ground if facilities available.
 - Pattern entry and landing.
 - Obstructions.
 - Taxiing and parking.
6. USE OF RADIO FOR ENROUTE COMMUNICATIONS. Practice.
 - Selection of stations and frequencies.
 - Flight Service Stations.
 - Importance of making position known.
 - Radar traffic advisories.
 - Opening and closing flight plan.
 - Flight Watch on 122.0 (EFAS).

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

7. CROSS-COUNTRY EMERGENCIES. Practice.

- Replacing fuses or resetting circuit breakers
- Loss of radio communications.
- Partial loss of power.
- Preparing for darkness.

8. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 16 Dual-Local

This lesson concentrates on procedures appropriate to possible cross-country flight emergencies in preparation for extended solo cross-country flights. At its completion, the student should be competent in coping with common navigation and weather emergencies encountered on solo cross-country flights.

1. PREFLIGHT DISCUSSION. Instruction and review.
2. SHORT-FIELD TAKEOFFS AND LANDINGS. Demonstration and practice.
 - Positioning and alignment.
 - Application of power.
 - Use of flaps.
 - Airspeed to rotate and climb.
 - Transition to normal climb speed.
3. SOFT-FIELD TAKEOFFS AND LANDINGS. Demonstration and practice.
 - Takeoff technique.
 - Acceleration to normal climb speed.
 - Use of flaps.
 - Use of power during flare to obtain touchdown as slow and soft as possible.
4. CROSSWIND TAKEOFFS AND LANDINGS, IF PRACTICABLE.
 - Control of airspeed and rate of descent.
 - Drift correction and touchdown technique.
5. FLIGHT MANEUVERS, INCLUDING STEEP TURNS. Review.
 - Entry and recovery.
 - Instrument interpretation.
6. SLOW FLIGHT AND STALLS. Review.
 - Smooth entry and recovery.
 - Minimum loss of altitude.
7. 180 and 360 GLIDING APPROACHES. Directed practice.
 - Planning.
 - Arrival at key position.
 - Recognition of proper glide angle.
8. OBTAINING ASSISTANCE BY RADIO. Directed performance.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

9. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 17 Solo/Cross-Country

The first solo cross-country flight should be a "round robin" over a relatively simple course to an unfamiliar airport just over 50 nautical miles away. A VFR flight plan should be filed when feasible.

1. PREFLIGHT DISCUSSION. Approval of flight plan and weather analysis.
2. VFR NAVIGATION
3. UNFAMILIAR AIRPORT PROCEDURES. Careful performance of previously learned procedures.
 - Stay alert for unusual and unexpected conditions.
 - Exercise caution.
 - Find assistance from a flight instructor, or other competent authority if complications arise.
4. FILING OF FLIGHT PLANS.
5. POSTFLIGHT DISCUSSION.
 - Critique on all unanticipated events and operations.
 - Preview of next lesson.
 - Assignment of study material.

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 18 Solo/Cross-Country

This lesson provides additional cross-country experience, with emphasis on unfamiliar airport procedures. A 3 hour "round robin" to two new airports at least 50 nautical miles from each other should be arranged.

1. PREFLIGHT DISCUSSION. Approval of flight plan and weather analysis.
2. VFR NAVIGATION. Successful performance using pilotage, radio aids, and dead reckoning.
3. UNFAMILIAR AIRPORT PROCEDURES. Careful performance of previously learned procedures.
4. RADIO COMMUNICATION.
 - Radio discipline.
 - Obtaining weather information.
 - Reporting positions and tower contacts.
 - Radar traffic advisories.
5. POSTFLIGHT DISCUSSION.
 - Critique on all unanticipated events and operations.
 - Preview of next lesson.
 - Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Cross-Country Training Lesson 19 Solo/Long Cross-Country

This solo cross-country should be so planned as to meet the private certification requirement for the long cross-country. Landings must be made at three airports, one of which is at least 100 nautical miles from the point of departure. The flight must cover at least 300 nautical miles. A flight plan should be filed and the preflight briefing by the instructor should be particularly thorough. Anticipate 5 hours for this flight. With the preceding two solo cross-countries included, the requirement for solo cross-country flight time of 10 hours to airports at least 50 nautical miles from the home field should be met.

This lesson may be switched with Lessons 20 or 21, when required by weather or scheduling problems. The second phase check should be scheduled to follow this cross-country, but it is not necessary to cancel it if the cross-country is delayed. The phase check instructor will take circumstances into consideration during his flight with the student.

1. PREFLIGHT DISCUSSION. Approval of flight log and weather analysis.
2. FILING AND CLOSING OF FLIGHT PLAN.
 - Awareness of the responsibility for this action.
 - Knowledge of services provided.
3. VFR NAVIGATION.
 - Importance of recording time accurately and double checking.
 - Importance of careful attention to heading.
 - Continued awareness of flight progress and track.
 - Use of pilotage, radio aids, and dead reckoning.
4. ENROUTE RADIO COMMUNICATIONS.
 - Normal and emergency uses.
 - Radio discipline.
 - Importance of position reports.
5. UNFAMILIAR AIRPORT PROCEDURES. Careful performance of previously learned procedures.
6. AIRPLANE SERVICING.
 - Make personal check of airplane servicing.
 - Assume responsibility for tie-down and always doing a walk-around if the plane has been left.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

7. POSTFLIGHT DISCUSSION.

- Critique on all unanticipated events and operations.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:

Ground Inst:

Student Pilot: _____

Proficiency Lesson 20 - Phase Check Dual-Local

Active preparation for the private pilot flight test begins with this lesson. The FAA Private Pilot Flight Test Guide should be used for guidance on the procedures and standards to be applied to all flight maneuvers. The phase check instructor will give an independent evaluation to the student and the student's instructor so that they might make effective and efficient preparations for the flight test. The student should not "prep" extensively for this phase check as this might defeat the purpose of pointing out where further dual and solo practice might be best spent.

1. PREFLIGHT DISCUSSION. Flight test standards and review.
2. SLOW FLIGHT AND STALLS.
 - Coordination of controls.
 - Entry and recovery from stalls.
 - Adherence to tolerances.
3. MEDIUM TURNS TO HEADINGS.
 - Entry and recovery.
 - Altitude control.
 - Airspeed control.
 - Adherence to tolerances.
4. 720 TURNS ABOUT A POINT.
 - Planning and entry.
 - Altitude control.
 - Airspeed control.
 - Recovery on predetermined heading.
 - Adherence to tolerances.
5. AIRPORT PROCEDURES.
 - Radio discipline and adherence to ground, tower, and/or unicom common practices.
 - Traffic avoidance in the pattern.
 - Correct departure and entry into pattern according to instructions or standard procedures.
 - Adherence to tolerances.
6. NORMAL AND CROSS-WIND TAKEOFFS AND LANDINGS.
 - Coordination of controls.
 - Airspeed and drift control.
 - Smoothness and planning.
 - Adherence to tolerances.

7. FULL STALL LANDINGS.

- Flare and touchdown technique.
- Airspeed control.
- Adherence to tolerances.

8. RECOVERY FROM UNUSUAL ATTITUDES INCLUDING SPIRAL DIVES.

- Instrument interpretation.
- Power coordination.
- Adherence to tolerances.

9. POSTFLIGHT DISCUSSION. Phase check instructor's estimation of student's strong points and areas needing most practice and further dual.

- Review of lesson:

- Preview of next lesson.

- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Proficiency Lesson 21 Dual-Night Local

This lesson familiarizes the student with the special considerations and problems characteristic of flight at night. Due to circumstances, the student may already have considerable exposure to night flying. This lesson is meant as a check-list to insure that any areas not yet covered will receive attention. It is recommended that the period start in twilight so the student has experience in the transition from daylight to night flight conditions.

1. PREFLIGHT DISCUSSION. Instruction and review of phase check.
2. DIFFERENCES IN VISUAL REFERENCES AVAILABLE AT NIGHT.
 - Reduced number of objects visible.
 - Peripheral vision used at night.
 - Importance of preserving night vision adaptation.
3. TAKEOFF AND DEPARTURE ALIGNMENT TECHNIQUES.
 - Select relatively distant reference points.
 - Establish climb attitude following takeoff with positive rate of climb.
 - Maintain separation with other aircraft.
4. POWER APPROACH AND LANDINGS.
 - Attitude and power adjustment.
 - Approach path angle.
 - Airspeed control.
 - Touchdown and rollout.
5. USE OF LANDING LIGHTS.
 - Power required.
 - Technique in using.
 - Cooling problem and lamp life.
6. INTERPRETATION OF AIRCRAFT AND OBSTRUCTION LIGHTS.
 - Recognition of aircraft direction of flight and right of way from observed navigation lights.
 - Navigation light angles of visibility.
 - Interpretation of obstruction lights.
7. FLIGHT MANEUVERS OVER DARK AREAS (When feasible).
 - Absence of visual references.
 - Importance of instrument interpretation.
 - Likelihood of loss of VFR control.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

8. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Proficiency Lesson 22 Dual Solo-Local

This lesson is dual and solo flights as necessary to bring the student to flight test standards in all preflight and airport operations, including takeoff and landings.

1. PREFLIGHT DISCUSSION. Further review of phase check.

2. PREFLIGHT OPERATIONS.

- Certificates and documents.
- Airplane performance and limitations.
- Weight and balance.
- Weather information.
- Line inspection.
- Airplane servicing.
- Engine and systems preflight check.

3. AIRPORT AND TRAFFIC PATTERN OPERATIONS. (Day and night).

- Radio communications and ATC light signals.
- Airport and runway markings and lighting.
- Taxiing.
- Traffic pattern.
- Collision avoidance precautions.
- Wake turbulence avoidance.

4. TAKEOFF AND LANDINGS (Day and night).

- Normal and crosswind takeoffs.
- Normal and crosswind landings.
- Short-field takeoffs and maximum climbs.
- Short-field landings.
- Soft-field takeoffs.
- Soft-field landings.
- No-flap landings.
- Power loss on takeoff.
- Power off accuracy landings.

5. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of next lesson.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Proficiency Lesson 23 Dual Solo-Local

This lesson is dual and solo flights as necessary to bring the student to flight test standards in all basic airwork and navigation. At its conclusion, the student should be ready for his final lesson with the instructor.

1. PREFLIGHT DISCUSSION. Further review of phase check.

2. GROUND REFERENCE MANEUVERS.

- "S" turns across a road.
- Rectangular course.
- Turns about a point.

3. SLOW FLIGHT AND STALLS.

- Maneuvering at minimum controllable airspeed.
- Imminent stalls.
- Full stalls.
- Power off.
- Power on.
- Departure.
- Approach.
- Accelerated.

4. MANEUVERING BY REFERENCE TO INSTRUMENTS.

- Straight and level.
- Climbs.
- Turns.
- Descents.
- Unusual attitudes.
- Use of radio aids.
- Use of radar or DF heading instructions.

5. CROSS-COUNTRY FLYING.

- Flight planning.
- Following flight as planned.
- Pilotage.
- Dead reckoning.
- Use of radio navigation.
- Diversion to an alternate.
- Lost procedures.
- Partial or complete power malfunctions.
- Systems or equipment malfunctions.

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

6. POSTFLIGHT DISCUSSION.

- Review of lesson.
- Preview of practice oral practical tests.
- Assignment of study material.

Date lesson completed:

CFI:

Flight Time:
Ground Inst:

Student Pilot: _____

Proficiency Lesson 24 Dual Recommendation

This lesson should consist of the private pilot practical test, conducted by the instructor exactly as such test are conducted by examiners. The student should be able to perform all required procedures and maneuvers in accordance with the current Private Pilot - Practical Test Standards edition.

1. PREFLIGHT DISCUSSION. Practical test phase I (oral).
2. PRIVATE PILOT FLIGHT TEST. Evaluation by the instructor.
3. POSTFLIGHT DISCUSSION.
 - Critique of performance.
 - Preview of practical test.
 - Assignment of study material.
4. VERIFICATION OF FLIGHT EXPERIENCE REQUIREMENT.

Requirement:

- Total: 40.0 hours
- Flight Instruction: 20.0 hours
- X-C: 3.0 hours
- Night: 3.0 hours
- 10 takeoffs & landings
- Prep: 3.0 hours last 60 days
- Solo: 10.0 hours (Optional: 10.0 additional solo)
- In Airplanes: 10.0 hours
- X-C: 10.0 hours & one long
- Tower: 3 takeoffs & landings

APPLICANT'S PRACTICAL TEST CHECKLIST

1. APPOINTMENT WITH EXAMINER.

- Name: Weight:
- Time / Date:
- Phone:

2. ACCEPTABLE EQUIPMENT:

- Airplane with dual controls.
- View limiting device.
- Aircraft documents:
- Airworthiness Certificate.
- Registration Certificate.
- Operating Limitations (including weight balance).
- Aircraft Maintenance Records: Airworthiness inspection.
- FCC Station License if applicable.

3. PERSONAL EQUIPMENT:

- Current aeronautical charts.
- Computer and plotter.
- Flight plan form.
- Flight logs.
- Current AIM.

4. PERSONAL RECORDS:

- Medical and student pilot certificate.
- Completed application for a private pilot certificate (FAA Form 8710-1).
- Airman written test report: (AC Form 8080-2).
- Logbook with instructor's endorsement.
- Notice of disapproval (if applicable).
- Examiner's fee of: \$

5. On return to SPINKS airport, what must be established before entering the control zone?
6. Describe the significance of the following airspeed markings: White arc:
Green arc:
Yellow arc:
Red line / V_{ne} :
7. What is maneuvering speed and how is it affected by aircraft weight?
8. What is the significance of the recommended glide speed?
9. What effect do flaps have on climb performance?
10. What effect does a tailwind have on landing performance?
11. Draw the rectangular landing pattern for runway 35L at SPINKS Airport:

Copyright by Rex Williams 2004 Email usaflite@aol.com for permission to use!

12. Draw the rectangular landing pattern for runway 17R at SPINKS Airport:

13. What are the 3 primary communication frequencies at SPINKS?

Weather:

Ground:

Tower:

14. How much fuel does your airplane hold in gallons? In hours of flight?